

# Improved sustainability of the demersal line fishery in Tonga

Working towards improved governance, management, economic and biological sustainability



# Supporting the domestic fishing industry

The Tongan deepwater demersal line fishery is a valuable source of income, livelihood, and social well-being for the people of Tonga. The fishery has a history of boom-and-bust cycles with fluctuating catches and poor economic returns. Tonga's Ministry of Fisheries (MoF) and National Fisheries Council (NFC) are working with NIWA and the Pacific Community (SPC) to develop a well-managed, economically and biologically sustainable fishery that could be a model for demersal line fisheries throughout the Pacific region.

The project has three long-term outcomes:

- **Increased revenue and business confidence** by undertaking economic, market, and social analyses, identifying a value chain that maximises return, increasing the diversity of catches and markets, and implementing changes to the value chain to enhance value.
- **Improved governance and robust decision-making** by revising the Deepwater Fishery Management Plan (DFMP) to include harvest control rules, in-season catch monitoring, and an adaptive management framework for effective and transparent decision-making.
- **Biologically sustainable fishery established** by developing monitoring methods, strengthening MoF procedures and capacity to monitor and manage the fishery, and diversifying catches to alternative target species.

Capacity building of MoF and of stakeholders across the value chain, and gender and social inclusion, are cross-cutting themes.

The project is funded by the New Zealand Ministry of Foreign Affairs and Trade (MFAT) under the New Zealand Aid Programme. It is coordinated by a Project Management Group involving MoF, NFC, the Fafine 'o Tonga Ngatai Women in Fisheries Group, and Tongan Fishing Industry representatives along with NIWA, SPC, and New Zealand's Ministry of Primary Industries (MPI). The project was originally implemented in 2015 as a five-year, two-phase activity. Due to the COVID-19 pandemic, the project is now scheduled for completion in June 2023.

# Key project activities

## In Phase 1 (2015–2016) the project:

- Undertook economic, market, gender and social inclusion analyses of the fishery.
- Developed a strategic economic development plan and implementation pathway for the fishery.
- Developed preliminary stock assessment and spatial population models for the main target species, flametail snapper.
- Undertook cost-benefit analyses of potential fishery monitoring methods.
- Developed and implemented harvest control rules under the DFMP to ensure robust and transparent decision-making.
- Undertook preliminary fishing trials for bluenose and associated species to diversify the fishery.
- Built capacity of MoF staff to assess and monitor fisheries.
- Supported the fishing industry through training in accounting, finance, and business practices.

## In Phase 2 (2017–2023) the project is:

- Supporting improved economic returns and domestic food security by diversifying catches through:
  - training fishers in alternative fishing techniques and gears to target deepwater and nearshore squid, small pelagic fishes, and nearshore pelagic fishes such as tuna, and
  - equipping fishers with these gears.
- Undertaking further evaluations of the bio-economic sustainability of the fishery and strategies to maximise sustainable economic returns to Tonga.
- Facilitating regular meetings between stakeholders to improve understanding of the aspirations of different stakeholders for the fishery.
- Exploring alternative export markets for deepwater snapper species.
- Supporting the NFC with the development of their Strategic Plan.
- Supporting continued catch monitoring, including of catch volumes and fish size.
- Developing analytical packages to monitor fishery performance.
- Updating stock assessments of flametail snapper to evaluate stock status.
- Undertaking whole-of-fishery analyses to evaluate recent changes to the fishery.
- Continuing to build capacity and practical skills of MoF staff to monitor and manage the fishery.
- Assisting with reviews of DFMPs, and the development of successive DFMPs.
- Improving capacity and practical skills of fishers to improve the safety and efficiency of their business operations and stabilise product supply to markets.
- Training fish processors and vendors in fish hygiene, handling, and processing, and providing new equipment, to improve marketability of catch, increase revenue, and support safer and more comfortable working conditions.
- Training fish vendors in accounting and business practices to increase business confidence.
- Investing in the development of a local market for deepwater squid through marketing campaigns, promotions, and public tastings.

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This project is funded by the New Zealand Ministry of Foreign Affairs and Trade under the New Zealand Aid Programme.

The project partners thank MFAT, MPI, the Fafine 'o Tonga Ngatai Women in Fisheries Group, the New Zealand Tonga Business Council, and the deepwater fishery licence holders and fishers for support.

