

METRONOME 26 – NORTHERN ISLANDS – NIUTAO, NANUMAGA AND NANUMEA

[**Photo 1**- Mata Hauma at dusk, Nanumea Island; **Photo 2**- Fresh Carangoides caught in Nanumea; **Photo 3**- Salala Spawning Aggregation targeted by fishers at Vaihigano shore in Nanumaga Island; **Photo 4**- Lotokufaki P Kaitu refreshed with her childhood fishing skills at Vaihigano beach; **Photo 5** – A treasured species by women of Nanumea Island called “Ponuponu” for its unique fragrance & **Photo 6**- Matapua Falani doing a household interview with Liteli Filipo of Nanumaga Island]



Tuvalu Fisheries Department Team – Northern Islands

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1.0 Summary

The metronome trip to the northern islands underwent a total of forty-five days which was averaged as a week-long on each island but unfortunately having extra weeks on Niutao and Nanumea due to vessels (Manau I & Manau II) breakdown. TFD officers from the Coastal and Operation & Development sections teamed up to execute fisheries mandates as stipulated in our annual work plans. The conducted activities comprised of community and Kaupule consultations; community and school awareness programs; FAD activities; post-harvest training; CFC staff upskilling; Ciguatera fish poisoning cases update; data collectors and community fisheries officer's refresher training; TFD MOU review on data collection; boat and canoe survey and inspection and refresher training on safety grab bags.

In fact, information on Fisheries management plans have been validated across the three northern communities with the assistance of targeted groups (women, youth, elders (Falekaupule), fishers and men). Communities and schools were able to gain knowledge and improve awareness on thematic areas; size limit management measure, differences between LMMA, MPA and SPA and ciguatera fish poisoning. A total of 62 boats and 76 canoes that are active in the northern islands from which the most common types were aluminium boats and wooden canoes. Ciguatera fish poisoning have been observed to be controlled in Nanumaga and Niutao. However, Nanumea was reported with one case sustained fish poisoning from a Hump nose bigeye bream – (*Monotaxis grandoculis*). The TFD MOU on data collection was reviewed by both parties, Kaupule members and Coastal Section where feedback and suggestions accounted for the improvement of data collection. Data collectors and Community fisheries officers were refreshed with skills and tips related to the entire creel survey program.

However, CFC staffs were trained by fisheries experts on a new post-harvest technique for tuna jerky. A new FAD system was installed in Nanumaga with its plotted coordinates as **(06°17.586''S – 176°18.112''E)**. All active grab bags were inspected by TFD officers and fishers being refreshed on the usage of equipment. Memorandum of Agreement on FADs was also reviewed by TFD officers and fishermen associations to suit their needs. CFC staff in all islands have been upskilled by TFD officers on fisheries administrative work, financial management and other related activities. Nanumea was not able to partake in the post-harvest training due to the unavailability of ingredients.

The entire trip was called a success as all fisheries mandates accomplished as well as on-demand requests from Kaupule and communities of the northern islands, despite a couple of unsuccessful activities which will be fulfilled soon accordingly.

2.0 Introduction

Metronome 26 trip visited the northern group islands of Niutao, Nanumaga and Nanumea with the purpose of fulfilling TFD mandates and 2023 activities for Outer Islands. A team of eight fisheries officers departed Funafuti on the 12th August 2023 and returned on the 27th September 2023. Activities on each island were carried out according to the metronome *Tentative Program* (TP) taking into consideration slight variations to the program made by Kaupule members during courtesy meetings to merge with community commitments and developments on each island. Main funding supporters are Tuvalu Fisheries Support Program (TFSP 2) and Tuvalu Government who tirelessly aid to ensure the smooth undertaking and fulfilment of fisheries tasks reach out to the northern islands of Tuvalu.

Main objectives focus around areas such as to;

1. Re-consult with communities on validating Fisheries Management Plans
2. Conduct awareness on selected topics (LMMA/SPA/MPA; Size Limit as a Management Measure Tool and Ciguatera Fish Poisoning) with communities
3. Refresh island data collectors and community fisheries officers with fisheries work standards and creel data collection program issues
4. Review the TFD memorandum of understanding (MOU) with Kaupule for improvement and strengthening of the data collection program
5. Survey total boats and canoes to date on each island
6. Follow-up with island nurses regarding CFP cases on each island
7. Maintenance of FAD systems, deploy new FADs and review the FAD MOU with fishermen associations
8. Up-skill capacities of CFC officers on administration and management of outer islands fisheries sectors
9. Train communities and CFC workers on new post-harvesting techniques
10. Check all safety grab bags and refresh grab bag owners with the use of safety equipment inside the safety grab bags
11. Consult with Kaupule members on current fisheries issues and urgent fisheries needs or requests to be addressed

3.0 Methodology

Pre-departure logistics were arranged with the Department of Local Government including entry permission approval, organising consultations/meetings/awareness/training needs with Kaupule Secretaries and finding accommodation for the fisheries team via exchange of emails.

Two Consultations with Kaupule on each island occurred upon post arrival and prior departure to discuss on the metronome Tentative Program of activities to be carried out and finding results with fisheries current issues respectively.

Community consultation requires 15 participants from each target groups (fishermen, women, youth, elders/men and Falekaupule/Kaupule) to participate in the validation of Coastal Fisheries Management Plans (CFMP) information been collected from last year and have been consolidated as FMP drafts.

Community awareness requires 15 participants from each target groups (fishermen, women, youth, elder/men and Falekaupule/Kaupule). Presentations are to be delivered by TFD staff on the themes (MPA/LMMA/SPA, Size limit management measure and CFP).

TFD staff conducted a refresher training for the data collector and community fisheries officer on key issues pertained to the creel data collection program. Important documents such as IDC contract, Creel Datasheet and IDC Fortnightly report will be briefed to avoid ambiguity.

TFD staff meet with Kaupule members to screen the TFD MOU on the creel data collection program and make suggestions for any amendments needed using a projector and laptop.

All boats and canoes that are in good condition and use will be surveyed by TFD staff by measuring and recording its length in metres using a measuring tape, survey sheet and pen as well as checking for its seaworthiness.

CFP cases are obliged to be followed up by TFD staff from the island nurse and information will be transferred to CFP forms if any cases found out.

Operation and Development officers must provide maintenance services to FAD systems if required. FAD MOU was reviewed by fishermen associations and TFD officers- using a projector and laptop followed by checking safety grab bags individually and re-train fishers on the use of every safety equipment while out at sea. Deployment of FAD system was ease by the use of Manui I vessel assisted by fisheries officers, vessel crews and fishers.

Training was conducted by O&D officers to up-skill CFC staff on administrative tasks and overall management of the CFC. New post harvesting techniques and recipes were also delivered to communities as hands-on training by a fisheries expert.

4.0 Results & Storage

4.1 Community Consultations

Such an activity was intentionally planned to seek clarifications from communities on the information been collected from last year during metronome trips to all outer islands of Tuvalu. The next step would be to finalise Coastal Fisheries Management Plan drafts before reaching the endorsement stage in December 2023.

Table.1 Summary of key validated information from the three northern communities

Island Name	Questions to be validated by Communities	Clarifications from communities
Niutao	<ol style="list-style-type: none"> 1. Ask the community if there were any consultations before the SPA was established? 2. Were all views considered? 3. What are the rules of the SPA? (We have in the plan that ALL fishing activities are prohibited in the SPA). Is this appropriate? Is access to the resources fair for all? 4. Discuss with the community alternative measures to ensure that people are able to get fish for their families, at the same time still protect the fishery resources. E.g., opening the SPA from time to time, having catch limits, closing other areas (in addition to the SPA) that may be spawning grounds for key species 5. Ask the community if this list of species is correct. Are they actually depleted (outside of the SPA)? (manini, mato, safole, nanue, ula, kanase and loli + uga koa, alili and kalo) 6. Find out if there have been any stock assessments for this island. Try to get reports on them! 7. For the final list of species, do these need to be protected? We'd need to have a strategy and/or management measure to address their conservation. 8. Ask the community what the top 2-3 species that they would like size limits on. 	<ol style="list-style-type: none"> 1. To be confirmed later by the community and to be reported by Kaupule Secretary via email before 22nd November 2023 2. Same as above 3. All the rules portrayed in the Niutao LMMA Map and embedded under Management Measures & Rules of Niutao CFMP were correct 4. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 5. Indeed, the list of species was correct. No scientific findings have been known but such were visual witness from fishers and those who usually targeted these kind of species 6. Rapid Assessment was carried out by R2R Project within the SPA and none was ever done outside of the SPA. 7. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 8. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 9. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 10. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023

