



Makaia Loo

NIUTAO COASTAL FISHERIES MANAGEMENT PLAN

2024 - 2027



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Foreword



To begin with, the Niutao Coastal Fisheries Management Plan is called MAKAI A LAA.

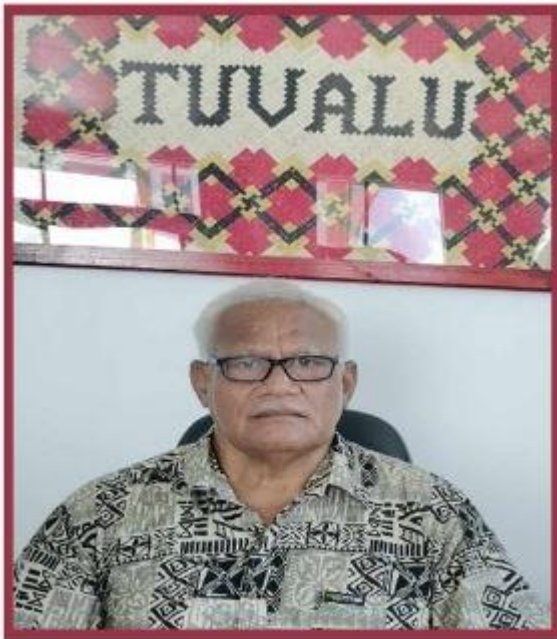
The island slogan MAKAI A LAA refers to the lead fisher's call to the front paddlers, to hold fast to his paddle as the wahoo is about to be caught. In reference to fisheries and island developments, it reminds the community, as well as scattered Niutao civil- servants, to hold fast to their paddles amidst the forward shift of the people for a better livelihood.

A handwritten signature in blue ink, appearing to read 'Tuitonga Pelosa'.

Tuitonga Pelosa
Ulualiki o Niutao



Statement from the Minister



The idea to develop fisheries management plans for the outer islands of Tuvalu came to light in 2021 as a result of the respective Island Strategic Plans that highlight fisheries as a key priority area.

In 2022, the Tuvalu Fisheries Department (the Department) commenced its work to collect fisheries information through a series of consultations with the outer islands' communities. A second series of consultations was held in the following year to validate the information collected previously. The Department also found that these communities find great value in having a management plan that provides guidance in their aspirations to sustainably manage and improve their coastal fisheries.

In light of the results from these consultations, the Department started to draft and formulate the different fisheries management plans for all the outer islands and to align them with the key objectives of existing plans like Te Kete (Tuvalu National Strategy for Sustainable Development 2021-2030), Tuvalu Fisheries Corporate Plan 2023-2025, and the respective Island Strategic Plans.

The successful management of each island's coastal fisheries resources lies heavily in the hands of the Falekaupule, Kaupule, and the people on the island. The Department will stand ready to provide technical and also partly financial assistance to each island community as requested.

Throughout the years, most of the work and services provided by the Department's Coastal Fisheries Section has contributed to the development process of the fisheries management plans. But these efforts would have been impossible without the continued support and financial assistance provided by our donor partners, for which I share my profound gratitude and appreciation – thank you!

I would like to express my sincere thanks to all the island communities in the outer islands, from the Falekaupule, the Kaupule, to groups of women, youth, and fishermen, for their continued support and trusting us to invest in this program. I look forward to your future cooperation in implementing this plan.

Also, fakafetai lasi to the New Zealand Ministry of Foreign Affairs and Trade for the financial and technical support of this work through the Tuvalu Fisheries Support Programme. I would also like to acknowledge the external review by the Pacific Community (SPC) and New Zealand Ministry for Primary Industries.

Lastly, my big fakafetai lasi to all staff of the Tuvalu Fisheries Department for their tireless efforts in achieving this important task.



Hon. Sa'aga Talu Teafa
Minister of Natural Resources Development

This plan comes into effect on the day it is signed and approved.

