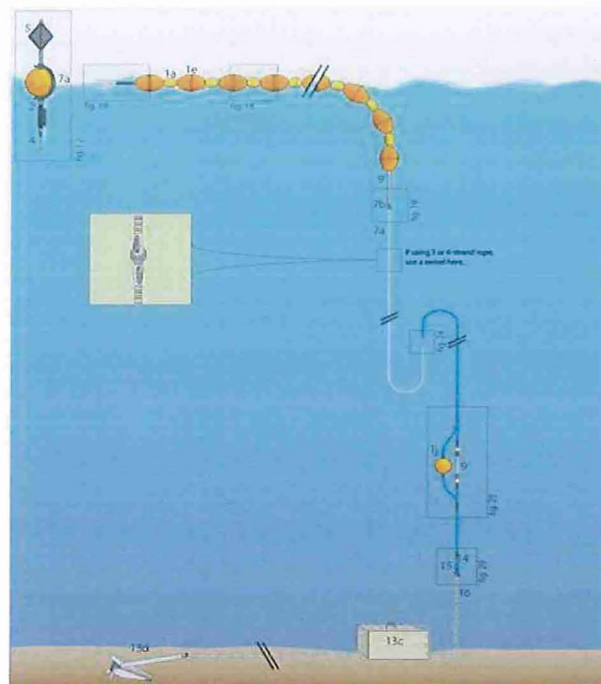


KINGDOM OF TONGA



NATIONAL ANCHORED FISH AGGREGATING DEVICE (aFAD) MANAGEMENT AND DEVELOPMENT PLAN 2023-2028



MINISTRY OF FISHERIES



Food and Agriculture
Organization of the
United Nations



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FOREWORD

Tonga is a small island developing state with limited land and natural resources. The marine environment plays a crucial role in providing food and supporting livelihood for the people of Tonga. Therefore, it is important to sustainably manage our coastal resources.

Over the last few decades, coastal fisheries have been heavily impacted from overfishing, natural disasters and climate change presenting the need for fishers to manage and diversify fishing activities.

The development and establishment of the special management areas (SMAs) in 2002 furthered the ability for communities to share responsibility for managing their direct coastal fishery resources, however work still needs to be done to improve and support fisheries programs that are directly related to the stability and resilience of coastal fisheries.

The devastation to coastal habitats and fishers' resources during the Hunga-Tonga-Hunga-Ha'apai volcanic eruption and subsequent tsunami in January 2022, has shown how threatened yet resilient the communities are, and it is the Ministry continuing aim to help and ensure recovery and restoration of the fisheries sector and to ensure that fisheries resources continue to enhance food security and provide adaptation activities to cope with future shocks and disaster events.

This Anchored Fish Aggregative Device Management and Development Plan has been developed to strengthen current initiatives on FADs and to align the legal framework to enhancing coastal fisheries programs. This work has been conducted in partnership with consultants through the Food and Agriculture Organization (FAO) of the United Nations, who has been a critical and strategic partner to the Ministry of Fisheries, and we wholeheartedly thank them for the continued support and efforts for developing our fisheries programs.

The Ministry has great confidence that through continued partnerships, shared management, knowledge and experience, we will further the sustainable management and development of our coastal fisheries for the benefit of the economy, communities and conservation of fisheries resources.



Lord Fohe
Acting Minister for Ministry of Fisheries



1/8/23
Date

PART 1 – GENERAL INTRODUCTION

Oceanic fish such as tunas are often found gathered around or under floating logs and other drifting objects and fishers noticed that they often had higher catches when they fished near a floating object compared to when they fished in the open ocean. In the early 1900s, fishers began building fish aggregating devices from bamboo and other materials to attract or aggregate schools of fish. Anchored FADs have been used in the Pacific Island Countries and Territories (PICTs) since the late 1970's. Over the last 30 years, substantial research and effort has been put into improving FAD design and technology to enhance the longevity of FADs and minimize costs. The use of anchored FADs by both small-scale fishers and industrial fishing fleets in the Pacific is now widespread. Within the small-scale artisanal fisheries sector, anchored FADs are increasingly important to support fisheries management and development aspirations.