	<ol style="list-style-type: none"> 9. Ask the community for other types of activities that will help to maintain a clean environment 10. Ask the community what species they would like to culture? 	
Nanumaga	<ol style="list-style-type: none"> 1. Confirm the existing management measures and rules with the community 2. MM & Rules #2 – Be clear on what area(name?) is prohibited? Or is it a complete ban on this method(spearfishing)? Also define spearfishing – is it spearfishing with masks, snorkels, etc.? 3. MM & Rules #3 – Confirm with the community on the mesh size of fishing nets practice? 4. MM & Rules #4- Confirm with the community on turtle harvesting prohibition? 5. Ask the community about Strategy 1.5 - do they need to add as a new management measure? 	<ol style="list-style-type: none"> 1. All rules and management measures included in the CFMP of Nanumaga were correct. 2. Spearfishing referred to any kind of spearfishing such as using a speargun, local hand spear and using an iron hand spear is prohibited for use. 3. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 4. Turtle hunting and consumption of turtle eggs is prohibited. 5. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023
Nanumea	<ol style="list-style-type: none"> 1. Find out the key coastal species for size limit study from the community? 2. Ask the community if there are any rules for gastropods and bivalves/ invertebrates? 3. Confirm the existing management measures and rules with the community? 4. Confirm with the community what the customary verbal laws are? How these be communicated to the community? Through church meetings/ Kaupule meetings? 	<ol style="list-style-type: none"> 1. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 2. No rules enforced for gastropods and bivalves. Ponuponu is a kind of sea worm commonly used by Nanumea women which was under the management of the SPA such that the said species cannot be accessed within the SPA. 3. To be confirmed by community and to be reported by Kaupule Secretary before 22nd November 2023 4. All customary laws are stipulated under the Nanumea Conservation Area By-law hence still need confirmation from the community to be sent in by Kaupule secretary before the 22nd of November 2023

Community Fisheries Management Plans – Key Issues Discussed and Recommendations

Nanumea

- Conduct a study on reef fish both in the lagoon and reef due to depletion in visual observation for populations of kalea, panaea and fasua and to find out the causes of depletion – **to be added as an activity under the Nanumea CFMP**
- Women have banned from digging ponuponu within the SPA – requested Kaupule to exempt women on the said issue as it will have an impact on the life cycle of ponuponu (there will be disadvantages followed if ponuponu were not digged) –Kaupule suggested that women are required to write a formal request to the Kaiga Aliko for permission regarding digging of ponuponu
- FADs span is short – need to plot FADs coordinates and share with all Tuvalu vessels for awareness and to avoid violation of FADs

- Demarcate LMMA (12 nautical miles territorial sea) boundary from offshore to nearshore as well as SPA boundary for improvement in terms of MSCE (monitoring, surveillance, compliance & enforcement) and overall management
- Request for a drone to assist the compliance and conservation area officers in the monitoring of the LMMA and SPA – **to be added as an activity under the Nanumea CFMP**
- Collaborate and follow-up with Fisheries Legal Officer on the Nanumea Conservation Area By-law specifically with the types of fishing that are not allowed within the protected areas and their penalties
- More awareness programs are needed for the community to build their capacities on the differences of LMMA/MPA/SPA and their functionalities

Nanumaga

- Akau Talie to be shown on the LMMA Map of Nanumaga and to be **incorporated into the Nanumaga CFMP**
- Community showed Interest to have awareness on Turtle biology and migration movements
- Require capacity awareness on the roles of sharks amongst other fishes, impact of killing sharks and ways to minimize the impact of sharks on fishers during fishing activities
- Investigate what species that could be farmed in the Hapai and other in-land lagoons such as Hatelua and Avatahi
- Spawning seasonality of 2-3 key reef fish to be reflected in the Nanumaga Coastal Fisheries Management Plan

Niutao

- Need more awareness in building the capacities of communities on the differences of LMMA/MPA/SPA and their functionalities
- Require to clearly specify the depth and wider boundary demarcation of LMMA/SPA for Niutao – to be agreed by community with the technical assistance from TFD
- Need a Rapid Assessment of coastal marine resources for the entire island; RA have been done by R2R for Niutao SPA - to **be added as an activity under the Niutao CFMP**
- **Add** Anchorage/mooring buoys for vessels **into the Niutao CFMP** as it was raised and discussed within the Falekaupule assembly
- Concern if there are any rules or regulation on the usage of grab bags if happens to go out fishing – significant to have a national regulation on the use of grab bags by fishers and ensure compliance in taking their grab bags with them on every fishing trips
- TFD to maintain its assistance to frequently check grab bags and provide replacements of expired equipment
- TFD to continue with its awareness programs on themes that are of assistance to the improvement of the holistic management of coastal fisheries
- Follow-up Request from Taivalu Fishermen Association on boats and canoes maintenance and repair that is still yet to be achieved

4.2 Community Awareness

The coastal team section delivered three presentations for the awareness program with the community as listed below, along with their presenters.

- i) ***Ciguatera Fish Poisoning (CFP)*** - Filipo Makolo
- ii) ***LMMA, SPA and MPA*** – Lavata Nivaga & Lotokufaki P Kaitu
- iii) ***Size Limit*** – Maani Petaia

Community awareness: Key Issues Discussed

Niutao:

- Difference btw LMMA and SPA and MPA, before there is only 2 MPA and LMMA. Now it seems a bit clear that there is a SPA to better define the difference between conserved areas.
- Within the 12 nautical miles, there is an idea that Niutao could join venture with commercial fishing vessels, this could be beneficial to the island in terms of economic growth and food security to Niutao.
- Raised the idea for Niutao SPA boundaries – considering the length (meters) further seas but not only look at the deep (buffer zones) because where Niutao hold the reef laws, most of the buffer zones will be exposed to other vessels (Talamoana, Manau, Nivaga, etc...)
- Mentioned that maybe the TFD team should be distributed to each island for purposes of encouraging and enhance knowledge to the island. Anchoring of vessels should also be considered as an issue to insert into plan to stop vessels anchoring on Corals.
- Some people seem less aware of the TFD progress work on outboard motor repair program and the canoe constructions in Funafuti program, they want to know if there is a chance they will get to learn to fix their motor engines and get to learn to build canoe like the TFD project in Funafuti.

Nanumaga:

- CFP: Japan nuclear dump contributes to CFP? there has been no affect yet of those waste to the island, but If there are issues to that, the TFD will look in to the impacts of such issues.
- LMMA SPA & MPA: Mangroves in the Vaiatoa should also be listed as SPA to protect the home of the fries.
- Size limit: For food security problems – maybe Nanumaga should do what the Kiribati's practiced in the past, they usually dug a small manageable pond where they threw in their preferred species and fed them until harvesting period. They did this repeatedly without failure.

4.3 School Awareness

The same themes that were presented to the communities were delivered to schools as well as the presenters. Questions were given to the students by presenters at the end of each presentation and small gifts of pens, pencils, erasers, sharpeners and note books were prepared by TFD for students who answered questions correctly.

Niutao:

- Form 1 & 2 attended with 3 Teachers
- How to ID a poisonous fish from a fresh one? None, only the aftermath after consumption.
- Advise on size limit: Teacher – Limit mesh size of fishing net will ensure control of average sizes taken.
- Show an interest on the various types of conservation areas (MPA, LMMA and SPA)

Nanumaga:

- Class 6, form 1 and 2 and head teacher
- Fakamea in Nanumaga aren't toxic, is it because of the absence of toxic substance on Nanumaga or the toxic is controlled?
- Lupo caught during rod fishing, are they the juvenile of the trevally family? Yes

- Show an interest on the change in gender of fishes, news to Nanumaga school.

Nanumea:

- Form 1 and 2 and Deputy Head Teacher
- Grateful for new things shared to students such as the importance of size limit for managing marine resources

A)



B)



Photos: A was taken during the Nanumea School Awareness Program while B showing an image of Nanumaga Head Teacher (Malia Ipitoa) with Form 1 & 2 students participated during their school awareness program.

4.4 Data Collector (DC) & Community Fisheries Officer (CFO) Refresher Training

The Refresher Training is one of an ongoing activity in Metronome trips. This activity is to discuss the status of the progress work from each island Data collector's movement throughout the past years. This years' plan is to refresh the contract with the data collectors to ensure their competence and understanding on the present status they are entitled to adhere. The team also gave a brief summary of the progress work they were engaged with and to point out the slips with reference to the contract that they should look into in order to improve, there is also a chance given to the DC to raise important issues that the TFD, Kaupule and the DC can make amends with to improve the quality of data collected this year onwards.

The Coastal team met with the Niutao Data Collector, Nanumaga Data Collector and CFO as well as the Nanumea Data Collector and CFO. A brief summary of the agenda was followed by TFD staff and associated fisheries officers in the outer islands then continued with reviewing of the DC's contract. The following were the results of the activity.

Nanumaga:

- Data sheets – needed more for transferring to data from book to survey sheets
- Printing at the Kaupule, no paper, no ink. Every future trip to Nanumaga to send more data sheets for spare.
- Equipment are working fine

Issues:

- Needed a hand to help on; Measure and the other write (avoid wet, smutch in papers)
- A lot of boat depends on the CFC open season and time closed (@CFC, head already cut off) so late creel when there is a lot of boats went out fishing.

- One time check to the reef fisher (rod fisher) and ask them to let him know to come and creel when they land their fish at home, this is not working (maybe fishers are tired)
- Training on the use of gmail on the fone. Tablet is working fine but he is using his own device for MSGer
- New transport- and some fish ID books
- He needs to create a skype account since TFD have dismissed facebook at the main office.
- 43% of his fortnightly reports still needed to be submitted and with available data to be collected on this trip.

Niutao:

- All equipment is working well and is kept in good condition.
- According to fortnightly submission of reports, 35% of his fortnightly reports still needed to be submitted and with available data to be collected on this trip.