Signed on this 16th day of August 2024

Photograph credits

WanTech, Lotokufaki Kaitu, Niutao Kaupule



Definitions

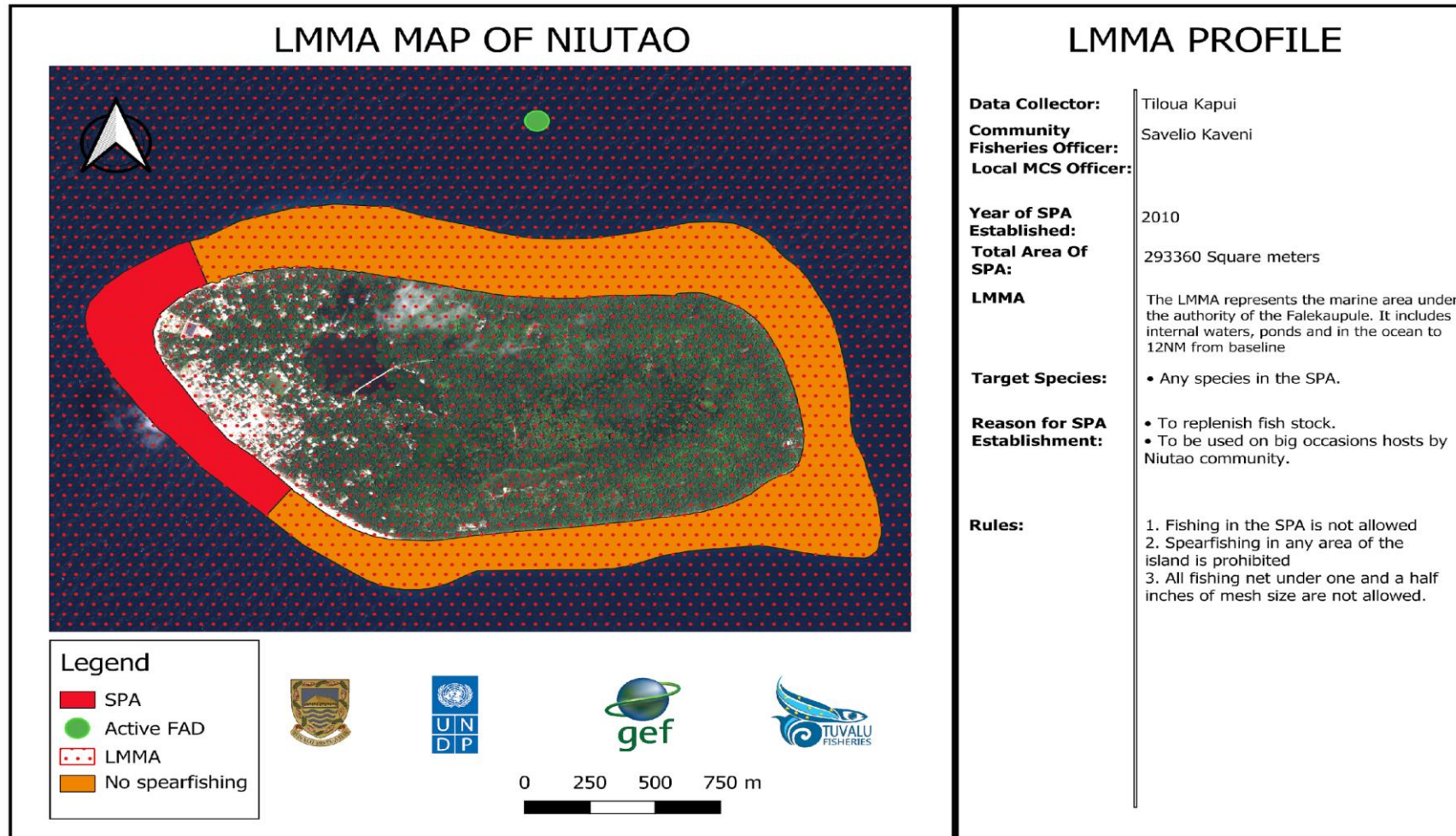
Unless otherwise expressed, words and expressions used in this plan have the same meaning as defined in the Marine Resources Act 2006 and Falekaupule Act 2008.

Aquaculture	The cultivation, propagation or farming of fish, whether from eggs, spawn, spat or seed, including rearing fish lawfully taken from the wild or lawfully imported into the country, or by other similar process
Baseline	The low-water line of the seaward side of the reef fringing the coast of any part of Tuvalu or bounding any lagoon waters adjacent to any part of the coast, or where a reef is not present, the low-waterline of the coast itself
Bye-law	A local law made by a specific island Falekaupule or as defined in the Falekaupule Act 2008
Creel Survey	A method to collect coastal fisheries data by interviewing fishers about the catch they have landed and their effort (i.e., fishing method and how long they have spent fishing)
FAD	A Fish Aggregating Device, and includes any floating object, whether anchored or drifting, used for the purpose of aggregating fish
Fish	Any marine or aquatic animal or plant, whether piscine or not, and includes shellfish, crustaceans, sponges, holothurians (beche-de-mer), sea urchins and turtles and their eggs
Gleaning	The hand gathering of fish from the intertidal zone
Locally Managed Marine Area (LMMA)	An area of nearshore waters and coastal resources out to 12 nautical miles that is largely or wholly managed at a local level by the coastal communities, land-owning groups, partner organisations, and/or collaborative government representatives who reside or are based in the immediate area
Natural ponds	Any naturally made body of still waters
Restocking	The deliberate and controlled introduction of additional individuals of a particular species into a body of water, such as a pond or the ocean, for the purpose of replenishing or enhancing the natural population
Special Protected Area (SPA)	A Special Protected Area within the LMMA under the Falekaupule area
Territorial Sea	that part of the sea adjacent to the coast of any island of Tuvalu that is within the 12 nautical miles measured from the baseline

Abbreviations

LMMA	Locally Managed Marine Area
SPA	Special Protected Area
TFD	Tuvalu Fisheries Department
FAD	Fish Aggregating Device

Figure 1. Map of Niutao



Part 1: Introduction

1.1 Why do we need a fisheries management plan?

Niutao Island community relies heavily on its coastal marine resources as a primary source of protein. Niutao also has natural ponds that have the potential to provide alternative livelihoods for the community.