Implementing a successful National anchored FAD program in Tonga requires collaboration and coordination between MoF, other government departments, fishers, coastal communities, regional and local stakeholders and funding bodies. The Kingdom of Tonga National FAD Policy 2021 – 2030 provides the overall guidance for the National FAD program, while the current Kingdom of Tonga National anchored FAD Management Plan 2023 -2028) is a compilation of current FAD management practices and goals to be carried out over the coming 3 years to improve food security and fishing diversification at small-scale artisanal and community levels.

1.1 History and status of anchored FADs in Tonga

The Kingdom of Tonga has had an adhoc FAD programme for many years, with the first FADs deployed by Fisheries in the early 1980s. In the early 1990's FADs were deployed to support charter and game fishing groups. Currently MoF are deploying FADs to promote offshore fishing as an alternative fishing ground for coastal fishers (as part of the Special Management Area (SMA) programme) and to support the fisheries disaster response following the Hunga-Tonga Hunga-Ha'apai (HT-HH) volcanic eruption and tsunami. Local sportfishing groups have and continue to deploy anchored FADs for their specific use. There are currently an estimated 10 anchored FADs deployed in Tongan waters.

1.2 Current opportunities and constraints

While anchored FADs have been successful to date in Tonga, the development of aFADs has not reached its full potential. An analysis of the constraints and opportunities for aFADs was developed, in consultation with stakeholders, to diversify fishing to enhance food security and improve livelihoods of Tongan people. Table 1 summarises the opportunities and constraints identified through consultations with SMA communities, sport fishing groups, trolling fishers, snapper licence holders, National Fisheries Council (NFC) and other relevant stakeholders in Eua, Ha'apai, Vava'u, Tongatapu between December 2022 and March 2023. These findings were used in formulating the objectives of the National aFAD program for Tonga (section 2.4).

Table 1. Constraints and Opportunities for anchored FADs in Tonga as identified during stakeholder consultations.

Constraints	Opportunities
Markets	
• Lack of fish preservation (e.g. ice) for maintaining fish quality • Access to markets	• Access to international market for high quality fish • Communities support value added products, but more trainings is needed
Governance, Management and Compliance	
• FAD Fish catch data collection a burden for communities • Fishers more time to submit collected data especially from remote areas and consider the costing • Vessel license fees onerous for communities • Lack of funds to strengthen community data collection and compliance monitoring • Mobile network in remote islands is poor thus it is difficult to send images of log sheet	• Integration of FAD data collection into existing SMA reporting forms • Use their mobile phone to take a picture of their log sheet and sent to MoF and keep the original to deliver later when they have a trip to MoF office.
Awareness and understanding of FAD location and FAD 'ownership'	
• Lack of knowledge of FAD deployment locations (sub-surface FADs) • GPS provided by VEPA was only one and if the community have 4 boats • Communities requested 'community name' on FADs deployed close to their areas to avoid people from other areas travel longer to fish	• Provision of marker buoys, maps, and other technology to located FADs. • Include community members in deploying FAD to feel some ownership and have trouble of this task
Access to FADs, skills and technology	
• Limitations in FAD fishing techniques • Location of FAD deployments (limited FADs) • Lack of motorised vessels • Some FADs deployment is very far away and not safe	• Alternative cost-effective fishing method training (reduce trolling expense, increase catch) • Country wide network of FADs with SMA community input into FAD deployment locations
Fishing vessels licensing and registration	
• Stakeholders lack of support to fishing vessel licensing of fishing vessels (safety requirements from marine and port authority). • Consideration of opportunistic fishing at aFADs (e.g., transport vessels) that fish FADs on the way home.	• Majority opt for fishing vessels to be register to fish around FAD • Requested if MoF applies licensing only to commercial vessels or set an exact length of boats to apply licensing to.

1.3 Institution, legal and policy framework

The main legal instrument for the management and development of FADs in the Kingdom is the Fisheries Management Act (2002). The Fisheries (Conservation) Regulations (2008) and the Fisheries (Coastal Communities) Regulation (2009) provide the regulatory framework guiding the aFAD Management and Development Plan and will complement other management and development plans including the Tonga National Tuna Fishery Management and Development Plan (2023-2028) and the Kingdom of Tonga revised Shark Plan 2023-2027. Tonga's Ministry of Fisheries (MoF) is the government agency mandated under the Fisheries Management Act to manage and develop the country's fisheries resources including the FAD fishery.

This management and development plan is developed in line with National overarching policy documents including the Tonga Strategic Development Framework II (2015–2025), and MoF policies and strategies such as the FAD Policy 2021-2030 and Tongan Fisheries Sector Plan 2016–2024 and will form the basis of operationalizing the use of FAD-related goals under those overarching policies.

