



**Tuvalu Fisheries Department:
Coastal, NAPA II and Operations & Development Sections:
Trip Report**

**Nukulaelae and Niulakita
13-27 November 2016**



Niulakita approach

Filipo Makolo, Hetoa Kaio, Lale Petaia, Lotokufaki P. Kaitu, Maani Petaia, Manuao Taufilo, Paeniu Lopati, Semese Alefaio, Teti Panapa, Tupulaga Poulasi, Viliamu Petaia (authors alphabetical)

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1 Summary

An outer islands trip to Nukulaelae and Niulakita was undertaken by the Coastal, NAPA II and Operations & Development sections of the Tuvalu Fisheries Department from 13th to 27th November 2016, using the Fisheries research vessel RV Tala Moana. The trip was funded under the World Bank Pacific Regional Oceanscape Programme (PROP).

The expedition was designed to collect data on the importance of fishing in the community (consultations), fishing capacity (all assets) and state of the resources (ciguatera and creel surveys). Workshops and materials focused on sea safety, distribution of grab bags, supply of an aluminium welder and welding techniques for maintaining boats were also carried out. The main datasets collected and activities completed were: (1) Key informant and Group consultations; (2) Socio-economic surveys at household level; (3) Ciguatera poisoning cases; (4) Creel surveys of fishers' catches; (5) Locally managed marine area / marine protected area (LMMA/MPA) location, size and rules; (6) Independent counts and measurements of boat assets on the island; (7) Fisheries assets including condition of the CFC and its assets; (8) Assessment of the Community Fisheries Centre (CFC) as part of planning for a new training fale to be built by NAPA II; (9) Workshops / training on sea safety and distribution of grab bags; and (10) Inspection and assessment of FADs and Memorandum of Understanding with Fishers on their use and maintenance. All parts of the work requiring data collections were facilitated by the use of formal datasheets (some from SPC, some developed internally for this work) and data stored in the Coastal Fisheries Database (CFD) for later analysis.

A total of 16 key informant, 34 households and 2 community consultations were completed across both islands. Fish poisoning was not considered an issue on either island and no records of fish poisoning were collected by medical staff. Overall 10 creel surveys were completed, all on Nukulaelae. On both islands boundaries of the LMMA/MPA were recorded by GPS and although tapu arrangements are working on both islands, Nukulaelae has requested assistance with a by-law. The independent boat survey found a total of 55 boats and canoes on these islands (53 in Nukulaelae and 2 aluminum boats on Niulakita). The CFC in Nukulaelae (no CFC in Niulakita) is in poor condition and many of the assets are also in poor condition and require maintenance. An aluminium welder and training to 4 users was supplied on Nukulaelae to assist with boat maintenance. Also sea-safety training centred on the use of a Global Positioning System (GPS) and provision of grab bags was made on each island (16 grab bags on Nukulaelae and 2 on Niulakita). Nukulaelae had only 1 of 2 FADs remaining, with no FADs ever deployed on Niulakita. An MOU for FAD use and maintenance is now under review and expected to be signed during the next visit to Nukulaelae. Some additional work was carried out on school awareness and 3 previously unrecorded species were identified on Niulakita.

Some of the main issues encountered during the expedition included the following. A more comprehensive list is given in the main body of this report.

- Key informants were often hard to interview because they were busy elsewhere and/or because they were reluctant to release their knowledge;
- Poor records are available from the islands including by-laws, meeting records and assets, making collecting information difficult and in some cases impossible;
- Kaupules have not been successful at maintaining and running CFCs for the benefit of the community;
- Women have limited involvement in post-harvest processing. This is not related to limited knowledge but due to modernisation and falling interest and availability of freezers;



- The community has little information on the VDS funding available to them and are confused about its use and who controls the funding;
- In Nukulaelae, the LMMA/MPA boundaries are not marked and rules are not clear resulting in confusion by fishers and the Kaupule;
- FADs were not being maintained well and no coconut fronds had been attached (Nukulaelae). This led to poor catches around the FADs. Fishermen did not want to tie leaves on the FADs;
- On Niulakita running the sea safety workshop prevented fishers from going fishing, making it impossible to collect creel data. In future this will need to be taken into account during Metro trips; and
- In Niulakita access to fishing grounds is extremely difficult during bad weather, affecting the number of creel surveys possible. At those times people may fish for crabs or birds. In future surveys, these will be included in creel samples if necessary.

As a result the following recommendations were made for future work:

1. An MOU for work on the islands and a detailed request well in advance of the trip needs to be given to each Kaupule before arriving on island, with the request that the Kaupule warns the community of the work to be done. Acknowledgement from the Kaupules is needed before the trip begins. This should outline the work to be done so there is a realistic expectation from the community on what is required of them;
2. It may be worth establishing an information sharing technique on data collections and findings so that people are more likely to share their fishing information;
3. Managers should enter into inter-departmental discussions with the responsible ministries to improve record-keeping on the islands (e.g. Kaupules, CFC missing data);
4. Fisheries should work with Kaupules to improve business arrangements for the CFCs. This should be considered in 2017 work plan;
5. Fisheries should focus on involving women and youth more in fish processing, as planned in NAPA II;
6. Fisheries and Kaupule should carry out awareness on the VDS on outer islands;
7. R2R and NAPA II need to carry out the marking project for which they have been funded as soon as possible to demarcate the LMMAs. This should include redefining objectives of each LMMA;
8. Fisheries should investigate the use of non-biodegradable materials for use on the FADs. Use of VDS for setting up and maintaining FADs by the Kaupule should be investigated;
9. MOUs for FADs need to be reviewed and signed on next outer islands trip; and
10. R2R officers should work closer with Fisheries staff as many of their tasks overlap.



2 Introduction

Regular outer island trips have been incorporated as part of the Fisheries Department's work plan to gather regular information on coastal fisheries and fishery assets. The Departmental sections most involved in these tasks are the Coastal Fisheries and Operations & Development Sections. The 2016-2017 Workplans also calls for surveys to be undertaken as part of the GEF-funded and UNDP-implemented National Adaptation Programme of Action (NAPA) II activities which focus on Locally Managed Marine Areas, improvements to the Community Fisheries Centres and several modules on canoe-building, traditional fishing techniques, preservation and Fish Aggregating Devices (FADs).