The Niutao community traditionally managed its coastal resources prior to the introduction and implementation of the Special Protected Area (SPA). The SPA aims to protect these resources and restore biodiversity by safeguarding breeding hotspots and allowing fish populations to recover. This can be beneficial by allowing more fish to repopulate adjacent and nearby areas. However, it has unintentionally limited access for people without canoes and boats, who rely heavily on reef resources.

Outside of the SPA, there has been depletion of coral reef fish species such as Manini (*Acanthurus triostegus*), mato, safole, nanue, ula, kanase and loli. However, even though fishing is more challenging, these species can still be caught using a variety of both modern and traditional fishing techniques. In addition, certain species like uga koa, alili (which the community has agreed to stop fishing to allow the populations to recover) and kalo have not been observed for a long time. These issues collectively highlight the need for improved fisheries management in the Niutao community, so that future generations have the opportunity to witness and sustainably harvest these fisheries resources.

The purpose of this Coastal Fisheries Management Plan (the Plan) is to guide the Niutao community to effectively and sustainably manage their coastal fisheries resources. This includes strategies to restore coastal ecosystems and habitats, and encourage offshore fishing to reduce the pressure on inshore reefs.



This fish pond was built by the Ridge to Reef project. Unfortunately, it was not a success. There were a lot of questions why it failed but after doing some research it was found that the main reason was due to a lack of supply of oxygen because the pond was not deep enough, resulting in the mass fish deaths.

1.2 Scope

This Plan applies to the area of authority of the Niutao Falekaupule under the Falekaupule Act 2008. This is the Locally Managed Marine Area (LMMA), which includes the lagoons, coastal, and all other waters extending out 12 nautical miles from the baseline. This Plan includes all coastal fisheries, and aquaculture and fisheries related activities within the LMMA, including traditional fishing.

This Plan does not include pelagic and oceanic fisheries.

1.3 Goal

An improved, sustained, and well-managed coastal reef fisheries and ecosystems.

1.4 Policy and legislation

This Plan is aligned to the:

- *Te Kete* National Strategy for Sustainable Development (2021-2030)
- *Te Lagai Fakalaga Fenua III, Niutao* (2021-2024)
- Tuvalu Fisheries Department Corporate Plan (2023-2025)
- Falekaupule Act 2008
- Marine Resources Act 2008
- Maritime Zones Act 2012
- Wildlife Conservation Act 1975

The development and implementation of the Plan is guided by the following attributes, as listed in the *Te Lagai Fakalaga Fenua III* (2021-2024)

- Kindness
- Healthy, well-educated and sincere
- Honesty and discipline
- Peaceful
- Respect
- Having foresight in planning ahead and taking good care of the people
- Dedicated and take actions as and where appropriate.
- Playing fair at all times
- Fair distribution of opportunities
- Be courageous
- Not to be biased towards friend and relatives
- People of God and fearful of the Almighty
- Perseverance, humility and never take sides



Part 2: Authorities and Roles

Table 1 states the authorities and roles involved in the development and implementation of this Plan.

Specific responsibilities pertaining to the Plan's activities are outlined in the Implementation, Monitoring and Evaluation Plan (Appendix I).

Table 1: Authorities and Roles

Authority	Role
1. Minister for Natural Resources Development	Approves the Coastal Fisheries Management Plan.
2. Falekaupule	Development of bye-laws, decision-making, and governance under the Falekaupule Act 2008 in relation to this Plan.
3. Kaupule	Co-ordinate implementation of the Plan, key liaison between the community and government departments, and has responsibilities to enforce and ensure compliance with management measures and rules under the Plan.
4. Coastal Fisheries Management Committee	Oversee the implementation and progress of the Plan. Work with the community, Tuvalu Fisheries Department, and other agencies to ensure timely implementation of the Plan, including provision of annual progress reports.
5. Fishermen's Association	Represent fishers' rights and interests, FAD maintenance, and provide fisheries information.
6. Women's Association	Represent women's rights and interests in the fishery especially with gleaning and rod fishing, post-harvest activities, and raising awareness.
7. Youth Association	Represent youth's rights and interests in the fishery, coordinate social participation in community events, and raising awareness.
8. Tuvalu Fisheries Department	Provide technical and financial assistance where appropriate, support and co-ordinate aquaculture and fisheries-related activities, and implement national plans and strategies.
9. Department of Environment	Assist with technical and financial assistance, and implement other relevant national plans and strategies.
10. Non-Government Organisations (NGOs)	Assist with technical and financial assistance.

Part 3: Status of the Fishery

While the people of Niutao rely heavily on offshore fisheries resources, coastal fisheries remain very important as a source of food security and livelihood (approximately 33% of recorded catch).

Among the coastal catch records, *Acanthurus triostegus* (locally known as Manini or Koinava) and *Cirrhitus pinnulatus* (Patuki) are the most frequently landed species (Table 2). Fishers typically use casting nets, rod fishing, reel fishing and float rod fishing to catch coastal fish.