1.4 Government support to anchored FADs

Currently MoF has ongoing funding for FADs through the SMA program. In addition, project-based funding for FADs is available through projects such as the World Bank Pacific Regional Oceanscape Program (PROP) and FAO. MoF will work to increase the government contribution to FADs in the annual recurrent budget, while seeking supporting donor funding for the FAD program. MoF will also explore cost sharing arrangements with the private sector, such as fishers, fisher clubs and associations.

PART 2: NATIONAL FAD MANAGEMENT PLAN

2.1 Goal, purpose and scope

2.1.1 Goal

An ecological and economical sustainable National FAD program to diversify fishing to enhance food security and improve livelihoods of Tongan people. This will be achieved through maximum FAD longevity and stability through the adoption of optimal designs and promotion of active FAD monitoring and maintenance programs.

2.1.2 Purpose

The purpose of this plan is to manage the sustainable development and implementation of Tonga's national FADs program.

2.1.3 Scope and application

The National Anchored FAD Management Plan 2023-2028 applies to all anchored FADs deployed in the Kingdom of Tonga and the associated fisheries including the following:

1. Fishing for any fish species within 10km of an anchored FAD;
2. Vessels licensed to deploy FADS
3. Vessels registration to fish at anchored FADs
4. Vessels licensed to fish at anchored FADs if they sell their catch
5. Management and monitoring of catch and associated processing

2.2 Authorities, stakeholders and roles

2.2.1 Anchored FAD Management Advisory Committee

The Fisheries Management Act (2002) requires the establishment of a FAD management advisory committee. The advisory committee is responsible to advise the Minister on matters relating to the conservation, management, sustainable utilization and development of FADs and associated fisheries in the Kingdom.

The Minister of Fisheries will establish a FAD Committee to provide input and oversight to all aspects of the Tonga National aFAD program. The committee will be chaired by the Ministry of Fisheries Chief Executive Officer with up to twelve (12) members that are nominated or appointed to represent other related government departments, different sectors of the fishing industry, sports fishers, women's interests, coastal communities, SMAs and other stakeholders. More specifically the FAD Committee will include the following:

1. Chief Executive Officer, Ministry of Fisheries (Chairman)
2. One representative from Marine and Ports
3. One representative from Small Scale Fisheries
4. One representative from sports fishing sector nominated by the Sports Fishing Association.
5. One member representing commercial fisheries interests nominated by Fish Exports Association
6. One member representing women's interests nominated by Minister
7. Two members representing local fishermen nominated by Minister
8. One member representing Coastal communities nominated by Prime Minister

9. One member representing SMAs nominated by Minister
10. Such other persons not exceeding two whom Chief Executive Officer may think fit to appoint.

2.2.2 Tongan Ministry of Fisheries

The Ministry of Fisheries is the mandated government agency, through the Fisheries Management Act, as the primary regulatory institution to control and oversee FAD management and development in the Kingdom of Tonga. The role of the Ministry of Fisheries is to:

- Promote the conservation, management, sustainable utilization and development of anchored FADs and their associated fisheries
- Be responsible for financing and implementation of the National FAD Management Plan
- Undertake the maintenance of FADs deployed by the Ministry of Fisheries

2.2.3 Other stakeholders

Name of Stakeholder	Responsibilities
Marine and Ports Division	• Sea safety equipment required • Sea safety requirements including qualifications
Ministry responsible for environment	• Any conservation issues such as interactions with turtles, sharks, dolphins etc.
Local Government (District town officers/outer islands section)	• Monitoring of FAD maintenance • Catch data • Catch reporting • Compliance in using and fishing around FAD • Collaboration and awareness
Fishers association	• Promoting and organizing of commercial fishers • Marketing options • Providing fish handling and processing infrastructure
All FAD users (subsistence, artisanal, commercial, recreational, charter/sports fishers etc)	• Monitoring of FAD maintenance • Catch reporting • Compliance in using and fishing around FAD
Other key partners (NGOs, Donors, academic institutions etc.)	• Technical support • SPC supports with catch data • Analysis and reporting of catch data • FAO provides logistics support

2.3 Term of the Program

The National aFAD Management Plan will be effective once endorsed by the Minister of Fisheries. The plan will run for the period of 5 years. The Plan will be reviewed after 2 years and readjusted accordingly. Positive results shall be merited by increased funding and poor results may see a de-prioritization of funding.

