



## Tebwanga Maiaki Fisheries Management plan

**Vision:** 7 to 10 years from now, Tebwanga Maiaki from Abemama will be commonly known for cleanliness, peace and wealthy living from its marine resources and will be attractive by tourists so that can bring prosperity to I-Tebwanga Maiaki.

This management plan was developed by members of Tebwanga maiaki for the overall benefit of the people of Tebwanga Maiaki through a well- managed and sustained adjacent coastal marine resources. The development of the initial draft of the management plan was facilitated by Toaiti Vanguna (Nei Tengarengare CBFM), Rutiana Teibaba (Fisheries Assistant Trainee)

The finalization of the management plan was facilitated by Toaiti Vanguna (Nei Tengarengare CBFM), Mwatereti Buren (Fisheries Assistant Trainee), Ueakeia Tofinga (GIS officer), and Miriam Bwarai (FA, Abemama)

## Content Page:

1.0	Background of the management plan .....	3
2.0	Statement of endorsements .....	4
<b>3.0</b>	<b>Fisheries management plan</b>	
3.1.0	Application of the plan .....	5
3.2.0	Objectives of the plan .....	5
3.3.0	<b>Theme 1: Recovering the health of finfish fisheries in Tebwanga Maiaki:</b>	
3.3.1	<b>Target 1: Banning of fishing during the spawning seasons of Bonefish, Silver biddy and Goatfish .....</b>	5
3.3.2	<b>Target 2: Banning of destructive fishing methods .....</b>	5
3.3.3	<b>Target 3: Banning of destructive fishing gears .....</b>	5
3.4.0	<b>Theme 2: Special management of Octopus and Silver biddy</b>	
3.4.1	<b>Target 1: Management rules for the Octopus .....</b>	5
3.4.2	<b>Target 2: Management rules for the Silver biddy .....</b>	5
3.5.0	<b>Theme 3: Management of Marine managed area</b>	
3.5.1	<b>Target 1: Managed area for Ark shells .....</b>	6
3.5.2	<b>Target 2: Management rules for Aan te marae managed area .....</b>	6
3.6.0	<b>Theme 4: Maintaining coastal and marine cleanliness</b>	
3.6.1	<b>Target 1: Management rule for non-biodegradable wastes .....</b>	6
3.6.2	<b>Target 2: Management rules for open defecation .....</b>	6
3.7.0	<b>Monitoring and Enforcement Strategies</b>	
i.	Monitoring .....	6
ii.	Enforcement .....	6
iii.	Reporting .....	6
iv.	Responsible of the island council speedboat and Village boat in patrolling ...	6
v.	Fines and Penalties .....	6
3.8.0	<b>Management plan review .....</b>	6
<b>Annex 1:</b>	<b>Names of members of Tebwanga Maiaki village .....</b>	7
<b>Annex 2:</b>	<b>Schedule 1 (as per the Fisheries Regulations 2019) .....</b>	8
<b>Annex 3:</b>	<b>Schedule 2 (as per the Fisheries Regulations 2019) .....</b>	9
<b>Annex 4:</b>	<b>Map of marine managed area in Tebwanga Maiaki .....</b>	10
<b>Annex 5:</b>	<b>Coordinates for Tebwanga Maiaki Fisheries Management plan .....</b>	11

## 1.0 Background of the management plan:

This management plan was initially developed and endorsed in November 2020 by members of Tebwanga Maiaki village for the entire people of Tebwanga Maiaki. The development of this management plan is a consolidation of ideas and concerns through a series of consultations held prior to the finalization and endorsement of the plan. A large number of communities were involved in the preparation of the plan and some of the members are listed in Annex 1.

Tebwanga Maiaki became an established incorporated coastal community in \_\_\_\_\_ pursuant to the Incorporated Societies Act 2002 and includes among its purposes, the purpose of participation in the conservation, management and protection of marine resources in adjacent coastal areas.

The finalization of the management plan was conducted in November, 2020 for the villagers of Tebwanga Maiaki to make good decisions on managing their adjacent coastal resources and to make necessary changes with requirements as per the Fisheries (Conservation and Management of Coastal Marine Resources) Regulations 2019.

This management has the full support of the entire people of Tebwanga Maiaki (see Section 2 statement of Endorsement)

Abemama Council has given support and endorsement for this management plan (see Section 2, statement of endorsement by the island Council).

A statement of endorsement by the Minister of Fisheries and Marine Resources Development is provided in Section 2.

This is a duly endorsed plan by the village of Tebwanga Maiaki, the Island Council of Abemama and the Ministry of Fisheries and Marine Resources Development.