Most of these trips, at least one per island per year, rely on the regular metronome trips coordinated by the Fisheries Department under NAPA II. The remainder of the trips will be funded by TFD through its New Zealand TFSP and World Bank PROP. Three trips have been organised for 2016 to cover all of the outer islands:

- A NAPA II Metronome trip to the northern islands Nanumea, Nanumaga & Niutao in June;
- A second non-metronome trip to the central islands Nui and Nukufetau in August-September; and
- A NAPA II Metronome trip in November to visit the two southern islands (this report).

This expedition to Nukulaelae and Niulakita focused on gathering data and carrying out activities in 10 major areas:

1. Key informant and Group consultations – including Kaupule, Falekaupule, Women, Fishers and the community in general;
2. Socio-economic surveys at household level, covering 30% of the population;
3. Ciguatera poisoning cases, if any, on the island;
4. Creel surveys of fishers' catches;
5. Locally managed marine area / marine protected area (LMMA/MPA) location, size and rules
6. Independent counts and measurements of boat assets on the island¹ – including public and private boats;
7. Fisheries assets – including condition of the CFC and its assets and any other fisheries infrastructure to add to our understanding of fishing capacity;
8. Assessment of the Community Fisheries Centre (CFC) owned by the Kaupule as part of planning for a new training fale to be built by NAPA II;
9. Workshops / training on sea safety and distribution of grab bags; and
10. Inspection and assessment of FADs and Memorandum of understanding with Fishers on their use and maintenance.

These activities were designed to provide a basis for the island profiles to be produced for each island. Data on socio-economics, infrastructure and fishing were gathered to also provide baseline information on the importance of fishing in the community (consultations), fishing capacity (all assets) and state of the resources (ciguatera and creel surveys). The Sea safety/grab bags and FAD work, carried out by the Operations and Development staff focused on providing services to the island's fishers to improve their safety at sea and access to close-by oceanic tuna resources.

¹ These were to be independent of the information collected from households, with data collected by the team walking around the island and recording data on all boats



3 Methods

The expedition was run between the dates of 13th to 27th November 2016, using the Fisheries research vessel, the RV Tala Moana (purchased with NAPAI funds). Ten days were planned for Nukulaelae and 3 for Niulakita, allowing sufficient time for 11 people to carry out all parts of the survey, assessment, training and maintenance work (see author list on front cover for officers on the trip).

All parts of the work requiring data collections were facilitated by the use of formal datasheets (see Appendix 2). The datasheets provided a structure that ensured all questions could be answered for all surveys on both islands. Some of the datasheets followed SPC protocols previously used on socio-economic surveys, creel surveys and seafood poisoning reports by health professionals or our surveyors. Additional datasheets were developed for key informant and group surveys, attendance at group meetings, LMMA/MPA work and the independent boat survey. A data control sheet (see Section 7.1 on page 12) was used to ensure all replicates were completed as planned.

Data collected during the surveys were entered into the Coastal Fisheries Database. The database replaced those provided by SPC (SEMCOS and the Creel database) because the SPC server became unserviceable and could no longer be accessed for data entry. The Coastal Fisheries Database (CFD), built as a spilt database in Access 2010, was installed in the Coastal Fisheries temporary server which was taken into the field. A local area wifi network was established (without access to internet) to allow staff laptops to connect to the server for data entry and printing.

On Nukulaelae 30% and on Niulakita 100% of all households were surveyed (24 on Nukulaelae and 10 on Niulakita) for socio-economic data. Several key informants among the Kaupule, Falekaupule, Women and Fishers were consulted to capture fisheries-related concerns among each group. One to 2 community meetings were also run on each island. Initial and debriefing meetings were also conducted with the Kaupule on each island.

The Health staff were consulted to determine the number of cases of ciguatera or other types of seafood poisoning over the past few years. If the staff, previously given poisoning report forms (see Section 7.5 on page 28), had not completed the form, the affected persons were contacted and interviewed by the team.

Creel surveys were carried out around the island wherever fishers were landing their catch. Many of these tended to be boat landings at the main channel for the island, but there were fishers who cast nets across the reef crest by walking there and other forms of fishing. For each catch landed, data were collected on the vessel (or not) used, costs of fishing (fuel, time, other costs), fishers perceptions and length and weight of all seafoods landed. This included any oceanic fishes, reef fishes, invertebrates or other types of seafood that might be targeted. A total of 20-50 creel surveys was the target for each island.

The Locally Managed Marine Area (LMMA/MPA) on each island was visited with a Kaupule official and its boundaries recorded using a GPS. Key information on the LMMA was collected and copies of any written rules or by-laws collected.

The independent boat survey was carried out during a period when those on the island were unlikely to be fishing (during Sunday or a community event). At that time all of the Coastal Fisheries Team split up



and combed the island to locate every boat they could. At that time, they measured the length of the boat and recorded its materials (but not power) along with a GPS reading.

A full condition and assets survey of the CFCs was carried out at Nukulaelae (no CFC at Niulakita) during this trip and the assessment for the new training fale is still outstanding.

The workshops on sea safety, distribution of grab bags, inspection of and MOUs for FADs were carried out by the Operations and Development Section, with assistance from the Coastal Team.

4 Results & Data storage

4.1 Key Informant and Group Consultations

Two consultation meetings were held with Kaupules during the visit. A briefing meeting was held on both islands at the beginning of the trip and an exit meeting before the team departed the island. Also a total of 16 key informants were interviewed from both islands. These are people representing the Falekaupule, Kaupules, fishers and women.

These meetings enabled the team to dialogue and investigate further information on related issues. On Niulakita, 2 full days were spent on delivering community awareness and training on both NAPA II related activities and fisheries. These activities targeted subjects on disaster preparedness and sea safety which were delivered with assistance from the Tuvalu Red Cross and NAPA II.

4.2 Socio-economic Surveys

In Niulakita, 10 (100%) of households were surveyed whereas in Nukulaelae a total of 24 (30%) of households were surveyed.

4.3 Ciguatera

No cases were found from hospitals on either islands. The majority of people interviewed during the survey said that ciguatera was not an issue for any reef species on either island.