2.4 Objectives of the National FAD Management plan

The Objectives of the National aFAD Management Plan are as follows:

- 1) To maintain a sustainable fishery through effective management
- 2) To ensure the fishery contributes to food security and livelihoods for all Tongans
- 3) To promote safer offshore fishing
- 4) To enhance engagement and cooperative management of the fishery

Objective 1: To maintain sustainable fishery through effective management	
STRATEGY	INDICATORS
1.1: Limit the number of vessels permitted to fish around a deployed FAD, only allowing vessels from nearby SMA areas. 1.2: Maintain an active inventory of FAD hardware and materials in a secure location to promote the rapid replacement of lost FADs. 1.3: Promoting accurate and complete FAD catch monitoring, data processing and reporting 1.4: Maintain registry of active and in place FADs for evaluating longevity of FAD location	i. Number of vessels registered to fish around specific FAD ii. Number of reserved FAD available iii. Number of vessels reporting catch iv. Number of log sheet submitted to MOF v. Increase of pelagic species to domestic market vi. Number of active FAD in place
Objective 2: To ensure the fishery contributes to food security and livelihoods in Tonga	
2.1: Support the training of the fishing community in FAD fishing technique 2.2: Promote producing added value product from catch (smoked fish) 2.3: Provide public awareness on food production options to conserve FAD catch	i. Number of training conducted to SMA communities ii. Number of women engage in catch processing iii. Number of awareness program conducted
Objective 3: To promote safer offshore fishing	
3.1: Promoting safety at sea for FAD fishers 3.2: Provide trainings for safety at sea	i. Number of registered vessels with safety equipment on board. ii. Number of trainings conducted such as first aid training, swimming and safety related trainings with fishers.
Objective 4: To enhance engagement and cooperative management of the fishery	
4.1: Supporting outreach and communication with the aFAD fishing community to understand and improve the FAD program; 4.2: Increase knowledge of stakeholders of the functioning of FAD	i. Number of outreach program ii. Number of stakeholders engage iii. Number of women engage

PART 3 – FAD MANAGEMENT PLAN IMPLEMENTATION

3.1 Management measures

The following management measures will be implemented to sustainably manage the utilization and development of FADs in Tonga.

3.1.1 Number of FADs

Tonga Ministry of Fisheries aims to maintain a network of 50 FADs around Tonga by 2030. MOF aims to deploy and maintain at least 7 FAD each year. All FADs will be deployed within the territorial sea (12 nautical miles) depending on the depth of water and location to ensure access to small-scale fishers and avoid any interaction with the tuna longlining fishery that fishes outside 12 nautical miles and migratory whale routes.

MoF will maintain a supply of FAD materials in Tonga for at least 5 complete FAD units. When the supplies drop to this number, MoF will place orders to ensure additional FAD materials are imported to replenish the available supply of FAD materials in Tonga.

Taking into consideration the geographical area, access points and requests from fisher communities, the following table provides a provisional number of FADs to be deployed and maintained over the next 5 years. The numbers in the table below will be updated going forward.

Number of FADs in-water

2022	2023	2024	2025	2026	2027	2028	2029	2030
	8	7	7	7	7	7	7	50

3.1.2 FAD Deployment training

Tonga Ministry of Fisheries aims to involve our stakeholders particularly the SMA communities in deploying and monitoring of our FADs. This is to maximise involvement of our stakeholders and to feel ownership of our FADs.

3.1.3 Site Selection and Surveying

The position or site for FAD deployments will be agreed through consultation between the Ministry of Fisheries, the FAD Management Advisory Committee, other government departments (where applicable), local communities and fishers in each selected area. The following criteria will be considered when selecting sites:

- The location must not be within one nautical mile of a recognised shipping channel;
- The location must not be within a no-take or closed fishing area;
- Known migratory paths for whales will be avoided for FAD deployments;
- History of past aFADs in or close to the proposed site, and reason if known for the loss of the past aFAD;
- Bottom topography checked on appropriate chart for initial assessment of slope gradient, as steep slopes need to be avoided;
- Depth of water to avoid aFAD being deployed in depths too shallow or too deep;
- Strength of current in the area to avoid excessive stress on the aFAD system leading to early loss of the aFAD;

- Local or traditional knowledge of areas where tuna have been caught regularly;
- Distance from village and reef to avoid excessive travel time to get to aFAD;
- FADs may be deployed within the boundaries of a SMA, however, not in areas declared as no-take;
- Prevailing weather conditions as no point placing an aFAD in areas where it is generally too rough to get to and fish; and
- Number of fishers with suitable vessels in the proposed area to fish around the aFAD.