Nanumea:

- All equipment checked ok, except the Ketch-X ruler was found in somebody else resident, he reported that he is not using that ruler, he is still using the
- According to fortnightly submission of reports, 30% of his fortnightly reports still needed to be submitted and with available data to be collected on this trip.

- ✚ There is a similar complain from the Northern Island's DC with their access to the Kaupule internet that may limit their internet access to do their work. Internet can only be accessed at their own expenses.

4.5 TFD Data Collection MOU Review with Kaupule members

The purpose of the DC MOU review is to assess the fair distribution of understanding and support between the Kaupule and the TFD with the aim of the data collection program. The MOU is between the 'Tuvalu Fisheries Department', the 'Island Kaupule' and the 'Data collectors'. The impression is to raise ideas to improve support from different bodies with reference to known issues experienced from 2015 when the program started to date.

Changes made by Kaupule during the MOU review with the Northern Islands

Niutao:

1. TFD to provide vehicle fuel and internet fund, and a relieving officer with an allocated relieving budget set aside to cover the data collection program before DC take his/her leave of absence.
2. Considering a proper handing-over period between the DC and the expected relieving officer 2 weeks prior to DC leave of absence.
3. Raised the concern to include the Kaupule Fisheries Minister in emails upon reporting such as; DC biannual progress performance and loss or damaged items and other relevant issues between the TFD and the DC. In the Biannual progress reports, the Kaupule stresses that there should be a section for them to report from their point of view the DC progress where suitable as they are the eyes and ears of the island e.g. DC was seen drunk most of his working days, etc.
4. Kaupule will provide the DC workspace while TFD provide all his/her work materials.
5. NTO Kaupule raised that the inclusion of the Kaupule concern rather than the Kaupule Secretary is more vital in terms of work-related business.

6. In the MOU, there should be a space provided for the Kaupule to sign as well.

Nanumaga:

1. In terms of damaged equipment report from the DC, the Kaupule through the secretary should also do the final survey and a brief report to second the issue raised to avoid any flaw or fake reporting, e.g. damaged done to the motorbike.
2. The DC Biannual report must present to the Kaupule in a presentation during Kaupule courtesy visit.
3. Kaupule should have a say in the use of the DC motorbike if the DC is seen using alcohol/drank, there should also be a period of time given to the DC before coming to the Kaupule for his/her vehicle full services.
4. Selection of a new Data collector; the applicants should first screen by the Kaupule before the TFD channel of selection initiated.
5. In the MOU, there should be a space provided for dates whereby each party signed the agreement.

Nanumea:

1. All DC fortnightly reports should be well stored inside a cabinet or locker or archive for future references.

4.6 Ciguatera Fish Poisoning (CFP)

This activity was conducted by the coastal team across the three northern islands and was able to find out that there was only one case in Nanumea. The team were able to conduct an interview with the affected person and collected all the necessary information from the person who was affected.

Table.2 The table below shows the result from the survey.

Name	Elisala Tafega
Sex	Male
Age	28
Address	Hawaii Bong
Island	Nanumea
Species Name	Hump nose Big eye Bream /Monotaxis Grandoculis
Location of captivity	Lagoon (Tefaga)

4.7 Boat and Canoe Survey

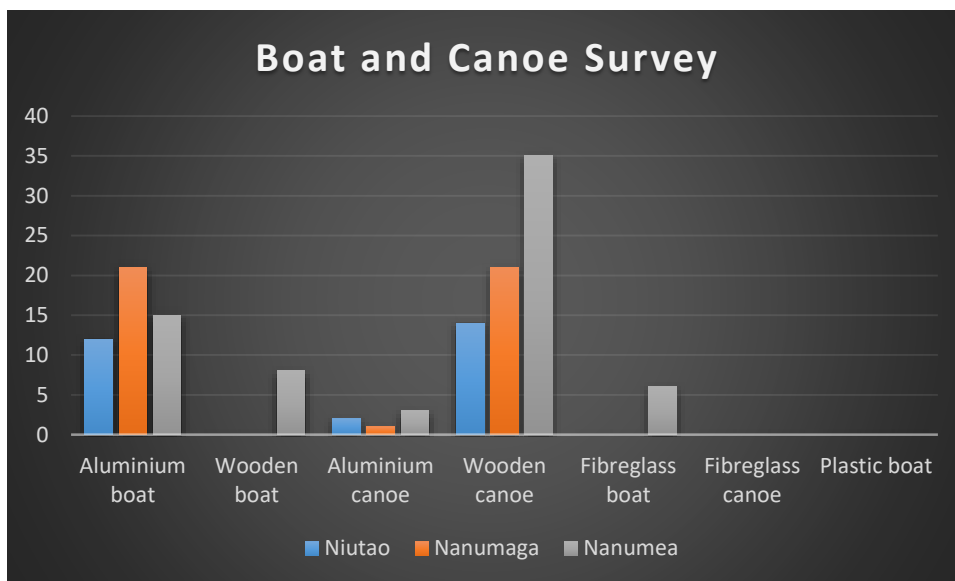
Independent Boat and Canoe survey were conducted during the Metronome 26 to the Northern islands.

The total number of boats and canoes has surveyed during metronome trip were only those boats and canoes which are still sea worthy for fishing, transport and recreational or could be repaired and excluded those boats and canoes are in a condition that no longer could be repair or maintenance.

Table.3 The table below show the amount of boats and canoes for each of the Northern islands.

Island	Aluminium boat	Wooden boat	Aluminium canoe	Wooden canoe	Fibreglass boat	Fibreglass canoe	Plastic boat
Niutao	12	0	2	14	0	0	0
Nanumaga	21	0	1	21	0	0	0
Nanumea	15	8	3	35	6	0	0

Graph.1 The Graph below shows the amount of boats and canoes for all the Northern islands.



4.8 Locally Managed Marine Areas Activities

Information on demarcation of Locally managed marine areas (LMMA) maps for the northern islands were validated verbally via community consultation. Slight changes were based on the customary laws or rules as shown in **Figure.1**, **Figure.2** and **Figure.3**. Other useful information related to the established years of island SPAs, Bye-laws, Rules and Management Measures for the three islands would be emailed in by Kaupule Secretaries and to be followed up by Outer Island management team by November 2023 to be finalised and printed as informative billboards. Nonetheless, the LMMA maps would be printed out as important management information guide to improve awareness capacities, compliance and enforcement of rules by communities and the public at large

on LMMA boundaries and fisheries rules and management that are existed on all islands.

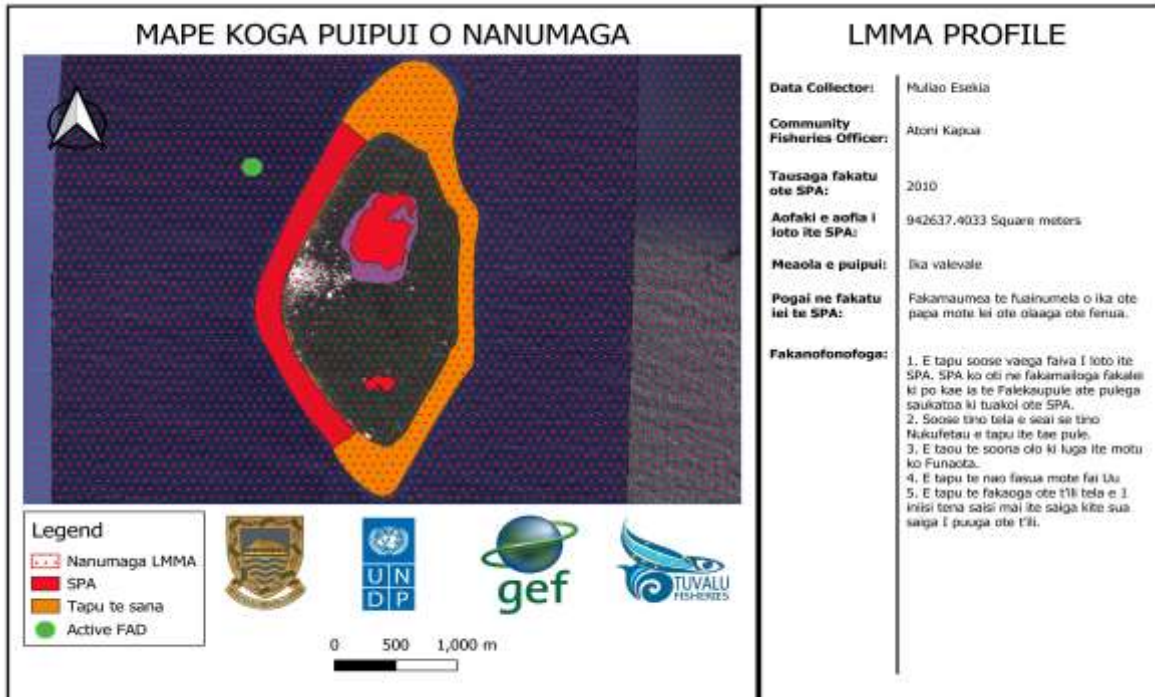


Figure. 1 Showing the entire LMMA boundaries and fisheries profile of Nanumaga Island