4.4 Creel Survey

At Niulakita no creel data were collected due to the limited fishing during the workshops. 10 fishers were interviewed on Nukulaelae.

4.5 LMMA/MPA Assessment

Demarcation of LMMA boundaries: 32 GPS waypoints were collected from Niulakita and 42 waypoints from Nukulaelae. More work is required on improving progress on LMMAs. A draft by-law for the Nukulaelae community marine managed area was approved by the community in May 2013 and was sent to the A.G officer for review. No further information was obtained in regard to this from Kaupule. Both islands still hold strong connections with their traditional practices (no formal by-laws on resource management). For example, on Nukulaelae there is a seasonal calendar in use for imposing tapu on some species. A draft management plan was also developed by the community in collaboration with fisheries staffs in 2006. This plan highlights several important undertakings that were in line with the current fisheries plan.

4.6 Independent Boat Survey

The surveys found 53 boats and canoes on Nukulaelae and 2 on Niulakita (Table 1). The most common boat type was the aluminium dinghy and relatively few canoes were in use.



Table 1: Boats and canoes counted on each island

Island name	Aluminium dingy	Aluminium Canoe	Wooden dingy	Wooden Canoe	Fibreglass dingy	Total
Niulakita	2					2
Nukulaelae	36	4	5	5	3	53

4.7 Fisheries assets & CFC

4.7.1 Assets

On 19th November an assessment of assets at the CFC was carried out. The status of the CFC on Nukulaelae is generally very poor and requires proper maintenance work to the building and some of the facilities that are hosted by the centre (Figure 1 and Table 2). In order to improve the centre, it will require further technical assistance on building the capacity of staff and management systems. Listed below are the key assets recorded at the site:

Table 2: CFC assets recorded at Nukulaelae

Item Name	Number	Description	Status	Comments
Tank	4	20,000 litres	Good and use	
	1	10,000 litres	Good condition	Used for cleaning
	2	20,000 litres	Damaged	Not in use
	1	Overhead tank	Fair condition	In use
Dryers	5	Wooden dryers	Good condition	In use
	1	Freezer	500 litres	Good
Generator	1	500 litres	Damaged	Very poor
	1		Good	No use
Ice Maker	1		Damaged	Very poor
	1		Poor	No longer use
Building	1	Need overhaul	Very poor	Not fit for use

Figure 1: The Nukulaelae CFC building and facilities



4.7.2 Sea Safety, Welding & Boat Training

Sea safety training was delivered on both islands. Two safety grab bags were deployed in Niulakita and 16 bags were deployed to fishermen on Nukulaelae.

Figure 2: Sea safety equipment and workshop





4.8 FADs & MOU

FAD maintenance: On Nukulaelae, maintenance work was undertaken by the team on their FAD. Two FADs were deployed in 2012, and we discovered that only 1 is still active on the island. The GPS location were also taken during the trip to the site.

An MOU was reviewed by fishers on Nukulaelae, but is yet to be signed on the next trip. The main concern expressed was a previous lack of information on the MOU.

4.9 Other work

School Awareness: A school awareness activity was delivered to educate children on Nukulaelae on issues related to climate change and fisheries.

Community data collector: We acknowledge the great assistance provided by the officer on the island during our stay on Nukulaelae. There's a need to confirm a secured fund to meet future salary for this officer.

VDS: Both islands showed very little knowledge on the Vessel Day Scheme (VDS), especially on Niulakita.

New species recorded: On Niulakita, 1 plant species (Ifilele²) was recorded for the first time on that island. This species, *Intsia bijuga* is a scrub mahogany that is present in neighbouring islands such as Fiji and Samoa. It is a highly-valued species on the market, commonly used for house and furniture timbers in developed countries. In addition, 2 reef fishes from Niulakita were identified and it is unknown whether they occur elsewhere in Tuvalu. The species were *Epinephelus poecilonotus* (gatala) and *Plectorhinchus vittatus* (see Figure 3).

Figure 3: TOP: Ifilele fruit and leaves, BOTTOM: *P. vittatus* and *E. poecilonotus*



² There are 3 enclosed lagoons on Niulakita, one of which is named after this plant



5 Issues

Several issues were encountered on the islands and/or during the trip as follows:

- Key informants were often hard to interview because they were busy elsewhere and/or because they were reluctant to release their knowledge;
- Poor records are available from the islands including by-laws, meeting records and assets, making collecting information difficult and in some cases impossible;
- Kaupules have not been successful at maintaining and running CFCs for the benefit of the community;
- Women have limited involvement in post-harvest processing. This is not related to limited knowledge but due to modernisation and falling interest and availability of freezers;
- The community has little information on the VDS funding available to them and are confused about its use and who controls the funding;
- The LMMA/MPA boundaries are not marked and rules are not clear resulting in confusion by fishers and the Kaupule;
- FADs were not being maintained well and no coconut fronds had been attached (Nukulaelae). This led to poor catches around the FADs. Fishermen did not want to tie leaves on the FADs.
- On Niulakita running the sea safety workshop prevented fishers from going fishing, making it impossible to collect creel data. In future this will need to be taken into account during Metro trips;
- In Niulakita access to fishing grounds is extremely difficult during bad weather, affecting the number of creel surveys possible. At those times people may fish for crabs or birds. In future surveys, these will be included in creel samples if necessary;
- A lack of power in Niulakita mean that there was no way to enter data;
- There were a lot of empty houses on outer islands due to migration to Funafuti, making it difficult to carry out socio-economic surveys;
- There were problems with staff being sick during the trip, resulting in lost work days and reduced data collections; and
- The database and sheets requires further maintenance for future work. In the demographic section some questions were missing from the data entry sheets and which appear in the forms. FAD questions were missing in the Creel datasheets due to use of older sheets. These need to be rectified as soon as possible.