Once a suitable or several suitable sites have been identified, it is necessary to undertake a site survey at each location to validate if the site is suitable including the deployment depth and substrate profile. If deemed suitable, the GPS position of where the FAD will be deployed should be recorded. The SPC recommended site survey methodology (can attach this as an annex) should be used for site surveys using an appropriate deep-water echosounder, GPS and plotter.

3.1.3 FAD designs to be used.

Two main FAD designs are used in Tonga, the Indo-Pacific FAD design and the subsurface FAD design (Figure 1). The Indo-Pacific design incorporates a series of surface floats attached to negatively buoyant nylon multistrand rope spliced to positively buoyant polypropylene multistrand rope and attached to the anchor system.

The sub-surface design has a series of floats attached via polypropylene rope to the anchor system. The overall length of the sub-surface FAD design is less than the water depth, to reduce issues associated with sabotage. A small surface float may be attached with light nylon rope so that fishers are able to locate the FAD initially and formulate landmarks for locating the FAD once the surface float is removed. A full description of these FAD designs and materials used can be found in Sokimi et al 2020, SPC FAD manual.

MoF will continue to explore anchored FAD design options and/or modifications that are durable, cost effective and reduce entanglement for migratory whales. The aim of any changes to the design will be to increase the lifespan of deployed FADs to withstand natural disasters and reduce the overall costs of the FADs.

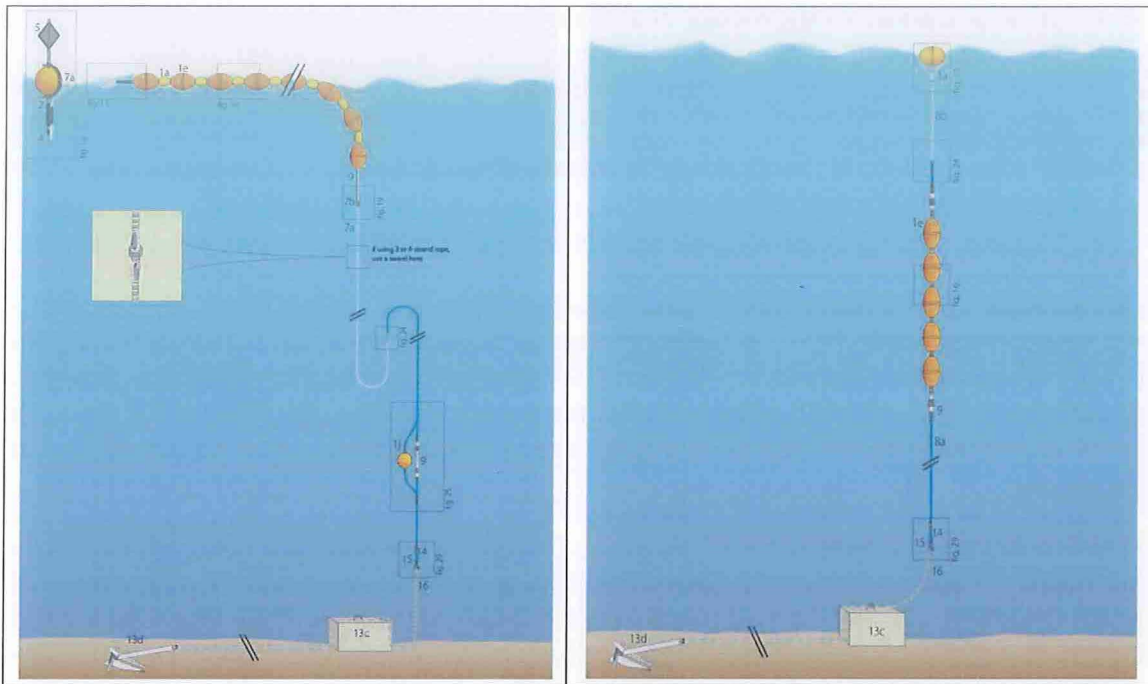


Figure 1: Indo-Pacific FAD design showing the upper floatation system used in offshore areas (left) and subsurface FAD design showing the temporary surface marker to aid fishers to locate the FAD initially (right). (Source: Sokimi et al 2020, SPC FAD manual).