Table 2: Most frequently landed species in Niutao based on creel surveys conducted from 2016 to 2022

	Coastal Species*	Local Name	Family	Number	Total Weight (kg)	Fishing methods used
1	<i>Acanthurus triostegus</i>	Manini, Koinava	Acanthuridae	255	21	Casting net
2	<i>Cirrhitus pinnulatus</i>	Patuki	Cirrhitidae	232	41	Rod fishing
3	<i>Acanthurus leucopareius</i>	Maono	Acanthuridae	128	18	Reel fishing
4	<i>Epinephelus merra</i>	Gatalaliki	Serranidae	117	8	Float Rod fishing
5	<i>Epinephelus macrospilos</i>	Gatala , fapuku	Serranidae	109	5	Float Rod fishing
6	<i>Abudefduf saxatilis</i>	Mutumutu	Pomacentridae	47	7	Casting net
7	<i>Acanthurus lineatus</i>	Ponelolo, Alogo, Pone hamoa	Acanthuridae	41	8	Casting net
8	<i>Kyphosus vaigiensis</i>	Nanue	Kyphosidae	36	37	Casting net
9	<i>Myripristis pralinia?</i>	Malau puku	Holocentridae	32	4	Slow trolling
10	<i>Conger macrocephalus</i>	Tuna	Congridae	21	61	Trolling
11	<i>Cephalopholis sonnerati</i>	Pula	Serranidae	19	7	Lead jigging
12	<i>Aphareus furca</i>	Palusega, Kotua, Taelepe, Takuoga	Lutjanidae	17	3	Lead jigging
13	<i>Trachinotus bailloni</i>	Lai	Carangidae	13	3	Casting net
14	<i>Anyperodon leucogrammicus</i>	Gatala lautalo, Gatala lautala	Serranidae	11	5	Lead jigging
15	<i>Neoniphon argenteus</i>	Talakisi	Holocentridae	10		Reef scoop net

*Other fish species are listed in Appendix II.

Recent Creel Survey Reports indicate overall status of Niutao's coastal fisheries resources has been poor, with an average of 49% of the fishes caught being undersized (2016 – 2019, Figure 2). This is well above the national average of 36%. Ideally, no undersize fish should be landed; hence management actions will be necessary to reduce catch of undersize fish and this would lead to improvements in the resources.

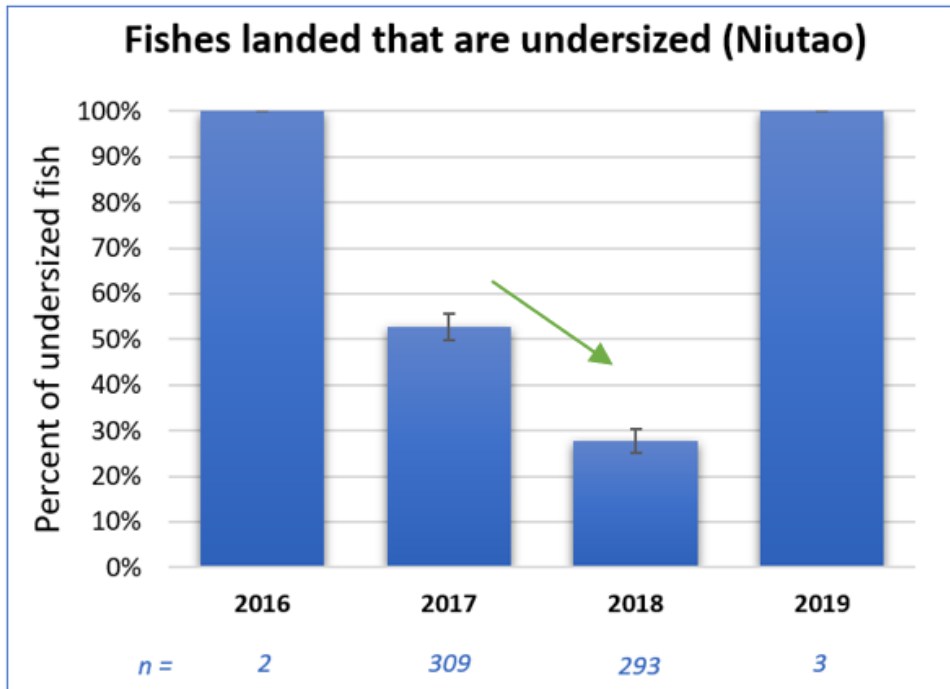


Figure 2. Percentage of fishes being landed undersized by year. The sample size (n) is reported in blue. Green arrow = good trend red arrow = bad trend. There is not enough data in 2016, 2019-2022 to make any accurate assessments for Niutao.



Part 4: Objectives and Strategies: What we want to achieve

For the Niutao coastal fishery to become sustainable and better-managed, our community needs to embark on the following objectives and strategies that will strengthen our ecosystems, cultural fishing practices, and introduce alternative livelihoods such as aquaculture.