6 Recommendations

A number of recommendations are made on improvements for future outer islands trips as follows:

1. An MOU for work on the islands and a detailed request well in advance of the trip needs to be given before arriving on island, with the request that the Kaupule warns the community of the work to be done. Acknowledgement from the Kaupules is needed before the trip begins. This should outline the work to be done so there is a realistic expectation from the community on what is required of them;
2. It may be worth establishing an information sharing technique on data collections and findings so that people are more likely to share their fishing information (e.g. that pioneered by Bob Johannes);
3. Managers should enter into inter-departmental discussions with the responsible ministries to improve record-keeping the islands;
4. Fisheries should work with Kaupules to improve business arrangements for the CFCs. This may include increasing fish prices, location of the CFC (e.g. on Nukufetau CFC needs to be relocated to main island). This should be considered in 2017 work plan;



5. Fisheries should focus on involving women more in fish processing, as planned in NAPA II;
6. Fisheries should carry out awareness on the VDS on outer islands;
7. R2R and NAPA II need to carry out the marking project for which they have been funded as soon as possible to demarcate the LMMAs. This should include redefining objectives of each LMMA;
8. Fisheries should investigate the use of non-biodegradable materials for use on the FADs. Use of VDS for setting up and maintaining FADs by the Kaupule should be investigated;
9. MOUs for FADs need to be reviewed and signed on next outer islands trip; and
10. R2R officers should be work closer with fisheries as many of their tasks overlap.

7 Appendix: Data Sheets

7.1 Data Control Sheet



Tuvalu Fisheries

Data Control Sheet for Coastal Fisheries Outer Islands Missions

Our tasks are: 1. Key Informant meetings – Women, Fishers; Community Dialogue Meeting; 2. SE surveys at HH level (including new boat component); 3. Ciguatera Report forms; 4. Creel/artisanal; 5. LMMA/MPA/CBM; 6. Independent Boat/canoe survey (independent of HH); 7. Fisheries assets; 8. CFC Assessment for NAPA II; 9. Grab bags; 10. FADs

Island:		Team Leader:	
Date Start:		Date Finished:	

List of documents and maps collected

Document name	Type (e.g. report, plan, map)	Format (e.g. PDF, paper copy)	Copy obtained? (Y/N)

1 Key Informant / Community Surveys/Meetings

	#Surveys	Comments
Kaupule fisheries plans / issues (2)		
Fisher's Representatives (1-2)		
Women's Group (1-2)		
Community Meeting (1)		

2 Socio-economic Surveys HH

	#HH/Pers	Comments
Household demography & Consumption Survey		
Fin Fisher Survey Questionnaire		
Invert Fisher Survey Questionnaire		
Key Informant Questionnaire		
Middlemen/Agents/Shops	NA	NA
Additional Information		
Extra HH survey of boats		

3 Ciguatera

	#Records	Comments
Hospital/Clinic records		



SPC poisoning survey forms		
GTX samples taken		

4 Creel & Artisanal Tuna Surveys		
	# Surveys	Comments
Creel surveys		
Artisanal surveys		

5 LMMA/MPA Information		
	Yes No	Comments
Map of LMMA/MPA obtained?		
GPS Waypoints around Area?		
Copy LMMA/MPA rules/By-laws?		
Assessment of markers needed?		

6 Independent Vessel Survey		
	Yes No	Comments
Count & description of Public vessels		
Count of private boats & canoes		

7 Fisheries Assets		
	Yes No	Comments
Assessment of CFC building		
Listing of all assets in building		

8 CFC Assessment for NAPA II		
	Yes No	Comments
Assessment for NAPA II addition		

9 Grab bags		
	#Bags	Comments
Grab bags distributed		

10 FADs		
	Yes No	Comments
FAD assessment		
FAD repairs		
Other _____		

Any other data collected?		
Please list all other types of information collected		



7.2 Key informant and Community Meetings



Tuvalu Fisheries Survey Data Sheets

Key Informant / Community Meeting	
Target Groups:	Key Persons likely to have deep knowledge Island Community Women's Fishers, Youth Groups

Island:	Date:
Latitude (DD):	Longitude (DD):
Surveyor 1:	Surveyor 2:

Key Informant Name:		
Key Informant Position / Occupation:		
Key Informant Contacts:	Village:	
Phone:	Email:	
or:		
Group or Community:	# Males:	# Females:
_____	_____	_____

Main topic(s) of discussions:

Main outcomes of meeting

Use reverse for more space →

Please ensure you have filled in the attendance sheet for this meeting if there is more than 1 person.

7.4 Socio-economic Survey (SPC)

This sheet was adapted from the SPC SEMCOS datasheets for easier use in the field – some fields have been reduced in size for this report.



Tuvalu Fisheries Socio-economic Survey Data Sheets

Household Demography and Consumption Survey				
Target Group: (either)	<input type="checkbox"/> Head of HH	<input type="checkbox"/> Women preparing food for HH		
Objective: To gather detailed information on (i) average HH size / composition; (ii) consumption patterns; (iii) fishers by gender; (iv) boat and canoe information.				
Island:	Village:			
Latitude (DD):	Longitude (DD):			
Surveyor 1:	Surveyor 2:			
Date:	Household Number:			
Person interviewed (confidential, names will not be published)				
First name:		Last name:		
Date of birth:		Gender:	<input type="checkbox"/> Male	<input type="checkbox"/> Female
Household information				
HH1. How many people usually live and eat in your household?	Number:			
HH2. What are the ages of the male and female members in this household? (Include children and older people; please only quote persons living permanently in this household).	Males		Females	
	Person	Year of birth	Person	Year of Birth
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
6		6		
HH3. How many people in your household fish or collect on reefs and in the lagoon regularly? (Do not include people who only fish once or twice a year)	Fisher type	Male	Female	
	Invertebrates			
	Finfish			
	Both			
HH4. Does this household own any boats/canoes?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
HH4a. How many of each type	Type	Number		
	Canoes			
	Sailboats			
	Motorised			
	Other (specify): _____	Number:		



HH4b. For each vessel please specify details:

Vessel	Type	Length (m)	Materials	Power	Hp	Safety gear?
0	Boat	6m	Wooden	Inboard	75	Yes
1						
2						
3						
4						
5						
6						

HH4c. If any safety gear, list all you use:

--

HH4d. Who built your boat / canoe?

Vessel #	Type	Built by:
0	Boat	<input type="checkbox"/> Me <input checked="" type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
1		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
2		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
3		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
4		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
5		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____
6		<input type="checkbox"/> Me <input type="checkbox"/> Relatives <input type="checkbox"/> Local builder <input type="checkbox"/> Overseas <input type="checkbox"/> Other: _____

HH4e. Where do you normally store each vessel? Please mark on attached map.