3.1.4 Deployment, ownership and maintenance of aFADs

All locations for deploying FADs need to be agreed and cleared by MoF before FADs are deployed in accordance to Section 7 of the Fisheries Management (Conservation) Regulations 2020. Once clearance is granted, FADs may be deployed, owned and maintained as follows:

- MoF may deploy FADs within a SMA as part of the SMA programme, once the appropriate forms have been completed and all fees paid, with the ownership and maintenance of the FAD transferred to the local communities managing the SMA.
- MoF will also deploy FADs outside SMAs for use by small-scale fishers and MoF retains ownership of these FADs and will maintain them.
- Fishing clubs once they have approval and clearance from MoF for where their FADs can be deployed, have completed all necessary forms and paid all fees, can deploy their FADs and retain ownership and maintain them.

Only MoF or the owners of FADs may attach their vessel to the FAD for FAD maintenance purposes only.

3.1.5 Registering of aFADs

Under Section 7 of the Fisheries Management (Conservation) Regulations 2020 it states that *"The Chief Executive Officer may, by notice published in a widely circulated newspaper, declare any fish aggregation device placed by the Ministry to be a designated fish aggregation device for the purpose of this regulation.* Therefore, once FADs are deployed, the position needs to be provided to MoF so they can be designated, registered, and gazetted accordingly, and the public made aware of the positions.

MoF will maintain a register of all aFADs deployed in Tongan waters and the register is open to the public to view.

3.1.6 Marking of aFADs

Section 7 of the Fisheries Management (Conservation) Regulations 2020 states that *“Any fish aggregating device which utilises a surface float shall be*

- a) Clearly marked with the name of the owner;*
- b) Equipped with a radar reflector; and*
- c) Equipped with white lights to be visible at night from 3 nautical miles”.*

3.1.7 Redeployment of lost FADs

The MOF shall be notified that a FAD has been permanently lost by providing the following information:

- a) The date of last sighting of the FAD;
- b) The location (latitude and longitude) recorded in degrees and minutes of last sighting;
- c) The FAD number; and
- d) The reporting dates.

The MOF will review this information and may give approval to deploy a replacement FAD depending on the circumstances. MOF will also consider the location if it is appropriate to redeploy a new FAD to minimize cost for redeployment and lost again.

3.2 Fishing Around FADs

All vessels used to fish around FADs are required to be on the MoF fishing vessel register and this includes commercial, artisanal, subsistence, charter, sports and recreations fishing vessels.

No fisher is permitted to attach their fishing boat or any fishing gear to a FAD. In addition, fishers are required to always stay at least 100m away from the FAD buoy system.

In addition, fishers wishing to sell any part of their catch will need the vessel to be registered as well as licensed with MoF on their fishing vessel license register.

3.2.1 Fishing FADs within a recognized SMA

FADs deployed within a recognized SMA can only be fished by people from the communities within the SMA area. Other fishers that have obtained a subsistence fishing permit or small-scale fishing permit from the appropriate SMA committee can also fish around the specified FAD, under the permit parameters.

3.2.2 Fishing FADs deployed by Fishing Associations or Clubs

FADs that are deployed by fishing clubs or associations are available for all to fish around provided the vessels are on the MoF fishing vessel register and they are licensed if they are to sell any of the catch.

3.2.3 Fishing technique training

MOF shall be responsible for providing trainings to fishers on varieties of fishing techniques that may assist them to increase catch from the fishing trip.

3.3 Sea Safety Requirements

All vessels 8m and above in length that are fished around FADs need to be seaworthy and carry all required sea safety equipment in accordance with the Shipping Act and Regulations.

Vessels that are less than 8m in length that are fished around FADs need to meet all sea safety requirements as covered in the sea safety equipment section of MoF's *"Small Vessel Registration Form"*.

3.4 Monitoring, Data Collection and Compliance

3.4.1 Monitoring and Data Collection

MoF uses the SPC-supported TUFMAN 2 database for recording all FAD deployments and the materials used; and the TAILS data collection application for recording all FAD associated catch from artisanal fishers. These tools allow for the production of reports using the DORADO system.