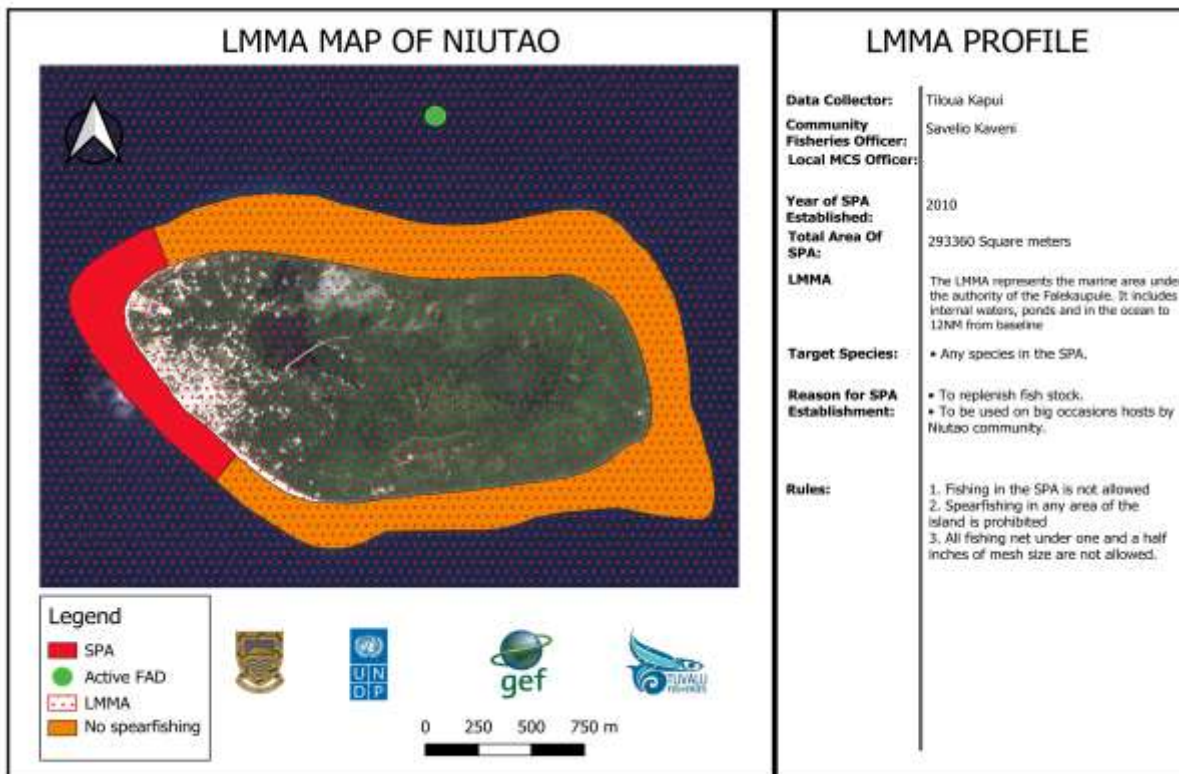


Figure. 2 Showing the entire LMMA boundaries and fisheries profile of Niutao Island

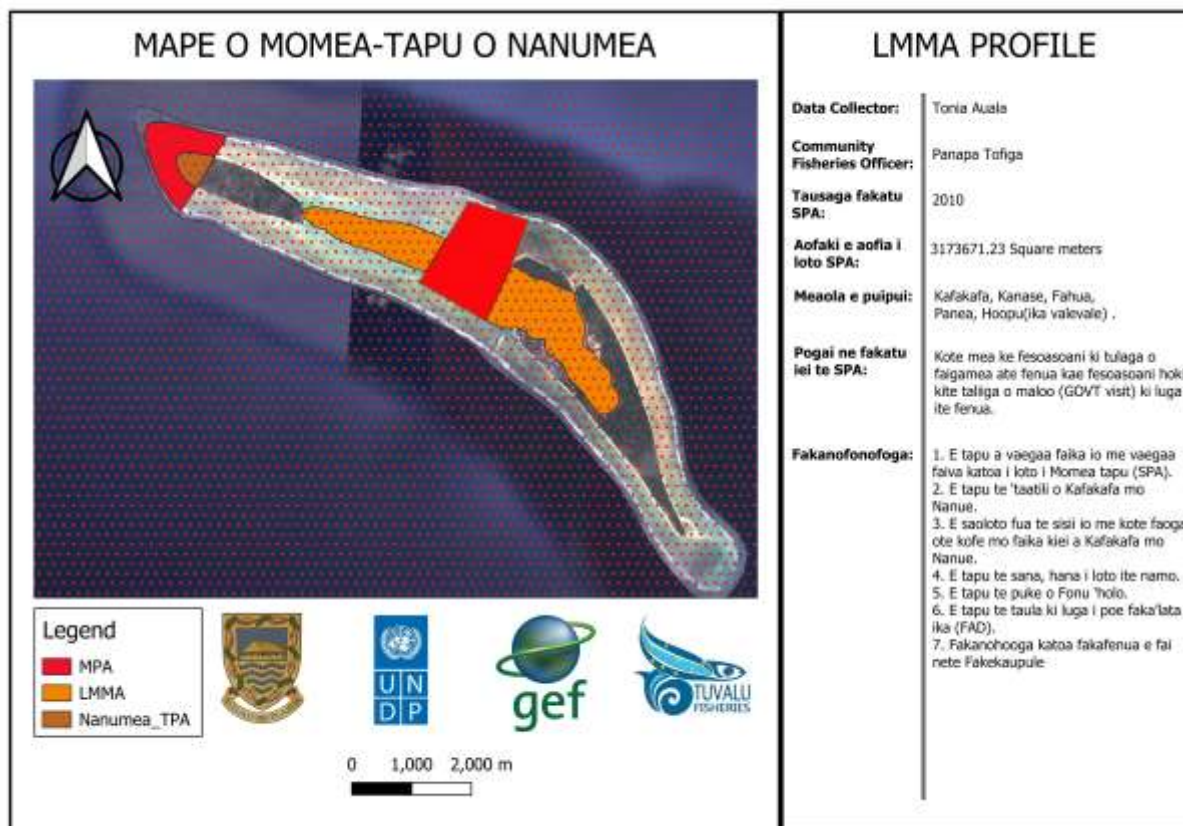


Figure. 3 Showing the entire LMMA boundaries and fisheries profile of Nanumea Island

4.9 Operation and Development Activities

INTRODUCTION

In order to complete the activities that were proposed in the Operation and Development annual workplan, two staffs joined the metronome team to the northern islands with the main purpose of completing these activities. The proposed activities are as followed;

1. FAD program - Construction and deployment
2. Sea safety - Refresher and Grab bag inspection
3. Post-Harvest training for CFC's (Nanumaga and Niutao)

These activities were carried out within a week for each island and challenges faced while implementing these activities will be further discussed below.

FAD PROGRAM

The three islands in the northern group of Tuvalu had all lost their Fish Aggregating Devices (FADs). Therefore, a need to construct and deploy new fish aggregating devices were high in demand. The team travelled with the materials needed for FAD construction with the aim was to construct a FAD on each island together with the local fishermen. The activity will enhance the fishermen capacity in the construction of FADs and also to make fishermen have an ownership feeling for the FAD in order to increase their protection of the FAD.

- Niutao FAD
Niutao island FAD was successfully constructed and was unable to deploy due to bad weather conditions. The risk of damaging the vessel while deploying the FAD was high hence the Captain of the vessel recommended to deploy the FAD some other time in the near future.
- Nanumaga FAD
Nanumaga island FAD was successfully constructed and deployed within these coordinates

(06'17.586"S – 176'18.112"E). The location chosen was agreed upon by the majority of the local fishermen and was surveyed by the TFD team (2 staff from O&D) together with the vessel crew before deployment. There was a total of 4 local fishermen who joined hands with the TFD team, together with the crew of the vessel in successfully deploying the FAD.

- **Nanumea FAD**

Nanumea FAD activity was unsuccessful due to the vessel being non-operational. However, the location for the FAD had been decided and awaiting a chance for the vessel to be in operation in order to survey the chosen location.

Although these activities were successfully implemented for Nanumaga island only, Niutao and Nanumea island FADs are still high in demand. The TFD team is planning to visit the two islands in order to construct and deploy their FADs before the year finishes.

SEA SAFETY

An inspection of Grab bags together with the sea safety refresher training was conducted for all 3 islands. The activities were conducted on Niutao, Nanumaga and Nanumea on the 17th August 2023, 30th August 2023 and 14th September 2023 respectively.

The inspection of Grab bags is an ongoing activity by the Operation and Development section in order to ensure the safety of all fishermen and to minimize the risk of lost at sea. The focus of the inspection was more on the Yellow grab bags due to the bags being distributed in 2016 to 2017. Therefore, the probability for the items within the grab bags to be lost or broken is very high.

Table.4 The table below shows the Grab bag inspection results for Niutao.