Vessel #	Type	Lat:	Lon:
1			
2			
3			
4			
5			
6			

HH4f. What do you do to protect your boats / canoes, if anything, during a cyclone?

--

HH4g. Should boats in Tuvalu be licenced?

☺Strongly agree	Agree	Neutral	Disagree	☹Strongly disagree
<input type="checkbox"/>				

HH4h. What are the most important uses of your boats / canoes?
(please tick all that apply)

--



<input type="checkbox"/> Fishing	<input type="checkbox"/> Transport	<input type="checkbox"/> Feeding pigs	<input type="checkbox"/> Picnics						
<input type="checkbox"/> Recreation	<input type="checkbox"/> Racing	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____						
HH5. Where does the cash money in this household come from? (only list the sources of money contributed by people who live here usually) Rank options, 1 = most money; 2 = second most important income source; 3 = third most important income source; 4 = least important income source)		Tick <input checked="" type="checkbox"/>	Source Fishing / Seafood collection Agriculture Salary Other: _____ Other: _____	Rank (1-4)					
HH6. During an average/normal week, how many days do you prepare fish, other seafood and canned fish for your family? (Tick <input checked="" type="checkbox"/> box)	Number of days per week								
	Type	7	6	5	4	3	2	1	Or Specify
	Fresh fish								
	Other seafood								
	Canned fish								
Other:									
HH7. On average, how much do you cook per day for your household? (enter number per size class, using size chart - tool while interviewing)	FINFISH								
	Size class	A	B	C	D	E	E+ cm:		
	# fish:								
	Or kg:								
7b. Other seafood (enter data using size charts – tools used while interviewing)	OTHER SEAFOOD								
	Seafood name					No.	Size	kg	
HH8. On a day when you prepare canned fish, how many cans do you use on average / normally for the household? (Enter no. of cans per day)	Size of can				# Cans / day				
	Small								
	Medium								
	Large								
HH9. Where do you normally get your fresh fish from, and which source is the most common? (Tick <input checked="" type="checkbox"/> box and rank from 1 to 3) (1 = most common; 2 = second most common; 3 = least common source)					Tick <input checked="" type="checkbox"/>		Rank (1-3)		
	Caught by me or someone else from this household:								
	Got it from someone else (no money paid):								
	Buy it (name place): _____								
HH10. Where do you normally get your invertebrates (creatures from					Tick <input checked="" type="checkbox"/>		Rank (1-3)		



the sea other than fish) from, and which source is the most common? (Tick ✓ box and rank from 1 to 3) (1 = most common; 2 = second most common; 3 = least common source)	Caught by me or someone else from this household:		
	Got it from someone else (no money paid):		
	Buy it (name place): _____		
THANK YOU			

Finfisher Survey Questionnaire					
Target group: Fishers (men and women 15 years and older) from households surveyed					
Objective to gather detailed information on: (i) average catch size and composition; (ii) fishing techniques; (iii) proportions of catch for subsistence, gift and sale; (iv) methods of conserving and preserving seafood.					
Island:		Village:			
Latitude (DD):		Longitude (DD):			
Surveyor 1:		Surveyor 2:			
Date:		Household Number:			
Person interviewed (confidential, names will not be published)					
First name:		Last name:			
Date of birth:		Gender:	<input type="checkbox"/> Male	<input type="checkbox"/> Female	
Household information					
F1. Which areas do you fish? (Tick ✓ boxes and use chart)	<input type="checkbox"/> Coastal reef	<input type="checkbox"/> Lagoon	<input type="checkbox"/> Mangrove		
	<input type="checkbox"/> Outer reef (incl passages)	<input type="checkbox"/> Open ocean	<input type="checkbox"/> Other:	_____	
F2. Do you fish only one of the habitats that you target at a time—or do you usually visit several during one fishing trip? If so, which ones do you usually combine during one fishing trip? (please fill in)	Habitat	Only targeted (tick ✓)	Targeted together with habitat (fill in)		
	Coastal reef				
	Lagoon				
	Mangrove				
	Outer reef (incl passages)				
	Pelagic / open ocean				
Other:	_____				
F3. How often do you visit each habitat in a week, or a combination of habitats? How many hours does the average fishing trip take to this habitat, or combination of habitats?			Times / week	Hours / trip	Months / year
	Coastal Reef	<input type="checkbox"/>			
	Lagoon	<input type="checkbox"/>			
	Mangrove	<input type="checkbox"/>			
	Outer reef (incl passages)	<input type="checkbox"/>			



How many months in a year do you fish this habitat / combination of habitats?	Pelagic / open ocean	<input type="checkbox"/>					
	Other:	<input type="checkbox"/>					
F3b. Please select your most important habitat (or combination of habitats mostly fished during one fishing trip) and answer the following questions:	Most important habitat (fill in): _____						
F4. Do you use a boat for fishing?	<input type="checkbox"/> Always	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Never				
F5. When do you go fishing? (Tick ✓ box)	<input type="checkbox"/> Only during DAY	<input type="checkbox"/> Only during NIGHT	<input type="checkbox"/> Day & Night				
F6. Which fishing techniques do you use? (Tick all ✓ boxes that apply)							
<input type="checkbox"/> Handlining	<input type="checkbox"/> Spearfishing (diving)	<input type="checkbox"/> Castnetting	<input type="checkbox"/> Trolling				
<input type="checkbox"/> Gillnetting Mesh size (cm): _____	<input type="checkbox"/> Spear (walking)	<input type="checkbox"/> Spear (canoe)					
<input type="checkbox"/> Deep bottom handlining	<input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Other (specify): _____				
F7. Do you use only one technique per fishing trip, or do you use several during one trip? (Tick ✓ box) If you use more than one, which techniques do you combine during one trip? (List)	<input type="checkbox"/> One technique per trip		<input type="checkbox"/> More than one technique per trip. Which techniques?				
F8. How much do you catch during a normal fishing trip (your catch or share of catch only)? (use size charts)							
Size class:	A	B	C	D	E	E+	cm
# Fish:							
Or kg:							
F9. on an average/normal fishing trip as above, what kinds of fish do you catch? (Fill in the names and numbers per size class)					Figures are: <input type="checkbox"/> Numbers <input type="checkbox"/> kg		
Technique most often used to get this catch? _____							
Size class →	A	B	C	D	E	E+	cm
↓ Name of fish							
e.g. Emperors	20			1			