Table 3. Management objectives and strategies

OBJECTIVES	STRATEGIES
1. <i>To strengthen the rules and encourage compliance</i>	<p>1.1 <i>Strengthen awareness on rules and regulations.</i></p> <p>1.2 <i>Strengthen resources and capacity for effective implementation of rules and regulations.</i></p>
2. <i>To restore coral ecosystems and habitats</i>	<p>2.1 <i>Improve understanding and information of coral ecosystems and marine habitats.</i></p> <p>2.2 <i>Investigate transplanting activity based on coral survey results.</i></p> <p>2.3 <i>Evaluate and establish suitable size limits for coastal species.</i></p> <p>2.4 <i>Strengthen programmes to reduce marine pollution.</i></p>
3. <i>To improve food security</i>	<p>3.1 <i>Investigate potential aquaculture opportunities for the community.</i></p> <p>3.2 <i>Investigate the feasibility of restocking the natural ponds with selected native species.</i></p> <p>3.3 <i>Maintain and strengthen the FAD program and improve sea-safety measures.</i></p> <p>3.4 <i>Enhance the capacity of the community in post-harvest programmes (i.e. preservative methods, value added, and safety storage)</i></p>
4. <i>To preserve traditional fishing knowledge and encourage participation by all the community</i>	<p>4.1 <i>Develop community skills (including women and youth) on traditional fishing methods.</i></p> <p>4.2 <i>Develop material to document traditional fishing knowledge.</i></p>



Part 5: Management Measures

The following management measures will be implemented to sustainably manage our coastal fisheries resources.

These measures will be given legal effect through the national coastal fisheries regulations and bye laws in accordance with the Marine Resources Act 2008 and Falekaupule Act 2008.

Management Measures	
1	All fishing activity in the Special Protected Area (SPA) is strictly prohibited.
2	Spearfishing (any fishing with a spear, stick, or spear gun) is strictly prohibited in the entire LMMA.
3	All fishing nets with a mesh size of one and a half (1.5) inches and less are not allowed in the entire LMMA.
4	Fishing of alili (turbo snail) is strictly prohibited.

Part 6: Review & Amendment

The Plan will be effective for three years (2024-2027) following date of approval by the Minister for Natural Resources Development.

A mid-term review will be conducted before the end of 2026, during which minor adjustments may be made to ensure the successful implementation of the Plan. An end-of-term review will take place by the end of 2027. The review will evaluate the current Plan and provide up-to-date scientific information for the drafting of the next plan.

The Fisheries Management Committee will produce an annual report on the status of the Plan, working together with the Kaupule Secretary.

Part 7: Funding Strategy for the Plan

The activities outlined in this Plan will be supported by a combination of funding sources to ensure sustainability and self-reliance.

Communities will not solely depend on government funds. Instead, they will also utilise their island budgets and the Vessel Day Scheme community funds allocated to each Kaupule.

Additionally, external financial assistance may be sought through funding proposals and collaboration with ongoing projects supported by external partners. This diversified funding approach will enhance the effectiveness and resilience of the activities stated in this Plan.

Appendix I Implementation, Monitoring and Evaluation

Strategies	Actions	Responsibilities	Resources	Timeline	Indicators	Target	Progress	Reporting	Risks
Objective 1: To strengthen the rules and encourage compliance									
Strategy 1.1: Strengthen awareness on rules and regulations	<ul style="list-style-type: none"> Procure billboards 	Coastal Section, TFD in collaboration with Niutao Kaupule	Niutao Kaupule	2024	Billboards procured and installed	Billboards installed at key access points on Niutao island	Planned	Niutao Kaupule	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Install billboards in identified sites around Niutao community 		Tuvalu Fisheries Department	2025				Billboard materials	
Strategy 1.2: Strengthen resources and capacity for effective implementation of rules and regulation	<ul style="list-style-type: none"> Advertise the compliance officer's new post 	Niutao Kaupule in collaboration with Coastal Section, TFD	Niutao Kaupule	2024	Compliance officer's new post advertised	New compliance officer's post advertised and recruited	Planned	Niutao Kaupule	Lack of funding
	<ul style="list-style-type: none"> Recruit the new compliance officer 		Tuvalu Fisheries Department	2025				New Compliance officer	
								Niutao community	

Objective 2: To restore coral ecosystem and habitat									
Strategy 2.1: Improve understanding and information of coral ecosystems and marine habitats	<ul style="list-style-type: none"> Send formal request to Tuvalu Fisheries Department 	Coastal Section, TFD in collaboration with Niutao community	Niutao Kaupule	2024	Copy of formal request submitted to TFD Coral assessment survey report published and shared Anchorage buoys deployed	Coral assessment survey completed and shared results with community Anchorage buoys procured and deployed	Planned	Niutao Kaupule	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Conduct a survey to investigate areas with low coral cover 		Niutao community	2024				Tuvalu Fisheries Department	
	<ul style="list-style-type: none"> Present the coral survey report to Niutao community 		Coral assessment survey materials	2025					
	<ul style="list-style-type: none"> Deploy anchorage buoys for big vessels 		Anchorage buoys	2025 or 2026					
Strategy 2.2: Investigate transplanting activity based on coral survey results	<ul style="list-style-type: none"> Send formal request to SPC 	Coastal Section, TFD in collaboration with SPC Expert and Youths	Tuvalu Fisheries Department	RTCMFA 2024	Formal request submitted to SPC	Research on stress-tolerant coral species completed Coral planting	Planned	Niutao Kaupule	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Conduct research on stress-tolerant coral species 		SPC Expert	2025	Youth Association			Tuvalu Fisheries Department	