Safety Gear	Lost	Damaged	Comment
PLB	4	1	4 PLB were lost and 1 was damaged (cannot turn on)
Strobe light	2	2	The 2 broken strobe lights were replaced with strobe lights from unused grab bags. 2 strobe lights were lost.
Medical kit	2	1	All medical kits have expired
Laser flare	2	2	2 lost laser flares and 2 damaged laser flares
Sea anchor	1	1	One sea anchor was lost at sea after usage and the damaged one was torn apart by rats
Bag	1	2	The 2 damaged bags were due to the zippers not working so the bag cannot close properly
GPS	3	2	The non-operational GPS were due to damaged caused by batteries which were left inside the GPS for a long time. 3 GPS were lost
VHF	3	9	9 VHF were non-operational or damaged and 3 were lost
Compass	2	2	2 lost compass and 2 damaged compasses.
Whistle	2	1	2 lost one and 1 damaged or non-operational

Streamer	2	2	2 streamers were lost after usage and 2 were damaged by rats
Life jackets		1	All life jackets are in good condition except for one life jacket which was accidentally inflated thus has to be inflated manually.
Amount of Yellow Grab bags inspected	19 grab bags were inspected. 6 in poor conditions, 7 in fair condition and 6 in good condition		

Table.5 The table below shows the result for Grab bag inspection for Nanumaga

Safety Gear	Lost	Damaged	Comment
PLB	2		All PLB batteries are expired. 2 were lost
Strobe light	2	1	The 2 lost strobe lights together with the damaged strobe light were replaced with strobe lights from unused grab bags
Medical kit	4		All medical kits have expired. 4 medical kits were lost.
Laser flare	2		2 lost laser flares
Sea anchor	2		Two sea anchors were lost at sea after usage.
Bag		2	All bags were still in good to fair conditions. 2 were in poor conditions
GPS	2	4	Three of the non-operational GPS were due to damaged caused by batteries which were left inside the GPS for a long time and the other one was wet. 2 were lost.
VHF	2	5	5 VHF were non-operational and 2 were lost
Compass	2		2 compasses were lost.
Whistle	2		2 whistles were lost.
Streamer	2		2 streamers were lost
Life jackets	1		1 pair of lifejackets were lost
Amount of Yellow Grab bags inspected	8 grab bags were inspected. 2 in poor conditions, 2 in fair condition and 4 in good condition		

Table.6 The table below shows the results for Grab bag inspection for Nanumea.

Safety Gear	Lost	Damaged	Comment
PLB	1		All PLB batteries are expired except for the lost ones
Strobe light		1	1 damaged strobe light
Medical kit		1	All medical kits have expired. 1 medical kit zipper was damaged
Laser flare	1	2	2 laser flares were damaged and 1 was lost
Sea anchor			All sea anchors are unused
Bag		1	All bags were still in good to fair condition. 1 bag is in very poor condition
GPS			All GPS are still operable
VHF	1	3	3 VHF were non-operational and 1 was lost
Compass			All compasses are still operable.
Whistle			Whistles are still in good conditions
Streamer			All streamers still in good condition
Life jackets			All life jackets were unused and in good condition
Amount of Yellow Grab bags inspected			7 grab bags were inspected. 1 in poor conditions, 3 in fair condition and 3 in good condition

The tables above show the results of Grab bag inspections for the three islands. The inspection was done by two TFD officers (from the O&D section) to effectively inspect each safety equipment within the grab bags. Niutao island presented a total of 19 grab bags, 8 grab bags for Nanumaga island and 9 grab bags for Nanumea island (7 grab bags and 2 mini grab bags). The inspections were held in the CFC training centers for each island except for Nanumea which was done in the Passenger Hall. The inspection was conducted from 7pm to 9pm at night in order to allow all local fishermen to be able to attend.

These are some of the results of the inspection;

1. PLB – All PLB batteries are expired. Although still operational, the risk of the devices not functioning well in the near future is high.
2. Medical kits – All medical kits are expired and some are even lost.
3. GPS – A total of 5 GPS were lost and 6 are damaged
4. VHF – A total of 6 VHF were lost and 17 were damaged/non-operational.
5. Grab bags – A total of 9 bags are in poor conditions, 12 in fair condition and 13 in good condition. One bag was lost whereas the safety equipment is still with the fisherman.

REFRESHER TRAINING

The sea safety refresher training was conducted together with the inspection. It is an ongoing activity which greatly increases the capacity of fishermen in using the safety equipment in their grab bags. The training was open to all fishermen even to those that do not own a grab bag.

Achievement;

- A high number of young fishermen which was a priority target group were involved
- Each fisherman was able to learn and refresh their knowledge in the usage of the safety equipment within their grab bags.
- Some of the old fisherman have finally understood the importance and function of some of the safety equipment. (for instance, the usage of GPS, the three different meaning of light activation in the strobe light in terms of communication, the range of the laser flare)
- Participants for all three islands showed interest in the training and the demonstration of the usage of each safety gears.

Issues & Challenges;

- Not all of the fishermen with grab bags turned up for the inspection. (13 bags in Niutao, 10 bags in Nanumea and 8 bags in Nanumaga)
- Some fishermen are still seen to go out fishing without the safety grab bags or only a few safety gears but not the whole grab bag (taking only the GPS, PLB and VHF)
- Some fishermen have forgotten how to operate the GPS and how to check if the PLB is still functional.
- Fishermen do not restock their battery supplies. Once the batteries are out of stock, the safety equipment will be left unused.
- The refresher training is highly recommended to be implemented every year and for fishermen to rely more on the grab bags for their own safety at sea.

CFC POST HARVEST TRAINING

The primary objective of this post-harvest training is to introduce a new preservation method for each CFC's. This new method aims to increase financial returns and to provide the community on each island with a new taste of the product.

The training was held on the 16th of August 2023 for Niutao and on the 27th of August 2023 for Nanumaga island. The training was taught specifically for the CFC staff and the table below shows the number of staffs who participated in this training.

Table.7 CFC Staff Capacity Training Participation

Community	Males	Females	Total
Niutao	3	0	3
Nanumaga	3	0	3
Total			6

The new preservative method was successfully passed on to the CFC's staff and samples were taken to the Kaupule members for a feedback. A positive feedback was received and plans to increase the number of product and start selling into the community were made.

The only challenge faced in this activity was that some ingredients needed are not readily available on the islands such as chili powder and Kikkoman soy sauce. Therefore, CFC's have to place an order to Funafuti in order to acquire the ingredients needed. This activity was not successfully implemented in Nanumea island due to the ingredients needed for this training were not available.

4.10 General Issues and Challenges

- ✚ TFD to follow up with all Kaupule secretaries of the northern islands on information related to their Fisheries Management Plans before 22nd November 2023 for the smooth development of Coastal Fisheries Management Plans
- ✚ Experienced engine and steering problems for Manau I and Manau II caused period extensions of a week stay on both Niutao and Nanumea Islands
- ✚ Niutao Kaupule concerned about the DC Reporting submission and relieving process practiced by TFD-Coastal on data collectors – recommended for DC Reports to be checked and monitored by Kaupules (specifically by Kaupule of Fisheries) & selection of DC Relievers to be done by the Kaupule
- ✚ Niutao requested to expand GTOX monitoring survey to outer islands in future
- ✚ Nanumaga requested for TFD to conduct an outboard motor maintenance training for fishermen
- ✚ Nanumea suggested to install an internet wifi-dish at CFC centres on all Outer Islands for easy and fast communication of office work

5.0 Appendix

5.1 Seafood Poisoning Report Form



SPC Seafood Poisoning Report Form

This is an electronic form. Please fill the fields or check the boxes using your keyboard and mouse. Text fields will expand to accommodate any amount of text, so do not worry of the space for your answer seems small.

Report Form

Details of person filling in report form	
Name	Job/Position
Contact Address	
Date	Signature

Poisoned person's details		
Name	Sex (M/F)	Age (yrs.)
Address		

Details of the seafood that caused the poisoning (tick all that apply)				
Type of food	Where caught	How preserved	What eaten	How eaten
Fish <input type="checkbox"/>	River <input type="checkbox"/>	Fresh, no ice <input type="checkbox"/>	Head <input type="checkbox"/>	Raw <input type="checkbox"/>
Crab <input type="checkbox"/>	Mangrove <input type="checkbox"/>	Fresh, iced <input type="checkbox"/>	Flesh <input type="checkbox"/>	Marinated <input type="checkbox"/>
Lobster <input type="checkbox"/>	Beach <input type="checkbox"/>	Frozen <input type="checkbox"/>	Skin <input type="checkbox"/>	Cooked <input type="checkbox"/>
Other crustacean	Patch reef <input type="checkbox"/>	Salted <input type="checkbox"/>	Liver <input type="checkbox"/>	

<input type="checkbox"/>				
Gastropod <input type="checkbox"/>	Lagoon <input type="checkbox"/>	Dried <input type="checkbox"/>	Roe <input type="checkbox"/>	How many others:
Bivalve <input type="checkbox"/>	Outer reef <input type="checkbox"/>	Smoked <input type="checkbox"/>	Other <input type="checkbox"/>	Ate this meal?
	Ocean <input type="checkbox"/>	Pickled <input type="checkbox"/>	Specify:	Felt sick?
Other mollusc <input type="checkbox"/>	Other <input type="checkbox"/>	Other <input type="checkbox"/>	Specify:	Were admitted to hospital?
Specify:	Specify:	Specify:	Specify:	
Unknown <input type="checkbox"/>	Unknown <input type="checkbox"/>	Unknown <input type="checkbox"/>	Unknown <input type="checkbox"/>	Unknown <input type="checkbox"/>
What is the local name of the seafood?				
What is the English name of the seafood?				
Name of vendor or restaurant (if bought)				
Name of the place it was caught (if known)				
When was the food eaten?	Date:	Time:		
When did you first feel sick?	Date:	Time:		