F10. Do you sell your fish? (Tick ✓ box)				<input type="checkbox"/> Yes	<input type="checkbox"/> No
If Yes, where?		<input type="checkbox"/> Within community	<input type="checkbox"/> Outside community	Which place? _____	
F11. To whom do you sell? (Tick ✓ boxes)					
<input type="checkbox"/> Individuals (houses, roadside) <input type="checkbox"/> Shop <input type="checkbox"/> Agent <input type="checkbox"/> Market <input type="checkbox"/> Restaurant					
F12. Which preservation method do you use for your catch? (Tick ✓ box)					<input type="checkbox"/> None
Tick ✓	Method	Always	Sometimes	Never	
<input type="checkbox"/>	Ice (during fishing trips)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Refrigeration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Freezing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Drying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Thank you !					
Invertebrate Fisher Survey Questionnaire					
Target group: Fishers (men and women 15 years and older) from households surveyed					
Objective to gather detailed information on: (i) average catch size and composition; (ii) fishing techniques; (iii) proportions of catch for subsistence, gift and sale; (iv) methods of conserving and preserving seafood.					
Island:		Village:			
Latitude (DD):		Longitude (DD):			
Surveyor 1:		Surveyor 2:			
Date:		Household Number:			
Person interviewed (confidential, names will not be published)					
First name:		Last name:			
Date of birth:		Gender:		<input type="checkbox"/> Male	<input type="checkbox"/> Female
IF1. In which areas do you collect sea animals other than fish? (Tick ✓ boxes and use chart)		<input type="checkbox"/> Soft bottom (seagrass, sand)	<input type="checkbox"/> Mangroves & mud	<input type="checkbox"/> Reef tops	
IF2. Which sea animals other than fish do you dive for? (Tick ✓ boxes)		<input type="checkbox"/> Beche-de-mer / sea cucumber			
		<input type="checkbox"/> Lobsters			
		<input type="checkbox"/> Mother of pearl, Trochus, Pearl shell etc			
		<input type="checkbox"/> Other: _____			



		<input type="checkbox"/> Other:				
IF3. Do you glean only one of the habitats that you target at a time—or do you usually visit several during one gleaning trip? If so, which ones do you usually combine during one gleaning trip? <i>(please fill in)</i>	Habitat		Only targeted in 1 gleaning trip		Gleaned together during 1 trip	
	Soft bottom (seagrass, sand)		<input type="checkbox"/>		<input type="checkbox"/>	
	Mangroves & mud		<input type="checkbox"/>		<input type="checkbox"/>	
	Reef tops		<input type="checkbox"/>		<input type="checkbox"/>	
IF4. Please answer the following questions for each habitat that you glean or the combined habitats that you glean during one fishing trip						
Habitat	Tick ✓	Times /week	Boat	Hours /trip	Time of glean	# Months /year
Soft bottom (seagrass /sand)	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
Mangrove / Mud	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
Reef tops	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
IF5. Please answer the following questions for each of your dive invertebrate fisheries						
Habitat	Tick ✓	Times /week	Boat	Hours /trip	Time of glean	# Months /year
Beche-de-mer	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
MoP (trochus, pearl)	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
Lobster	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
Other (clams, octopus etc)	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
Other:	<input type="checkbox"/>		<input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never		<input type="checkbox"/> Day <input type="checkbox"/> Night <input type="checkbox"/> Day/Night	
IF5b. Please select your most important habitat (or combination of habitats that you GLEAN during one fishing trip) and answer the following questions:				Most important habitat or habitat combination (fill in):		



IF6. On a normal gleaning trip, what species do you catch?

(Fill in the names and numbers per size class) (use size charts)

Species / name	Total #/trip	Avg Size (cm)	Total kg/trip	Used for			
				Consumption	Gift	Sale	
						In Village	Elsewhere
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IF7. On a normal dive trip, what do you usually catch? (Fill in the names and numbers or kg per size class and per fishery) (use size charts)

Species / name	Tick ✓	Total #/trip	Avg Size (cm)	Total kg/trip	Used for			
					Consumption	Gift	Sale	
							In Village	Elsewhere
Beche-de-mer	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MoP (trochus)	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lobster	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (clams, octopus)	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IF8. Which preservation method do you use for your catch? (Tick ✓ boxes)

None

Species	Fresh/meat	Dried	Shell	Smoked	Specify:
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Thank you !!

Key Informant Survey

Target group: Key informants (men and women) in the community(ies) (for example, chiefs, village elders, priests, spokespersons, community leaders, leaders of women’s and youth groups) who have a good insight into the general perceptions and attitudes of marine resource use and management

Objective to To learn about: locations and names of fishing grounds; management rules (known and applied); major recurrent problems related to marine resource management in the community;



selected information on marketing and costs; vernacular names; seasonality of species.			
Island:		Village:	
Latitude (DD):		Longitude (DD):	
Surveyor 1:		Surveyor 2:	
Date:		Survey ID Number:	
Person interviewed (confidential, names will not be published)			
First name:		Last name:	
Date of birth:		Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
K1. Record the areas and names of fishing grounds used by the community	<i>Prepare a map of the area, or use a nautical chart if available. Indicate areas, places and names of fishing, diving and gleaning grounds used.</i>		
K2. Who owns the reefs and fishing grounds?	<input type="checkbox"/> Community		
	<input type="checkbox"/> Open access		
	<input type="checkbox"/> Individual ownership		
	<input type="checkbox"/> Jointly owned with other villages, list names of villages: _____		
K3. Are the fishing grounds in this village used by other villages?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, who uses them? (List names of other villages)	1		
	2		
	3		
	4		
K.4 Are the people in your village aware of the regulations issued by the Department/Ministry of Fisheries?	<input type="checkbox"/> Yes ↓		<input type="checkbox"/> No
	<input type="checkbox"/> Mostly		
	<input type="checkbox"/> Sometimes ↓		
	<input type="checkbox"/> Not really ↓		
And do they comply with the regulations?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
If they do not comply with the regulations, why not?			
K.5 Has this community made its own rules and regulations (including customary rules)?		<input type="checkbox"/> Yes ↓	<input type="checkbox"/> No
If yes, what are they?			
K6. Does the community respect these rules and regulations?		<input type="checkbox"/> Yes	<input type="checkbox"/> No ↓
If not, why not?			