## 2.0 Statements of Endorsement:

### 2.1 Tebwanga Maiaki Village statements of endorsement:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

### 2.2 Abemama Island Council Statements of endorsement:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

### 2.3 Ministry for Fisheries and Marine Resources Development statements of endorsement:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

### 3.0 Fisheries Management Plan:

#### 3.1.0 Application of the plan:

This management plan applies from the land down to both lagoon and ocean side. Special marine managed area where specific rules apply are provided in the map. The land boundary was from the last household in the North to the last household in the South of Tebwanga Maiaki village.

#### 3.2.0 Objectives of the plan:

The general objective of this plan is to ensure the sustainability of the coastal marine resources of Tebwanga Maiaki through well managed fishing and non-fishing practices for the wellbeing of the current and future generation of Tebwanga Maiaki and Abemama as a whole.

The specific objectives of the plan are as follows:

- ❖ Healthy and Wealthy of all marine resources of Tebwanga Maiaki
- ❖ Restore the health and abundance of all Tebwanga Maiaki finfishes and marine invertebrates
- ❖ Ensure clean coastal and marine environment.
- ❖ To enhance opportunities and benefits to Tebwanga Maiaki villagers from their recovering coastal resources.

#### 3.3.0 Theme 1: Recovering the health of finfish fisheries in Tebwanga Maiaki:

**3.3.1 Target 1:** Banning of fishing during the spawning seasons of Bonefish, Silver biddy and Goatfish.

**3.3.1.1** No one shall fish for Bonefish, Silver biddy and Goatfish during the spawning times outlined below:

- i. Three (3) days before full moon
- ii. During the full moon
- iii. Three (3) days after full moon

**3.3.2 Target 2:** Banning of destructive fishing methods

- i. Water splash fishing is prohibited
- ii. Encircling of coral reef fishing is prohibited

**3.3.3 Target 3:** Banning of destructive fishing gears

- i. The use of small mesh gillnet (less than 2.5 inches) is prohibited (refer to schedule Annex 2 for instruction of mesh size measurement).

#### 3.4.0 Theme 2: Special management of Octopus and Silver biddy

**3.4.1 Target 1:** Management rules for the Octopus

- i. No one shall destroy the hole of octopus

**3.4.2 Target 2:** Management rules for the Silver biddy

- i. No one shall fish for undersized Silver biddy below 15cm (See Annex 2 for instructions of measurement as per the Fisheries Regulations 2019)

### 3.5.0 Theme 3: Management of Marine managed area

#### 3.5.1 Target 1: Managed area for Ark shells

- i. No one shall take, harvest or catch the Ark shells in the designated area (See map in Annex 4)

#### 3.5.2 Target 2: Management rules for Aan te marae managed area

- i. No one shall enter, fish, drift and swim in the designated area (See map in Annex 4)

### 3.6.0 Theme 4: Maintaining coastal and marine cleanliness

#### 3.6.1 Target 1: Management rule for non-biodegradable wastes.

- i. No one shall dump or throw non-biodegradable wastes on beaches and in the sea

#### 3.6.2 Target 2: Management rules for open defecation

- i. Defecation on the beach or in the bushes is prohibited

### 3.7.0 Monitoring and Enforcement Strategies:

- i. Monitoring of the management plan will be carried out by the following people; Special constable, CBFM committee, Fisheries Assistant and Fisheries Extension Assistant.
- ii. Enforcement of the management plan will be carried out by Special constable, Fisheries Assistant and Fisheries Extension Assistant.
- iii. Reporting on the enforcement and monitoring activities; report will be made on the progress of enforcement and monitoring by the CBFM committee during the Village forum every middle of the third month (March, June, September and December)
- iv. The Village boat can be used to monitor and conduct surveillance in the managed area and the Island council speed boat can be used to monitor and conduct surveillance for any observed illegal fishing.
- v. Illegal fishing cases will be discussed during the village meeting for the fines or penalties listed below;
  - i. Confiscation of fishing gears
  - ii. \$300 of fine for fishers from outside
  - iii. \$100 of fine for members of Tebwanga maiaki village
  - iv. All fines and penalties should be paid during the 2 weeks after confirmation on committing the offence.

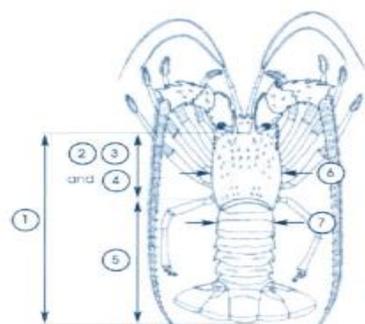
### 3.8.0 Management plan review

The plan shall be revised every five (5) years or when the Minister considers necessary upon the advice of the Director and of the community involved. Any amendments to the plan shall be endorsed by the community involved and approved by the Minister in writing.