Symptoms (tick all that apply)				
Burning or pain when touching cold water <input type="checkbox"/>		Pin pricking sensation on touching water <input type="checkbox"/>		
Tingling or numbness <input type="checkbox"/>		Strange taste in mouth <input type="checkbox"/>		
Difficulty or pain urinating <input type="checkbox"/>		Skin itching or red <input type="checkbox"/>		
Difficulty breathing <input type="checkbox"/>	Excessive salivation <input type="checkbox"/>	Fever / chills <input type="checkbox"/>		
Difficulty walking <input type="checkbox"/>	Excessive sweating <input type="checkbox"/>	Headache <input type="checkbox"/>		
Difficulty talking <input type="checkbox"/>	Diarrhoea <input type="checkbox"/>	Joint aches <input type="checkbox"/>		
Eye irritation <input type="checkbox"/>	Vomiting <input type="checkbox"/>	Muscle cramps <input type="checkbox"/>		
Others:				
History				
Have you had seafood poisoning before?		Yes <input type="checkbox"/> No <input type="checkbox"/>		
How many times?				
Details	When?	Type seafood	Hospital?	How long to recover?
Case 1			Yes <input type="checkbox"/> No <input type="checkbox"/>	
Case 2			Yes <input type="checkbox"/> No <input type="checkbox"/>	
Case 3			Yes <input type="checkbox"/> No <input type="checkbox"/>	
Case 4			Yes <input type="checkbox"/> No <input type="checkbox"/>	

Case 5			Yes <input type="checkbox"/> No <input type="checkbox"/>
Case 6			Yes <input type="checkbox"/> No <input type="checkbox"/>

Anything you remember about past poisoning?

Medical data

Pulse:

Blood pressure: /

Pupils:

In case of death

Date of death:

Autopsy findings:

Other information:

Local Knowledge and Background Data



Survey Questionnaire No. ____/____

Details of person filling out this form	
Name:	Job/Position:
Contact Address:	
Date:	Signature:
Details of the person interviewed (optional)	
Name:	Sex (M/F): Male <input type="checkbox"/> Female <input type="checkbox"/>
Age (years):	Ethnic Group:

Questionnaire (tick the boxes where appropriate or fill in the blank spaces)	
1. Are you aware of any previous cases of food poisoning from seafood products among your family and friends?	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. If so, could you give a rough estimate of the number of such cases of food poisoning?	
Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, how many?
3. Have there been periods or years in which the number of cases has been higher?	
Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, when?
How would you explain this?	
4. What are the most frequent symptoms of the people who have such food poisoning?	
5. Which seafood products were supposed to have caused this seafood poisoning?	
Fish <input type="checkbox"/>	What type of fish?
Other <input type="checkbox"/>	What type of seafood?
Don't know <input type="checkbox"/>	
6. Where are the toxic seafood products most often caught?	
Ocean <input type="checkbox"/> Lagoon <input type="checkbox"/> Others <input type="checkbox"/> Specify:	



Please return this form to: The Tuvalu Fisheries Department. Thank you.

5.2 Boat & Canoe Survey Sheet



Tuvalu Fisheries Independent Boat Survey Data Sheets

The objective is to get independent counts and measurements data on all boats and canoes on the island. At the same time we can record some condition information. Do not include 'dead' boats that are really rubbish.

Island:		Date:		
Latitude (DD):		Longitude (DD):		
Surveyor 1:		Surveyor 2:		
GPS:				
Boat and Canoe Counts				
Type (boat/ canoe/etc)	Lat (DD)	Lon (DD)	Length (m)	Condition / Comments (storage, good, poor, etc)

5.3 Creel Survey Datasheet

Tuvalu Fisheries Creel Survey Data Sheets

Date:		Serial / ID Number:	
Island:		Village/Site:	
Surveyor 1:		Surveyor 2:	
Latitude (DD):		Longitude (DD):	
C1 Basic Information on Fishers			
Lead Fisher's Name:			
Date of birth:		Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Address as Village / Town / City:			
Is the fisher with others?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
➔ Data on other fishers in the landing today:			
#	Fisher's Name:	DOB (d/m/y)	Gender
1			<input type="checkbox"/> Male <input type="checkbox"/> Female
2			<input type="checkbox"/> Male <input type="checkbox"/> Female
3			<input type="checkbox"/> Male <input type="checkbox"/> Female
4			<input type="checkbox"/> Male <input type="checkbox"/> Female
5			<input type="checkbox"/> Male <input type="checkbox"/> Female
➔ Back to Lead fisher:			
How often do you go fishing per month?			/ month
How many months a year do you fish <i>(i.e. exclude closed months)</i>			months fished
What fishing methods do you usually use <i>(over the last year)?</i>		Method 1:	
Method 2:		Method 3:	
Method 4:		Method 5:	
Where else do you land your fish? What other locations? <i>(List by priority and use map)</i>			
Most often	#	Location	# trips/month
↓	1		
	2		
	3		

	4								
Least often	5								
Why do you go fishing?		<input type="checkbox"/> Subsistence <input type="checkbox"/> Income <input type="checkbox"/> Both <input type="checkbox"/> Other _____							
Please provide details:									
About how much of today's catch will be eaten at home / sold?		Home:	Sold:						
		%	%						
What would you expect as income from today's catch overall?		\$							
What is your eye-estimate of the total weight of the day's catch? (Estimated by you, not the fisher)		kg							
C2 Species composition / counts									
What is the total count by species of all fishes / invertebrates / other landed?									
Species name / Group		Number	Species name / Group						
C3 Species sizes and C4 Species weights									
Species Name		All sizes in the catch in cm and all weights in kg							
		<i>(Continue along rows for a species. Each row fits 5 fish. Repeat species in a new line if you need more space)</i>							
		cm	kg	cm	kg	cm	kg	cm	kg

3			\$
4			\$
5			\$
Did you have any gear losses during this fishing trip? What and how much to replace or repair?			
#	Gear	What loss / damage?	Cost r/r
1			\$
2			\$
3			\$
4			\$
5			\$
Please list any other costs of this fishing trip. Include fuel, wages, ice, food, drink, any other items			
#	Item description		Price
1			\$
2			\$
3			\$
4			\$
5			\$
What is the distance to the furthest site you fished in today? <i>(ask person to show you on map and draw, we will extract coordinates later)</i>			km
#	Site name	Latitude (DD)	Longitude (DD)
1			
2			
3			
4			
5			
What kind of boat used today?			
Construction: <input type="checkbox"/> Wood <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Aluminium <input type="checkbox"/> Concrete			
Type of boat: <input type="checkbox"/> Alia <input type="checkbox"/> Canoe <input type="checkbox"/> Dinghy <input type="checkbox"/> Punt <input type="checkbox"/> Skiff <input type="checkbox"/> Other <input type="checkbox"/> None			
If "other", what kind of boat?			
How is the boat powered?		<input type="checkbox"/> Paddle <input type="checkbox"/> Sail <input type="checkbox"/> Inboard Outboard: <input type="checkbox"/> 2 stroke <input type="checkbox"/> 4 stroke	
Length:		Engine:	



	m		hp
--	---	--	----

What safety gear do you have on board today? <i>(tick all that apply)</i>	<input type="checkbox"/> Oars <input type="checkbox"/> Life jackets <input type="checkbox"/> Water <input type="checkbox"/> EPIRB <input type="checkbox"/> GPS <input type="checkbox"/> Flares <input type="checkbox"/> Bailer / Bilge <input type="checkbox"/> Extra fuel <input type="checkbox"/> Others (specify):	
FADs		
Did you fish on a FAD today?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
What species were you targeting?		
Why do you use a FAD (this trip and others?)		
Are there any problems with the FADs?		
		<input type="checkbox"/> Yes <input type="checkbox"/> No
Please explain:		
C7 Perceptions of fishers		
How long have you been fishing?		years
How long have you been doing this type of fishing?		years
What other types of fishing have you done in the past ?		
Do you do other types of fishing now?		
		<input type="checkbox"/> Yes <input type="checkbox"/> No
Describe:		
Are you fishing in the same areas as 5 years ago?		
		<input type="checkbox"/> Yes <input type="checkbox"/> No
Please explain:		
Are you catching the same quantities as 5 years ago?		
		<input type="checkbox"/> Yes <input type="checkbox"/> No
Please explain:		

Are you catching the same sizes as 5 years ago?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Please explain:		
If catches are different , what has changed?		
Are you aware of any existing Fisheries Laws?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Please explain:		
Do you have any concerns about the resources?		
Thank you		

5.4 TFD MOU with Kaupule on Data Collection



Tuvalu Fisheries Department

Memorandum of Understanding (MOU)

Between

Data Collectors [Party A]

And

Tuvalu Fisheries Department [Party B]

And

Kaupule [Party C]

This is an agreement between “Party A”, hereinafter called Data Collectors, “Party B”, hereinafter called Tuvalu Fisheries Department and “Party C”, hereinafter called Kaupule.

I. PURPOSE & SCOPE

The purpose of this MOU is to clearly identify the roles and responsibilities of each party in taking precautions to protect items issued by “party B” hereinafter called Tuvalu Fisheries Department to “party A” hereinafter called Data Collectors and the integral management of main activities of Coastal Fisheries carried out in the Outer Islands under the accountability of “party C” hereinafter called Kaupule.