K7. If the fishing grounds are used by fishers from other villages, do these other fishers respect the government regulations and/or community rules?				<input type="checkbox"/> Yes	<input type="checkbox"/> No ↓
If not, why not?					
K8. Do people sell their catch in the community?				Yes ↓	No
Reef and lagoon fish				<input type="checkbox"/>	<input type="checkbox"/>
Invertebrates				<input type="checkbox"/>	<input type="checkbox"/>
If Yes, for what price?					
Type	Name	Price/unit	Units (e.g. kg, piece)		
Fish		\$			
Fish		\$			
Invert		\$			
Invert		\$			
		\$			
		\$			
		\$			
K9. Conversion of local units in kg (Information on local units may be provided by key informant(s); however, corresponding weight in kg may require sampling in the field)					
Type	Name	Local Unit	Avg Weight kg		
Fish					
Fish					
Invert					
Invert					
K10. List of seasonal reef and lagoon finfish species usually caught					
Local / common Name	Scientific name	Most abundant months:			
		Start month		End month	
K11. List of seasonal reef and lagoon invertebrate species usually caught					
Local / common Name	Scientific name	Most abundant months:			
		Start month		End month	



E. Conversion of local invertebrate units to weight (kg)

Species	Processing*	Local unit**	Average weight (kg)

* Processing level refers to: unprocessed (alive, such as crab or lobster), with shell or shelled, gutted (bêche-de-mer), cooked, dried, etc. ** Heap, bag, string, bottle, sack, basket, bucket, etc.

F. Seasonality of finfish species

Local / common Name	Scientific name	Most abundant months:	
		Start month	End month

G. Seasonality of invertebrate species

Local / common Name	Scientific name	Most abundant months:	
		Start month	End month

H. Local, common and scientific names for reef and lagoon species (new names)

Local name	Common name(s)	Scientific name(s)

I. Any other notes or comments?

Thank you



7.5 SPC Seafood Poisoning Report Form (SPC)



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 <input type="checkbox"/>	Patch reef <input type="checkbox"/>	Salted <input type="checkbox"/>	Liver <input type="checkbox"/>	
Gastropod <input type="checkbox"/>	Lagoon <input type="checkbox"/>	Dried <input type="checkbox"/>	Roe <input type="checkbox"/>	How many others: Ate this meal?
Bivalve <input type="checkbox"/>	Outer reef <input type="checkbox"/>	Smoked <input type="checkbox"/>	Other <input type="checkbox"/>	
Other mollusc <input type="checkbox"/>	Ocean <input type="checkbox"/>	Pickled <input type="checkbox"/>	Specify:	Felt sick?
Specify:	Other <input type="checkbox"/>	Other <input type="checkbox"/>	Specify:	Were admitted to hospital?
Unknown <input type="checkbox"/>	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.



7.6 Creel Survey (SPC)



Tuvalu Fisheries Creel Survey Data Sheets

Use ONE sheet for each landing met (replicate). This can be a boat or catch basket brought in by gleaners etc. Note that this is presented by slice, to show all the data so you can choose which parts of the information you want to collect.

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.e. exclude closed months)		months fished	
What fishing methods do you usually use (over the last year)?		Method 1:	
Method 2:		Method 3:	
Method 4:		Method 5:	
Where else do you land your fish? What other locations? (List by priority and use map)			
Most often	#	Location	# trips/month
↓	1		
	2		
	3		



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):			
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



7.7 LMMA/MPA



Tuvalu Fisheries Survey Data Sheets

Community Feedback on LMMA/MPA		
Target Group:	Island Community	
Island:	Date:	
Latitude (DD):	Longitude (DD):	
Surveyor 1:	Surveyor 2:	
Village/Community:	# Males:	# Females:
General Information		
1. Is there an existing LMMA/MPA on this island?	<input type="checkbox"/> Yes (↓Q2)	<input type="checkbox"/> No (↓Q3)
2. If Yes, what were the reasons for establishing one?		
3. If No, why not?		
4. Who were the people involved in deciding about an LMMA/MPA?		
If no LMMA/MPA stop here		
5. If you have an LMMA/MPA, how was its size and location selected?		



6. Are there any rules, regulations or other for controlling your LMMA/MPA?			<input type="checkbox"/> Yes (↓Q7)	<input type="checkbox"/> No (↓Q8)
7. If Yes, who was involved in formulating the rules?				
8. If Yes, What kind of regulatory system do you have in place?				
9. If No, how do you manage your LMMA/MPA?				
9a. Collect a copy of any by-laws, rules or other system; or write a detailed description of how it is run.				
Document	Copy collected?			
	Yes	No		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
10. What are the benefits of the LMMA/MPA on this island?				



11. Are there any issues or problems with your LMMA/MPA?		
<input type="checkbox"/> Yes (↓Q12)	<input type="checkbox"/> No (↓Q15)	
12. If Yes, what are the issues or problems?		
13. How could the issues or problems be addressed?		
14. What, if anything, would you change about your LMMA/MPA?		
15. What role, if any, could Fisheries play to help with your LMMA/MPA?		
16. Any other suggestions or comments?		
THANK YOU		



Comments and observations				



8 Appendix: Current draft of MOU for FADs

PEIGA, TAUSIGA MOTE FAKATUMAUGA O POE FAKALATA IKA SE FAKATOKAGA IO MESE FEAGAIGA (MOA) ITE VASIA OTE KAUPULE, FAKAPOTOPOTOGA TAGATA FAIKA O MOTE MALO.