	<ul style="list-style-type: none"> Plant fast growing coral species 		<p>Niutao Kaupule</p> <p>Fuligafou NGO</p> <p>Coral planting materials</p>	2025 or 2026	Fast growing corals planted	activities undertaken		Niutao community	
<p>Strategy 2.3:</p> <p>Evaluate and establish suitable size limits for key coastal species</p>	<ul style="list-style-type: none"> Investigate size limits on key coastal species (1. Manini, 2. Maono, 3. Malau puku (<i>Myripristis berndti</i>)). 	Coastal Section, TFD in collaboration with the community	<p>Tuvalu Fisheries Department</p> <p>Kaupule Niutao</p> <p>Niutao Community</p> <p>Niutao Data Collector</p>	2025-27	Size limits for key coastal species investigated	Minimum size limits of key species investigated	Planned	<p>Niutao Kaupule</p> <p>Tuvalu Fisheries Department</p> <p>Niutao community</p>	<p>Lack of funding</p> <p>Lack of staff and equipment resources</p>
	<ul style="list-style-type: none"> Train youths and local communities on how to undertake size limit study 		2025	Local communities and youths trained					
<p>Strategy 2.4:</p> <p>Strengthen programmes to reduce marine pollution</p>	<ul style="list-style-type: none"> Draft a cleaning campaign timetable 	Kaupule Niutao in collaboration with Niutao CFMC and Coastal Section, TFD	<p>Niutao Youth association</p> <p>Primary students</p> <p>Niutao Community</p>	2025	Cleaning campaign timetable drafted	Cleaning campaign timetable drafted	Planned	<p>Niutao Kaupule</p> <p>Tuvalu Fisheries Department</p>	<p>Lack of funding</p> <p>Lack of human and equipment resources</p>
	<ul style="list-style-type: none"> Conduct weekly beach clean-ups 		2026-27 (weekly/fortnightly)	Cleaning campaign reports published and shared	Cleaned beach				

			CFMC Cleaning Campaign materials					Niutao community	
Objective 3: To improve food security									
Strategy 3.1: Investigate potential aquaculture opportunities for the community	<ul style="list-style-type: none"> Consult with SPC to carry out a feasibility study on farming fish in natural ponds 	Coastal Section, TFD in collaboration with SPC and Kaupule Niutao	Niutao Kaupule Tuvalu Fisheries Department	RTCMFA 2024	Copy of formal request submitted to SPC Feasibility study report published and shared with the community	Formal request submitted to SPC	Planned	Niutao Kaupule Tuvalu Fisheries Department	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Conduct a feasibility study on farming fish in natural ponds 		SPC Aquaculture specialist Niutao CFO	2025		Feasibility study undertaken		Niutao community	
	<ul style="list-style-type: none"> Report back study results to Niutao community 		Study materials	2025 or 2026		Feasibility study results published and shared			
Strategy 3.2: Investigate the feasibility of restocking the natural ponds with selected native species	<ul style="list-style-type: none"> Select key species by Niutao Falekaupule to culture in natural ponds 	Kaupule Niutao in collaboration with Niutao Youth association and Coastal Section, TFD	Niutao Kaupule Niutao Youth Association	2025	Key Species selected by Falekaupule Key species transferred to natural ponds	Key species selected by Niutao Falekaupule Key species transferred	Planned	Niutao Kaupule Tuvalu Fisheries Department	Lack of funding Lack of staff and equipment resources

	<ul style="list-style-type: none"> • Transfer key species into natural ponds 		Tuvalu Fisheries Department	2025	Fish monitoring reports published and shared	to natural ponds		Niutao community	
	<ul style="list-style-type: none"> • Monitor the fish regularly by recruiting a data collector 		Data collector	2026-27					
Strategy 3.3: Maintain and strengthen the FAD program and improve sea safety measures	<ul style="list-style-type: none"> • Deploy nearshore FADs at selected sites 	Operation Development Section, TFD in collaboration with Niutao Fishermen Association	Tuvalu Fisheries Department	Metronome 2024	FADs deployed	FADs deployed	Planned	Niutao Kaupule	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> • Install a beacon to improve navigation and safety 		Tuvalu Fisheries Department	2025	Beacon installed	Beacon installed		Tuvalu Fisheries Department	
	<ul style="list-style-type: none"> • Procure and restock first aid kits for fishers 		Niutao Fishermen association	2025	First Aid Kits procured	First Aid Kits for all fishers procured and distributed		Niutao community	
	<ul style="list-style-type: none"> • Procure more safety grab bags for fishers 		Niutao Kaupule	2025	Safety grab bags procured	Safety grab bags procured, registered and distributed			
Strategy 3.4: Enhance the capacity of the community in post-harvest programmes	<ul style="list-style-type: none"> • Upskill staff in the Community fisheries centre on fish preservation 	Operation Development Section, TFD in collaboration with Niutao Kaupule	Tuvalu Fisheries Department CFC staffs	Metronome trip 2024 or 2025	Training workshop with CFC staff conducted Post-harvest Awareness	Training workshop with CFC staffs and post-harvest awareness	Planned	Niutao Kaupule Tuvalu Fisheries Department	Lack of funding Lack of staff and equipment resources