## Annex 1: Names of members of Tebwanga Maiaki village

<b>Men</b>	<b>Women</b>
Mweea Bokai 27	Rerenga Ionatan 27
Maeke Takaria 35	Akata Katangaua 36
Tikanikan Takaiti 25	Tiibora Tekirawa 37
Taaram Otian 32	Kaeman Kaboriba 47
Kiteon Amoro 28	Tebura Katangaua 52
Bwaati Tabao 34	Buka Tabukia 62
Teibi Erene 54	Aana Bokai 36
Baiteke Tawaia 60	Eretii Tukaong 43
Mwakinton Tauko 45	Temwari Tekaiwa 39
Tabwaia Iotebwa 35	Kamoroa Koururu 43
Taaburi Taonna 45	Monika Mweea 26
Tooti Tamaroa 40	Ruuti Abwakin 42
Baiteke Tawaia	Tereaa Tawaia
Abwakin Ebwati	Riarake Tarake
Tebenea Kaotirake	Motite Nanotaake
Kanawa Itinibwara	Tiritoa Tooti
Eritai Matia	Tirikau Ieuoua
	Tuarere Etuati

## Annex 2: Schedule 1 (as per the Fisheries Regulations 2019)



1. from the front edge of the carapace to the rear edge of the telson
2. carapace length
3. from the midline behind the rostral horns to the rear edge of the carapace
4. from the base of the supra orbital spines to the end of the oesophothorax
5. tail length
6. carapace width
7. tail width between the lateral notches of the first tail segment

Fig. 1 Rock Lobster carapace length

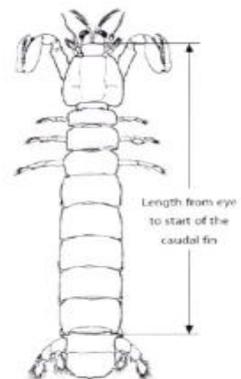


Fig. 2 Mantis shrimp

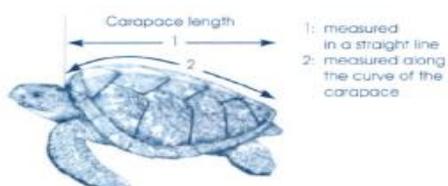


Fig. 3 Turtle carapace length

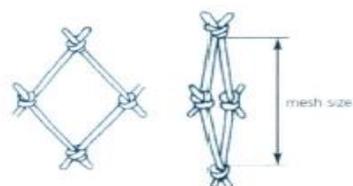
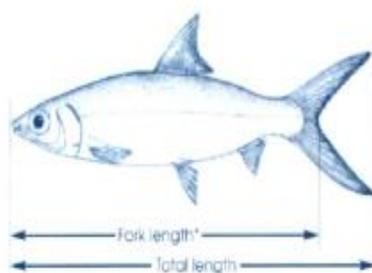
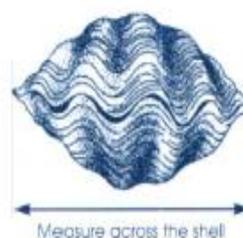