In particular, this MOU is intended assist data collector’s to:

- Enhance and improve their work on the field by providing them with the best technology equipment’s, motor cycles, and all other assets.
- Increase their knowledge and understanding using tablets and other equipment’s.
- Reduce costs of internet expenses and other expenses which seems to be problematic to their work in the past.
- Establish reports using the application installed in each tablet

II. BACKGROUND

Tuvalu Fisheries own and operates various types assets including items checked out to data collectors. However, data collectors had been very resourceful and valuable to the Fisheries Department in the past years and of course in the continuing coming years.

III. [PARTY A] RESPONSIBILITIES UNDER THIS MOU

[Party A] Data Collectors shall undertake the following activities:

- Undertake their best effort to ensure the proper used of items issued to them and not exposed to any loss or damaged.
- Maintain proper records of any assets issued to them.
- Periodically checking that assets are still working, used correctly and are in good condition.
- Returning of any assets to the “Party B” Fisheries Department if the holder is no longer entitled – for example; the data collector leaves the department for another job.
- Handing over of assets to a replacement custodian before departing for an extended period of absence such as study leave.
- Reporting immediately to the asset officer any loss or damaged of assets, and preparing a written report on the incident if required.

IV. [PARTY B] RESPONSIBILITIES UNDER THIS MOU

[Party B] Fisheries Department shall undertake the following activities:

- Maintain records of all assets checked out to data collectors
- Deliver or pay a quarterly visit to check and inspect all assets issued data collectors.
- Support data collectors providing appropriate assets to enhance and uplift there work more effectively.
- Provide assistance in maintenance of assets if required.



- Evaluate and assess data collected quarterly from data collectors and submit report to the Director of Fisheries.

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. If the custodian fails to prevail any assets given to them from any loss or damaged, as a result the custodian **MUST** reimburse the Fisheries department the left-over value of an asset then, another new equipment can be issued again.

VI. EFFECTIVE DATE AND SIGNATURE

This MOU shall be effective upon the signature of Parties A and B authorized officials. It shall be in force from (Day) _____ of (Month) _____ (Year) _____.

Parties A and B indicate agreement with this MOU by their signatures.

Signatures

Data Collector

Fisheries Director

5.51 Niutao Minutes

Niutao FMP Validation Minutes

1. Opening Remarks: Tukumuna – Lepaio
2. Maani: Intro
3. Kufaki: Presentation Niutao FMP
4. **Questions & Comments**
5. **Feuni:** Fia maina ite SPA & LMMA
6. Kufaki: Answer – SPA, Special Protected Area and Locally Manage Marine Area (LMMA)
7. Malau: Fia te mao ki tai
8. Filipino: E.g. Funafuti 20m te poko ki tai
9. Taliu: SPA e nofo loa mai lalo ote Kaupule me kote Fenua
10. Kufaki:
11. Feuni: Ke patino te fakamatalaga kiluga I malosi ite tausiga ote SPA...te mea ma isi se fifiga iluga ia laua konei e lua
12. Kufaki: NE fakamatalaga mai tino poto me tau o nofo loam o Kaupule
13. Lavata: SPA e onoono kiei te Kaupule mai lalo ite malosi ote Falekaupule
14. Malau: Fakamatalaga mua e lua loa tasi te LMMA kae tasi kote MPA...kae nei ko maina atu me ko isi se SPA
15. Gatii: Seki ai se koga kai fakapatino ke pono...kae e isi se kogakoga e tala oti ko pono.
16. Tauee: Fakafesili kite MPA
17. Lavata: Fakamatalaga kiluga ite SPA...NTO seai sena MPA
18. Tagata: Me mafai o saoloto te 12nm o fakaaoga ne te Fenua ki tua I vaka faika
19. Lavata:
20. Feuni: E mafai o faka MPA mai te vasia tenei kite taimi e saina iei ate FMP
21. Malau: E fia meter ki tai I SPA...R2R ne taumafai o fai te 50m te poko e tapu te faika...ke faulu kiloto ite FMP maise kiloto ite SPA
22. Gatii: E mata nei e isi se mafuliga ki kamu mo meaola I kogaa tai o NTO...
23. Malau: R2R Rapid Assessment – Ne fai ki koga tapu o NTO
24. Iuliano: Ke tufa ne tino taki tokotasi mai TFD ki fenua taki tasi ke mafai o onoono ki tulaga o FMPs...ka fili a tino ote fenua ke onoono kite FMP e mafai o kese a mafaufauga....Mooring mo Vaka lasi (NIVAGA III etc.)
25. Taliu: Lago maloo ke fai se poe mo sai a vaka konei e aumai saale...ne avaka iloto ite Falekaupule.
26. Gatii: Fakapatonu me ne avaka ite Falekaupule ate mao telaa e mafai anchor iei ate vaka...Mooring e lasi kii te fakamaseiga kiluga kope konei mai galu mo peau
27. Iuliano: Ke fai loa te poe...me maa galo te alaga sene tenaa e mafai o fakamaua kiei a fesoasoani.
28. Kufaki: e note ki lalo ke mafai o fakataunu mafai ko fai te review....ma fai e isi ne sene e toe
29. Malau: Nea species e fai kiei ate study kite size limit
30. Kufaki: E pule loa ate fenua I species e filigina ne koulua
31. Tetoa: E isi ne species ko seai nei I...kae ne isi I aso mua...kaia ne galo iei
32. Filipino: Lasi te harvest, mafuilfuliga tau o aso, ko seai ne meakai ite koga e ola iei
33. Feuni: Ke fili ne te fenua a species kolaa e manako latou ke fai kiei te study
34. Salili: Ke toki se pine (demarcation) ote koga tapu
35. Taemanu: eilooa katoa ne tino ote fenua ate boundary o koga tapu



- 36. Malau: Fesili kiluga I grab bag me mata e isi se tulafono ki grab bag ma fano tagata ki moana
 - 37. Taliu: E mafai te kogatapu e talia o toe mafai....fuli te boundary ke sao te ava mai te koga tapu.
 - 38. Iuiliano: Ke fakatumau ote check saale o grab bag a tagata faika....ka fai ko expire ke fakatumau te fakamaua mai ne te TFD
 - 39. Iuliano: Niisi vaega kolaa seki oko kiei te mainaga ote Fenua kite atafaiga ote papa....ka mafai o fakatumau te fakalausa
 - 40. Gatii: Ke mafai o fakamaua mai a mea kolaa ko expired iloto ite grab bag....iloo ite fakamaumau kilalo kae seai ne mea e fakamaua mai.
 - 41. Fapula: Manakoga TAIVALU....mea kolaa e mafai o repair kiei a pooti seki ai loa kai maua, penaa foki mo paopao konei e lavea atu e isi ite TFD
 - 42. Tauue: Muna fakafetai mote workshop
 - 43. Lepaio: Muna fakaoti mote ponoga ote workshop
 - 44. Salili: Lotu fakaoti
- 5.52 Nanumaga Minutes**

CFMP Nanumaga Minutes

Opening Remarks&Prayer: Tukumuna

Introduction: MP

Prsentation CFMP: Kufaki PKaitu

Names	Comments
Lutelu	1. Foreword should be done by Chief and PK 2. Te Akau Talie should include inside MAP 3. 2.5inches Gillnet where it comes from, is it a Regional standard??? 4. Remarks for the presentation
Kufaki	Answer
Sosene	Women raised this issue about 2.5inches
Lutelu	To confirm, any standard in the Regional??
Kufaki	Answer
Taukimua	Turtle, Other islands they still fish for Turtles
Filipo	Answer
Taukimua	Before we used to fish for turtles, but it is good if the community to allow turtle to be used
Kufaki	Answer
Opeta	Some other islands they used turtles, why not Nanumaga do the same thing using turtle



Sulivanu	How does the Turtle travel?
Filipo	
Puletasi green	Turtle move around the world and it could come back to its birthplace
Kufaki	Answer
Paka	Turtle in SPA should not use, before Nanumaga have some places that always
Lutelu	Eating turtle eggs is prohibited, and it was base from the community decisions.
Sikiga	We can change this rule about killing of Turtle, for the sake of the community
Kufaki	Answer
Hofeni	Fish farming in the Hapai, is there any specific species that can be farm inside Hapai
Kufaki	Answer
Opeta	Sharks if by any chance cannot be aggressive if we farm it
Lotelika	Is there any specific species that the TFD can advise so that the community can farm it
Kufaki	Answer
Lutelu	R2R advise that there are other species that can farm inside Hapai
Tiuau	Spawning season, TFD trained for this and they can add into the PLAN
Kufaki	Answer
Sulivanu	Is there any proof for those studies
Hofeni	Sharks, is there an impact by killing sharks
Kufaki	Answer
Taukimua	Is there any advise to minimize the impact of sharks to fisher
Kufaki	Close



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5.53 Nanumea Minutes

CFMP Minutes Nanumea 2023

PK: Opening Remarks

Tekava: Opening Prayer

MP: Introduction

Loto: Presentation

NAMES	COMMENTS
PK	<ol style="list-style-type: none"> 1. Fisheries Management Committee will select by the community??? 2. What if FMC select by the TFD...to implement the CFMPs or is there any specific Fisheries officer that look after the CFMP
Lotokufaki	Answer
Eselā	Removing of sand from Hahake will start in January 2024
Lotokufaki	Answer
Eselā	<ol style="list-style-type: none"> 1. Conduct a study on reef fish...to fish more on pelagic species 2. Do the community need to request if needed a study on marine resources 3. Misunderstanding on LMMA MPA and SPA
Fanumi	Ponuponu – SPA: E mafai o fakaaoga te ika tenei maise ke fakatalia I niisi taimi ke tala...kafai se keli e fano o masei.
Tofiga	SPA – E mafai o tala e mafai foki o pono....mafai ko isi ne mea fai ate Fenua. Kae ka manako fafine ke tala...kaati e tau loa o tusi se tusi fakatagi ke avaka kiluga ite Kaiga Alikī.
Sualiki	E mata nei e isi ne savea kai fai iloto ite namo....e lavea ko seai ne kalea, panaea, fasua etc.