	and seafood safety		Niutao Kaupule Secretary		program conducted	program conducted		Niutao community	
	<ul style="list-style-type: none"> Conduct awareness program to build capacity on post-harvest techniques 			Metronome 2024					
Objective 4: To preserve traditional fishing knowledge and encourage participation by all the community									
Strategy 4.1: Develop community skills (including women and youth) on traditional fishing methods	<ul style="list-style-type: none"> Develop a community awareness program on traditional fishing methods 	Niutao CFMC in collaboration with Niutao Kaupule and Local Experts	Niutao CFMC	Metronome trip 2024 or 2025	Community awareness program developed	Community awareness program and training workshop developed and conducted	Planned	Niutao Kaupule, Community, Tuvalu Fisheries Department	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Conduct training workshops with the community 		Niutao Kaupule Local experts Niutao community TFD						
Strategy 4.2: Develop material to document traditional fishing knowledge	<ul style="list-style-type: none"> Conduct a household survey on traditional fishing knowledge 	Coastal Section, TFD in collaboration with Niutao Kaupule	Niutao Kaupule	2025	Household survey conducted	Traditional fishing knowledge recorded, stored in database and documented by video	Planned	Niutao Kaupule, Community, Tuvalu Fisheries Department	Lack of funding Lack of staff and equipment resources
	<ul style="list-style-type: none"> Produce a video documentary on 		Coastal Section, TFD Niutao community	2025	Video documentary produced Database on traditional fishing knowledge developed				

traditional fishing knowledge and methods				
• Record and develop a database on traditional fishing knowledge	2026			

Appendix II Niutao landings reported from creel surveys (2016-2022)

	Species	Local Name	Family	Weight (kg)	Number landed
1	<i>Abudefduf saxatilis</i>	Mutumutu	Pomacentridae	7.0	47
2	<i>Abudefduf sexfasciatus?</i>	Matagi, Katoatoa	Pomacentridae	1.9	2
3	<i>Acanthocybium solandri</i>	Paala	Scombridae	343.8	44
4	<i>Acanthurus leucopareius</i>	Maono	Acanthuridae	18.4	128
5	<i>Acanthurus lineatus</i>	Ponelolo, Alogo, Pone hamoa	Acanthuridae	7.6	41
6	<i>Acanthurus nigrofuscus</i>	Pone	Acanthuridae	0.1	1
7	<i>Acanthurus triostegus</i>	Manini, Koinava	Acanthuridae	20.8	255
8	<i>Anyperodon leucogrammicus</i>	Gatala lautalo, Gatala lautala	Serranidae	4.7	11
9	<i>Aphareus furca</i>	Palusega, Kotua, Taelepe, Takuoga	Lutjanidae	3.4	17
10	<i>Aprion virescens</i>	Utu	Lutjanidae	4.2	1
11	Balistidae spp	Sumu magasega, Suma, Sumu lautalo, Sumu niu	Balistidae	3.0	2
12	<i>Carangoides fulvoguttatus</i>	Lupolupo	Carangidae	0.2	1
13	<i>Caranx ignobilis</i>	Tino ulua (lge), Lupo (small), Aseu (med); Mea tal	Carangidae	0.2	9
14	<i>Caranx lugubris</i>	Taufauli, Tino tafauli (large), Aheu tafauli, Uluat	Carangidae	7.0	15
15	<i>Caranx melampygus</i>	Aseu, Ulua, Fuaika	Carangidae	1.8	7
16	<i>Caranx sexfasciatus</i>	Teu	Carangidae	3.7	3
17	<i>Carcharinus limbatus</i>	Mago	Carcharhinidae	65.0	1
18	<i>Cephalopholis leopardus</i>	Mataele (Ff, Nm)	Serranidae	0.3	3
19	<i>Cephalopholis miniata</i>	Pula (Ff, Nm), pula kula (Ff)	Serranidae	0.7	1
20	<i>Cephalopholis sonnerati</i>	Pula (Ff, Nm)	Serranidae	7.1	19
21	<i>Chaetodon lunula</i>	Moepepe	Chaetodontidae	0.3	2
22	<i>Chanos chanos</i>	Paneava, Awa	Chanidae	9.2	1
23	<i>Chlorurus (Scarus) microrhino</i>	Laea	Scaridae	0.4	1
24	<i>Chlorurus japanensis</i>	Laea (Ff), kamutu maga (Nm)	Scaridae	2.0	1
25	<i>Cirrhitus pinnulatus</i>	Patuki	Cirrhitidae	41.1	232