The fisher in charge of a fishing vessel fishing around a FAD is required to record all fishing activities using the MoF *"Regional standard artisanal fishing log sheet"* (ART 4) and provide the completed original form to MoF no later than five (5) days after the completion of the day to which the log sheet relates. Fishers in remote locations can work with MoF on a suitable timeframe for their provision of data. MoF may include other data provision requirements as needed.

Under the Fisheries Management (Conservation) Regulations it states *"A holder of a fish aggregating device license shall:*

- a) *Complete the FAD Fishing Log sheet, Form 3 of Schedule 13, for every fishing activity at the FAD including:*
 - i. *License Holder's name;*
 - ii. *Location of the FAD;*
 - iii. *Date of fishing;*
 - iv. *Fishing method;*
 - v. *Number of fish by species (scientific or common name);*
 - vi. *Total weight by species; and*
 - vii. *Total fishing hours; and*
- b) *Forward all completed FAD Fishing Log sheet to the Chief Executive Officer in their original and unaltered form no later than 24 hours after the completion of the day to which the log sheet relates."*

Fishers need to report any interactions with endangered or protected species so this can be documented.

3.4.2 Compliance

In case of non-compliance activities, MOF will follow a Standard of Procedure to improve behaviour and ensure compliance with this plan.

The fines and prosecution procedures are detailed in the FM2002, and relevant fisheries Act in general.

NATIONAL ANCHORED FISH AGGREGATIVE DEVICE FISHERIES MANAGEMENT AND DEVELOPMENT PLAN 2023 - 2028

IMPLEMENTATION SCHEDULE

IMPLEMENTATION PLAN	Implementation steps (What will be done? Tasks to achieve the strategy)	Key Performance Indicators (KPI)	Responsibilities (Who will do it?)	Update Status of Activities
Objective 1:	To Maintain sustainable fishery through effective management			
Strategy 1.1 Limit the number of vessels permitted to fish around a deployed FAD, only allowing vessels from nearby SMA areas.	i) Register of fishing vessels that will fish around specific FAD	All vessels that will fish around FADs shall be register	FCD/Licensing Section	
Strategy 1.2 Maintain an active inventory of FAD hardware and materials in a secure location to promote the rapid replacement of lost FADs.	ii) Inventory of FAD hardware and materials in a secure location at MOF to replace lost FADs	Number of reserved FAD available	FSD/Community Section	
Strategy 1.3 Promoting accurate and complete FAD catch monitoring, data processing and reporting	iii) Collect catch data from registered vessels iv) Collect log sheet of data from SMA communities v) Evaluate data from domestic market to identify if any increase of pelagic species	Number of vessels reporting catch Number of log sheet submitted to MOF Increase of pelagic species to domestic market	FSD/Offshore section/Inshore section	
Strategy 1.4	vi) Monitoring of active deployed FAD and evaluate why a	Number of active FAD in place	FSD/Community Section	

Maintain registry of active an in-place FADs for evaluating longevity of FAD location	redeployment is needed and assess longevity of FAD location			
Objective 2	To ensure the fishery contributes to food security and livelihoods in Tonga			
Strategy 2.1 Support the training of the fishing community in FAD fishing technique	i. Conduct training of fishing technique around FAD to SMA communities	Number of training conducted	FSD/Community Section	
Strategy 2.2 Promote producing added value product from catch (smoked fish)	ii. Conduct training to women in SMA communities on how to smoke fish.	Number of training conducted	FMDD/Planning	
Strategy 2.3 Provide public awareness on food production options to conserve FAD catch	iii. Produce awareness materials or conduct awareness program on food safety such as fish handling and processing	Number of awareness program conducted	FMDD/Planning	
Objective 3:	To promote safer offshore fishing			
Strategy 3.1 Promoting safety at sea for FAD fishers	i) On site check of registered vessels that they have safety equipment	Number of registered vessels with safety equipment on board	FMDD/Marketing	
Strategy 3.2 Provide trainings for safety at sea	ii) Conduct first aid and safety training for safety at sea	Number of trainings conducted	MOF seek assistance from red cross and HMAF	
Objective 4:	To enhance engagement and cooperative management of the fishery			
Strategy 4.1 Supporting outreach and communication with the aFAD fishing community to	i) Conduct outreach program to communities	Number of outreach program	FSD/Community	

understand and improve the FAD program				
Strategy 4.2 Increase knowledge of stakeholders of the functioning of FAD	ii) Conduct training to stakeholders and women's group	Number stakeholders engage Number of women engage	FSD/Community Section	

