



Fisheries

Harvest strategies for Indonesian tropical tuna fisheries to increase sustainable benefits

Overview

Indonesia is the second largest producer of fishery products in the world and the largest producer of tuna, contributing to around 15% of global production.

Its fishing fleet is diverse, stretching from the eastern Indian Ocean to the Western and Central Pacific Ocean, and in recent years into the Southern Ocean.

The geographic location and the importance of tuna for economic development, livelihoods and food security make Indonesia a central member of three tuna Regional Fisheries Management Organisations (RFMOs).

Tuna RFMOs determine research, monitoring and reporting requirements that members are obliged to meet.

Information underpinning assessments of tuna in Indonesian waters remains quite limited, resulting in high levels of uncertainty in stock status and productivity.

Hence, assessing the sustainability of current levels of fishing and impacts on future yields is problematic. Indonesia currently lacks the operational management tools required to manage its tuna fisheries to maximise benefits and minimise risks of overfishing.



KEY FACTS

ACIAR Project No. FIS/2016/116

Duration: February 2018 to January 2022 (5 years)

Target areas: Indonesia

Budget: A\$2 million

Project Leader

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Key partners

- Centre for Fisheries Research, Indonesia

ACIAR Research Program Manager

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Objective

The project aims to enable Indonesian fisheries scientists, industry actors and managers to improve the effectiveness of monitoring and management systems for Indonesian tuna fisheries. The project will contribute to the longer-term goal of improving economic and social benefits, while reducing the conservation risks to these important stocks.

This project's specific objectives are to:

- Facilitate policy and technical consultative processes for the development of the Harvest Strategy Framework for the tropical tuna fisheries in Indonesia.
- Determine the productivity of skipjack, yellowfin and bigeye tuna in Indonesia by estimating relevant life-history parameters (age, growth, reproduction).
- Examine the potential social and economic impacts of alternative management measures through surveys and bioeconomic modelling.
- Evaluate operational harvest strategies for tropical tuna in Indonesia's Fisheries Management Areas 713–715 and provide technical advice to the Ministry of Marine Affairs and Fisheries (MMAF) on selection and implementation of trial harvest strategies.
- Develop an operational capability plan for Indonesian tuna fisheries science and engagement in the relevant RFMOs.

Expected scientific results

- Initial Harvest Strategy framework for yellowfin and skipjack tuna developed and formalised.
- Consistent monitoring protocols and sampling design developed across different monitoring programs.
- Identification of key information gaps and required research activities.
- New knowledge of population biology.
- Fisheries scientists and government agencies in Indonesia more active and prominent in international pelagic fisheries science arenas, including Scientific Committees of tuna RFMOs.
- Extended publication records of scientists in both Indonesia and Australia.
- Reduced uncertainty in regional stock assessments and harvest strategies.

Expected outcomes

- Harvest Strategy Framework adopted under the National Tuna Management Plan.
- Improved understanding of Directorate General for Capture Fisheries and Centre for Fisheries Research staff in implementing Harvest Strategy based on Australian and relevant international experiences.
- Improved understanding of productivity of yellowfin, bigeye and skipjack tuna in the region.
- Improved baseline knowledge of social and economic status of tuna fisheries in Indonesia through development of database.
- Coverage and coordination of national tuna monitoring improved and uncertainty in total catch and effort by Indonesian tuna fisheries reduced.
- Well-developed skills of Indonesian scientists in tuna reproductive biology.
- Export of selected Indonesian tuna products approved under EU sustainability requirements.
- Improved institutional communication and coordination mechanisms for translating science into policy for domestic and international tuna fisheries management.