E ATAFIAGINA me i poe fakalaika ka fesoasoani malosi ki tagata faika pena foki tino ote fenua i te fakamauaga mote fakafaigofiega te sala o ika pela mo atu, kasi/tavatava, takua mo nisi ika aka foki, fakafolikiga a te fakamaumau o penitini kae fakamama foki a te faika i koga tai pili ote fenua;

E ATAFIAGINA FOKI ite fakamauaga, faitega mote peiga ote POE fakalata ika e se faigofie tusa ko mea ne fakaoga kite faitega, peofuga o tino mote togi ote vaka, pooti ne aofia i te peiga;

E AMANAIAGINA i te MALO fakatasi foki mo taugasoa fesoasoani e se mafai o fakatumau a te fesoasoani ki te fakamauaga o POE, vagana ke isi ne fakamaoniga e iloa i ei a te aoga mote fesoasoani o POE i feitu tau sene, kae ke maua foki se fakamapatonuga me ka se afaina a sose POE pogai mai te fakamasei o te kope io me kote tuku tiakina;

E MALAMALAMA foki ite Tulafono mo Maumea ote Tai e fakatapu ne ia a mea konei - te fakamasei, kaisoa io me sai (o se paopao, pooti, foulua) ki luga i te POE, kae e fakasala foki ne ia sose tino e soli ne ia ate tulafono ki sala e aofia – togi tupe kise aofaki e mafai o oko kise \$5,000, 3 masina ite falepuipui, io me togi tupe (pau mote togi ote POE katoa) kite malo;

E ATAFIAGINA KAE AMANAIAGINA FOKI ate tusaga fesoasoani ote NAPA 2 ki fenua tela ka aofia e 4 POE fakalata ika ka pei i loto i te 4 tausaga ote polotieki (2015-2018);

MAI POGAI KONEI MAI LUGA, a te Fakapotopotoga Tagata Faika mote Kaupule o mote Malo (auala ite matagaluega Faika o Tuvalu) ko talia kae lotofiafia ki fakanofoga konei e fakaasi mai lalo;

FAKAMAUAGA MOTE PEIGA O POE

1. Ate matagaluega faika ote malo ka fesoasoani kite fenua ite fakamauaga pena foki mote peiga o POE aofia i ei a POE kola ka fakamaua mai lalo ote NAPA;
2. Ate matagaluega faika ka fai ne ia se akoga mo tagata faika ote fenua kite fakapikipikiga pena foki mote peiga o POE mote taimi muamua.
3. A te fakapotopotoga faika ote fenua ka panaki mote fakapikiga mote peiga o sose POE faopoopo mai tua o te akoakoga tenei.
4. Ate fakapotopotoga tagata faika ote fenua mote matagaluega ke galue ke maua ne sene mo togi ne POE faopoopo pena foki mote tausiga o POE ko oti ne pei fakatasi mo poe e 4 ote NAPA konei ka fakatautau ke pei;
5. Ate fakapotopotoga tagata faika ote fenua ke fakapatonu a kogakoga kola ka pei ki ei a sose POE fou kae ke sokotaki foki kite matagaluega faika fakatasi mote matagaluega o vaka koi tuai o pei a te POE;

TAUPULEGA, TAUSIGA MOTE ONOONOGA

6. Ate kope tenei ia te fenua (Falekaupule) kae kote te tausiga mote fakaogaaga o te kope e nofo mote fakapotopotoga tagata faika fakatasi mote Kaupule.
7. Ate Falekaupule ke fakatoka ne ia ne aofaga ko tino ote fenua ke ususi tai ki fakanofoga o POE fakalata ika. Kote fakapotopotoga faika MOTE Kaupule ote fenua ka onoono kite fakamalosiga o tulafono mo POE mo nisi fakanofoga faopoopo kola ko oti ne pasia nete falakaupule;



8. Ate fakapotopotoga faika ote fenua ka fai ne ia ne asiasiga fakatumau ki POE fakalata ika kae fai foki a galuega e fakatau ifo e tau ke fai. Konei mea e manakogina ke fai I asiga takitasi,
 - a. Asi a launiu – sai mafai ko galo
 - b. Asi a te mata ote loopu tela i tou – toe sai mafai a poe ko tai too
 - c. Asi ate soko – mafai e mafai, sui ate uka tela ki luga mafai ko kaina ate loopu
 - d. Lipooti tala ote asiga kite matagaluega faika
9. A te Kaupule ke fesoasoani kite fakapotopotoga tagata faika i te fakatupega ote galuega asiasi ki POE fakalata ika pena foki mote fakamauaga o POE fou manafai ko manakogina.

FAKAMAUGA O IKA MAUA MAI POE

10. Ate fakapotopotoga faika ote fenua ke galue tasi mo tino fakamau ika i luga i te fenua kite fakamauaga o mea konei -
 - a. Aofaki o ika (I vaega kesekese) ne maua i POE
 - b. Te ioga ote faiva ne fai, aso mote po masina
 - c. Te aofaki mo igoa o tino ne olo ite faiva
 - d. Te koga ne faika I ei mote leva ote faikaga
 - e. Mo nisi mea aka foki

TALA O ASIASIGA FAKATASI MO TULAGA FAKAMASEIGINA O SOSE POE

11. Fakapotptoga tagata faika ke avaka se lipooti kite Kaupule i sose taimi e fai ei ate asiasiga.
12. Ate Kaupule ke fakaokooko a tala o asiasiga o POE kite matagaluega faika fakatasi ite 3 masina. Te lippoti tenei ke aofia te aofaki o taimi ne asiasi mo galuega ne fai ki POE (mafai e isi).
13. Te Kaupule ke lipooti fakavave kite matagaluega faika mafai ko isi se fakalavelave ko tupu kite POE
14. Matagaluega faika ka fai ne ia se sukesukega mafai ko isi se POE ko lipooti mai me ko galo ko te mea ke maua se tala maea kite pogai ne galo I ei
15. Kafai ate POE ne fakamaseigina, ke fakasala eiloa a tino io mese fakapotoptoga tela/kola ne aofia ite fakamaseiga ote POE.

FAKALAUSAGA TE ILOA O TINO

16. A te matagaluega faika ka fai ne ia ne polokalame ko te mea ke avaka te iloa o tino ote atufenua i POE fakalata ika, te taua/aoga, tausiga, koga e pei i ei mo nisi mea aka.
17. Ate matagaluega faika ke fakailoa kite matagaluega o vaka a kogakoga o POE fakalata ika o fenua katoa