Tofiga	E gali ma fai te savea ke iloa fakatasi me nea tonu loa a pogai e mate iei a meaola iloto ite namo.
Tekava	FADs – E mata kaia se leva te ola io me galo a FADs konei e pei saale.
Tofiga	Ko koga kolaa e pei iei FADs kote mea ke mafai a ave coordinates ki vaka ate Atufenua ke iloa ne latou.
Tofiga	Ke pine (demarcation) o koga/momea tapu mai tai foki loa ite tai ke oko loa kiuta ite Fenua.
Soketa	<ol style="list-style-type: none"> 1. E tata pefea ate one tela ite mata o Hahake 2.
Tofiga	<ol style="list-style-type: none"> 1. Te lasiga o ava mo loto I Hahake ko tanumia ne te one tenaa ne fakasaae aka iei te mafauauga ke tapale te one 2. E mata e mafai o faulu se Drone kiloto ite palani ke mafai fakaatuu tasi mo ofisa konaa galue e onono ki momea tapu
Neia	<ol style="list-style-type: none"> 1. E isi ne faiva konei e lavea ite palani....kote mea ke fakatonu aka me iloto I momea tapu seai loa ne faiva e saoloto. 2. Iloto I by-law ote 2014 e sae katoa iei a fakasalaga...kae kote by-law tenaa koi nofo mote FLO...kae kaati e gali ma galue fakatasi mote FLO ki tulaga ote by-law
Tofiga	<ol style="list-style-type: none"> 1. E tapu te sana ite namo kae kote ava e saoloto mote kautua. 2. Ke mafai o fakamaina aka te SPA mote MPA kote mea ke tai lasi te maina o tino ke fai se ikuga kiei 3. Ko avaka faka mataupu ke fai kiei se ikuga



5.6 Attendance

Nanumaga Island

Workshop Name: SEA SAFETY REFRESHER TRAINING
 Date: 30/08/2023
 Venue: GFL TRAINING CENTER (NANUMAGA)

Name	Signature
KASI	
TELULU	
MALUA	
LUKA	
ENOFA	
TOMALU	
TAAM	
MATI	
PELESALA	
ALUHELU	
ALFALIA	
SILKINA	
TEINAMASI	
KELETA	
SETI	
MAEA	
MEANKE	
SAMA	
MAHAGA	
TALEPA	
TEKAVA	
JOELU	
PETELI	
TANKELE	
FILIGA	
TEMSO	
LITELI	
SIKUEA	
SHEFENUA	
FALESAMUA	
POLGAI	
JOSEPE	
ELIANGA	
POUSIMB	
PITAM	
SOSEME	
PAPA	
HUOLO	
PUKEMAU	
TAMU	
NIKATHI	
LAUTIBO	
TAUKIANGA	

Workshop Name: SEA SAFETY REFRESHER TRAINING
 Date: 14/09/2023
 Venue: PASSENGER HALL (NANUMEA)

Name	Signature
TEKAVA SOKE	
PATULIKA MALAKI	
CIMONA FIATIA	
JAKOPO SIITIA	
GEORGE HALE	
MAMU . I	
HAWLANGI	
TAFAD	
TOFIUA . P	
VALLAHI	
NEIA	
TONIA	
TONY	
TAMLETA MALAKI	
FONGALI JOSEFIN	
PULATONU	
KARL	
SANTO	
FELIX	
TEPUSI	
NEEMIA	
ALATEIMA	
CIAOSI	
LAVATA	
BEN	
LANDO	
SAILUSI	
TAMNII	
EVALAIMA SOKE	
TUIE	

Workshop Name: SEA SAFETY REFRESHED TRAINING
 Date: 17/03/2023
 Venue: CFC TRAINING CENTER (NIUTAO)

Name	Signature
FUALILY	
GINIA	
JULIET FAGAUTA	
JOYCE KATEPU	
PAKAI MAANI	
CHENKA	
SINOSI NIA	
TEVAIMAD MAMATU	
TRAUUMAU PATELA	
KAILAVEA A	
PAKAI NE T	
TEFATA L	
LESEFUGA F	
PASILI P	
LIMA	
TEFAU	
TUIVAE	
LOKEA	
QAATI ENOSA	
NIITI SELOTA	
SUITA	
LAKAITOA	
MATAPEPE	
PANETA	
TIALI	
TITO	
FALAKA TEIPALI	
FAPALOGA S	
KAPUA SAALU	
NIUA	
LOPATI	
TUITOIA PELOSA	
TOMEA	
TELEKE	
HAULAPI K	



NIUTAO ATTENDANCE LIST - SEA SAFETY REFRESHER TRAINING

IFO 26 METRONOME (NORTH)
PARTICIPANT LIST (NIUTAO)

DAY 3: 17/08/2023 SEA SAFETY REFRESHER TRAINING

NAME	SIGNATURE
1. Fuafuau	Fuafuau ✓
2. Suis	Suisala ✓
3. Juliet. Fagaua	Juliet Fagaua ✓
4. Joyce Katapu	Katapu ✓
5. Paka Manu	Paka Manu ✓
6. Lifuaka	Lifuaka ✓
7. Suaso. Nia	Suaso ✓
8. Tevaimao. Mundu	Tevaimao ✓
9. Manu. Pateta	Manu ✓
10. KAULAVEA. A.	Kaulavea ✓
11. Pakaiva. T	Pakaiva ✓
12. Tevata L.	Tevata ✓
13. Josefuga	Josefuga ✓
Pasili. P	Pasili ✓



	<u>SINIMU NIUE</u>	<u>NAME</u>	<u>SIGNATURE</u>
15. LIMA.	<i>[Signature]</i>		
16. Tefau.	<i>[Signature]</i>	32. Tuitoga Pelasa.	<i>[Signature]</i>
17. TUUVHE	<i>[Signature]</i>	33. TOMEA	<i>[Signature]</i>
18. hakea Paulina	<i>[Signature]</i>	34. Teveke	<i>[Signature]</i>
19. Gafii Enosa	<i>[Signature]</i>	35. Haulapi . R	<i>[Signature]</i>
20. Niiti Qleta	<i>[Signature]</i>		
21. Suta	<i>[Signature]</i>		
22. Lakantaa	<i>[Signature]</i>		
23. Matapepe	<i>[Signature]</i>		
24. PANETA	<i>[Signature]</i>		
25. Tiali	<i>[Signature]</i>		
26. Tifo	<i>[Signature]</i>		
27. Fasilaka Tepali	<i>[Signature]</i>		
28. Falcauloga . S	<i>[Signature]</i>		
29. KADUA SKALU	<i>[Signature]</i>		
30. Nua	<i>[Signature]</i>		



NANUMEA ATTENDANCE LIST - SEA SAFETY REFRESHER TRAINING

NANUMEA		REFRESHER TRAINING	
NAME	SIGNATURE	NAME	SIGNATURE
1. Tethawa Saka	[Signature]	14. Tauteta - Lalaki	[Signature]
2. Petalika, Malaki	[Signature]	15. Fouali - Loofa	[Signature]
3. Samua, Jafu	[Signature]	16. Puratani	[Signature]
4. Lalofo Suetra	[Signature]	17. KARL	[Signature]
5. George - Hale	[Signature]	18. SANTOBI	[Signature]
6. Mawa, T.	[Signature]	19. FELIX	[Signature]
7. HALLAET	[Signature]	20. TRASI	[Signature]
8. Tofica P	[Signature]	21. NEKALIA NEMLA	[Signature]
9. Vaulahi	[Signature]	22. Alakama - Urukaka	[Signature]
10. Nara	[Signature]	23. SIOCI SIO	[Signature]
11. TONIA	[Signature]	24. Laufo	[Signature]
12. Tony	[Signature]	25. BEN	[Signature]
13. KULITA	[Signature]		



NANUMAGA ATTENDANCE LIST - SEA SAFETY REFRESHER TRAINING

NAME	SIGNATURE	NAME	SIGNATURE
1. Kasi		10. Mace	
2. Telulu		17. Meeuloo	
3. Matua		18. Soma	
4. Luaka		19. Mahaga	
5. Erata		20. Talepa	
6. Tomala		21. Tekura	
7. Taam		22. Loela	
8. Maki		23. Petali	
9. Pussola	P.K.	24. Taulete	
10. Avelu...		25. Filiga	
11. Aofagia		26. Tuvu	
12. Sikiga		27. Falesamoa	
13. Taimasasi		28. Liteli	
14. Keleta		29. Simeea	
15. Seti		30. Suefaua	