Fig. 4 Stretched mesh size



\* or measure taken at the middle of the tail

Fig. 5 Finfish fork and total length



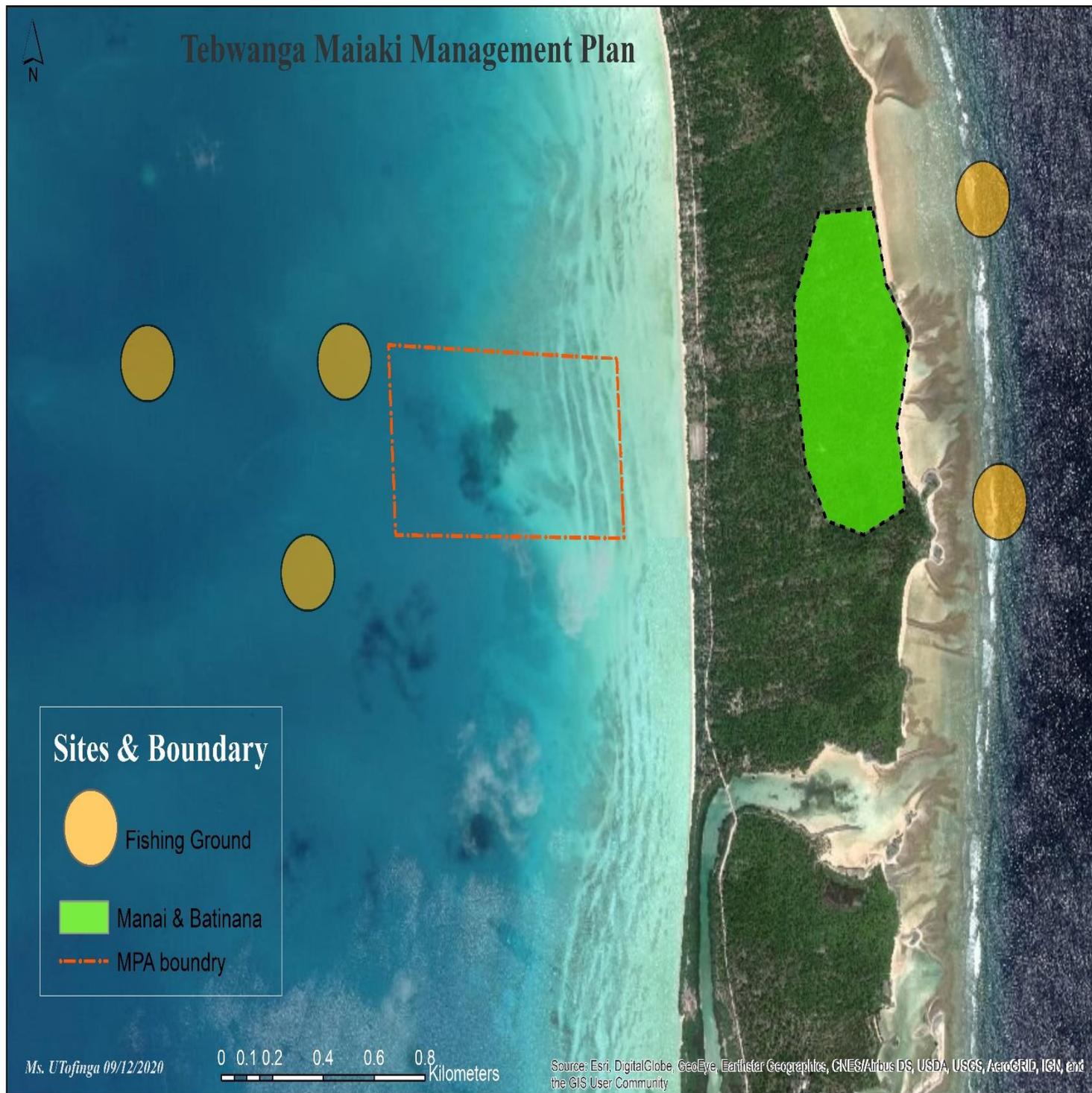
Measure across the shell

Fig. 6 Bivalve total length

## Annex 3: Schedule 2 (as per the Fisheries Regulations 2019)

Goatfish ( <i>Upeneus taeniopterus</i> )	Maebo	Minimum fork length 20 cm	Three (3) days before and three (3) days after new moon
Exocoetidae (flying fish)			
Flying fish ( <i>Cypselurus suttoni</i> )	Onauti	Minimum fork length 20 cm	Three (3) days before and three (3) days after new moon
<b>2. INVERTEBRATES</b>			
Bivalves (ark, clams)			
Ark shell <i>Anadara sp.</i>	Te bun	Minimum size 4 cm	Director to declare closed season and areas.
Clam ( <i>Tridacna maxima</i> )	Were	Minimum size 15 cm	Director to declare closed season and areas.
Clam ( <i>Tridacna squamosa</i> )	Were	Minimum size 20 cm	Director to declare closed season and areas.
Giant clam ( <i>Tridacna gigas</i> )	Kima	Total ban	Special protection warranted
Crustaceans			
Rock lobster ( <i>Panulirus sp</i> )	Nnewe	Minimum carapace length 8.5cm from front edge of carapace to rear edge of carapace	Director to declare closed season
Mantis shrimp <i>Lysiosquilla maculate</i>	Waro	Minimum size 18cm measured from eye to start of caudal fin	Director to declare closed season
<b>3. SEA TURTLES</b>			
Green Turtle ( <i>Chelonia mydas</i> )	Te On	Minimum carapace length 86cm	Director to declare closed season
Hawksbill Turtle ( <i>Eretmochelys imbricate</i> ) (not fit for consumption)	On-tabwakea	Minimum carapace length 68cm	Director to declare closed season

Annex 4: Map of marine managed area in Tebwanga Maiaki



## Annex 5: Coordinates for Tebwanga Maiaki Fisheries Management plan

Lat	Lon	ID
0.35975	173.94163	108
0.35963	173.93974	109
0.35748	173.93888	110
0.35550	173.93897	111
0.35340	173.93927	112
0.35198	173.94004	113
0.35164	173.94133	114
0.35228	173.94279	115
0.35336	173.94271	116
0.35431	173.94251	117
0.35532	173.94275	118
0.35633	173.94294	119
0.35712	173.94262	120
0.35785	173.94213	121
0.35927	173.94180	122
0.35975	173.94163	108