26	<i>Conger macrocephalus</i>	Tuna (Ff)	Congridae	60.6	21
27	<i>Ctenochaetus binotatus</i>	Pone uli	Acanthuridae	0.5	3
28	<i>Elagatis bipinnulata</i>	Kamai, Kamaa, Kami	Carangidae	25.7	9
29	<i>Epinephelus macrospilus</i>	Gatala (Ff), fÄpuku (Nm)	Serranidae	5.0	109
30	<i>Epinephelus malabaricus</i>	Gatala (Ff, Nm)	Serranidae	0.3	4
31	<i>Epinephelus merra</i>	Gatalaliki	Serranidae	8.1	117
32	<i>Epinephelus retouti (truncat</i>	palu patuki	Serranidae	116.0	4
33	<i>Exocoetus volitans</i>	Isave, Sasave	Exocoetidae	102.6	188
34	<i>Forcipiger flavissimus</i>	Moipepe, Maninipapa	Chaetodontidae	0.5	4
35	<i>Gnathanodon speciosus</i>	Filu, Fua'ala'ala, Fuaika, Kautea, Pakeva	Carangidae	1.8	10
36	<i>Grammatorcynus bilineatus</i>	Tavatava	Scombridae	227.6	55
37	<i>Gymnosarda unicolor</i>	Valu	Scombridae	7.3	1
38	<i>Halichoeres melanurus</i>	Ulo'ulo (Ff, Nm)	Labridae	2.4	6
39	<i>Hemiramphus far</i>		Hemiramphidae	0.2	4
40	Hemiramphus sp	Ise	Hemiramphidae	0.3	15
41	<i>Katsuwonus pelamis</i>	Atu	Scombridae	3699.9	1153
42	<i>Kyphosus vaigiensis</i>	Nanue (Ff, Nm)	Kyphosidae	36.8	36
43	LABRIDAE spp	Uloulo, Kimoa, Kiola	Labridae	1.0	6
44	<i>Liza vaigiensis</i>	Kafakafa	Mugilidae	0.3	1
45	LUTJANIDAE spp	Takuoga	Lutjanidae	2.8	13
46	<i>Lutjanus bohar</i>	Fakamea, Fagamea	Lutjanidae	0.4	1
47	<i>Lutjanus kasmira</i>	Savane	Lutjanidae	0.2	1
48	<i>Mulloidichthys vanicolensis</i>	Kalo	Mullidae	0.3	9
49	<i>Myripristis amaena</i>	Malau	Holocentridae	1.1	3
50	<i>Myripristis berndti</i>	Malau	Holocentridae	0.1	2
51	<i>Myripristis pralinia?</i>	Malau puku	Holocentridae	4.1	32
52	<i>Naso lituratus</i>	Maninilakau	Acanthuridae	0.4	1
53	<i>Neomyxus chaptalii</i>	Fua gutuloa (Ff, Nm)	Mugilidae	0.3	6
54	<i>Neoniphon argenteus</i>	Talakisi	Holocentridae	0.3	10
55	<i>Oxycheilinus digrammus</i>	Gole (Ff)	Labridae	1.2	5

56	<i>Panulirus longipes bispinosus</i>	Ula	Palinuridae	0.4	1
57	<i>Parupeneus barberinus</i>	Malili, Kaivete	Mullidae	0.2	2
58	<i>Pempheris oualensis</i>	Maanifi, Cooper sweeper	Pempheridae	0.3	2
59	<i>Priacanthus hamrur</i>	Matapa	Priacanthidae	0.4	3
60	<i>Pristipomoides flavipinnis</i>	Palu sega	Lutjanidae	0.3	2
61	<i>Pseudobalistes flavimarginatus</i>	Umu	Balistidae	9.7	4
62	<i>Rastrelliger kanagurta</i>	Salala	Scombridae	2.0	3
63	<i>Rhinecanthus aculeatus</i>	Sumu	Balistidae	0.2	2
64	<i>Sargocentron spiniferum</i>	Tamalau	Holocentridae	0.0	1
65	<i>Sargocentron tiera</i>	Malau gutu loa, Malua mata loa	Holocentridae	0.5	4
66	SERRANIDAE spp	Gatala	Serranidae	2.1	6
67	<i>Sphyraena barracuda</i>	Ono, Pauea	Sphyraenidae	162.4	17
68	<i>Sphyraena jello?</i>	Ono, Oso, Nn	Sphyraenidae	13.3	7
69	<i>Tetrapturus audax</i>	SakulÄ, HakulÄ	Istiophoridae	31.1	1
70	<i>Thunnus albacares</i>	Kasi, Takuo, Takua, Tavatava	Scombridae	2091.0	470
71	<i>Thunnus obesus</i>	Kasi matalasi	Scombridae	1492.9	410
72	<i>Trachinotus bailloni</i>	Lai	Carangidae	2.7	13
73	<i>Triaenodon obesus</i>	Mago	Carcharhinidae	13.5	1
74	<i>Tylosurus crocodilus</i>	Maliolio	Belonidae	10.1	24
75	<i>Uraspis helvola</i>	Lupolupo	Carangidae	3.1	4
76	<i>Valenciennesa muralis</i>	Manoko	Gobiidae	0.5	1
	(blank)			5.7	
	Grand Total			8704.0	3652