



# **TONGA NATIONAL TUNA MANAGEMENT AND DEVELOPMENT PLAN**



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## CONTENTS

Definitions:.....	3
Abbreviations: .....	4
<b>PART I – INTRODUCTION .....</b>	<b>5</b>
A. Policy statement .....	5
B. The purpose of the Management and Development Plan for the Tuna Fishery .....	5
C. Scope of the Plan .....	5
<b>PART II - MANAGEMENT FRAMEWORK.....</b>	<b>7</b>
A. Brief description of the resources .....	7
B. History of the Tongan tuna fishery .....	7
<b>PART III – CONSERVATION AND MANAGEMENT OF THE TUNA FISHERY .....</b>	<b>9</b>
A. Objectives .....	9
B. Goals .....	9
C. FAO Code of Conduct for Responsible Fisheries .....	9
D. Strategies to achieve goals .....	10
<b>CONSERVATION AND MANAGEMENT.....</b>	<b>10</b>
<b>1. Sustainability of the tuna resources.....</b>	<b>10</b>
1.1 Regulation of fishing activity .....	10
1.1.1 Longline fishery .....	10
1.1.2 Surface fishery .....	12
1.1.3 Other methods of fishing .....	13
1.1.4 Declaration of Exclusive Economic Zone .....	13
1.2 Precautionary approach.....	13
1.3 Scientific research and data collection .....	13
1.3.1 Logbook data.....	13
1.3.2 Observers .....	14
1.3.3 Port Sampling Programme .....	14
1.3.4 Regional cooperation in scientific research .....	14
1.4 Regional and international cooperation.....	14
1.5 Research and exploratory fishing.....	15
1.6 Related fishing activities .....	16
1.7 Monitoring, Compliance and Surveillance.....	16
1.7.1 Licensing conditions .....	16
1.7.2 Vessel monitoring system .....	18
1.7.3 Observers .....	18
1.7.4 Aerial and surface patrols.....	18
1.7.5 Cooperative regional arrangements .....	18
<b>2. Minimise adverse impacts of fishing on marine environment and bycatch species.....</b>	<b>18</b>
2.1 Bycatch and non-target species .....	18
2.1.1 Provision of information .....	18
2.1.2 Release of certain species.....	19
2.1.3 Fish aggregating devices .....	19
2.2 Marine pollution from tuna fishing vessels .....	19
<b>ADMINISTRATIVE PROCEDURES IN SUPPORT OF THE OBJECTIVES OF THE TUNA PLAN.....</b>	<b>20</b>
<b>3. Effective and efficient administration of the tuna fishery .....</b>	<b>20</b>
3.1 Ministry of Fisheries .....	20
3.2 Cooperation and co-ordination with other Government departments.....	20
3.3 Consultative and advisory structure .....	20
3.3.1 Tuna Consultative Committee.....	20
3.3.2 National Monitoring, Control and Surveillance Committee .....	21
3.4 Reporting procedures against the Plan .....	22
<b>4. Review procedures for certain strategies under the Tuna Plan .....</b>	<b>22</b>
4.1 Harvest target levels / TACs and levels of fishing effort .....	22
4.2 Licence fees and charges.....	23

<b>PART IV – DEVELOPMENT OF THE TUNA INDUSTRY .....</b>	<b>24</b>
<b>FULFILL ECONOMIC POTENTIAL.....</b>	<b>24</b>
<b>5. Further development of the domestic tuna industry .....</b>	<b>24</b>
5.1 Investment policies .....	24
5.1.1 Foreign investment.....	24
5.1.2 Credit.....	24
5.2 Infrastructure.....	24
5.3 Training and education.....	25
5.4 Enhanced fleet opportunities.....	25
5.4.1 Fleet characteristics.....	25
<b>6. Increase revenue generated from the tuna fishery .....</b>	<b>25</b>
6.1 Domestic licence fees and charges.....	25
6.2 Foreign access fees.....	25
6.3 Foreign exchange earnings.....	25

**DEFINITIONS:**

For the purposes of this Tuna Management Plan, the following terms have the definitions given below:

<b>Exploratory and / or test fishing</b>	Any fishing operation undertaken, with the approval of the Secretary, over a limited period of time for the purpose of investigating the feasibility of commercial fishing operations in regard to a particular area, species and / or fishing method.
<b>Fishing year</b>	Calendar year 1 January to 31 December
<b>Foreign company or fishing association</b>	A company or association that is not Tongan company or a foreign-owned local company.
<b>Foreign Fishing Vessel</b>	A fishing vessel that is not registered in Tonga nor qualifies as a locally based foreign fishing vessel.
<b>Foreign-owned local company</b>	A company that it not a Tongan company, has limited or no local equity, but is incorporated and established in Tonga.
<b>Local Fishing Vessel</b>	A fishing vessel that is registered in Tonga, wholly owned by the Government of Tonga, by a public corporation, by one or more Tonga subjects, or by a Tongan company
<b>Locally-based Foreign Fishing Vessel</b>	A fishing vessel that is not a local fishing vessel but which is based in Tonga, lands all its catch in Tonga and operates under joint venture, charter or lease agreement with (1) a Tongan company or (2) a foreign owned local company or (3) the Government of Tonga.
<b>Regional Register</b>	The <i>Regional Register of Foreign Fishing Vessels</i> maintained by the South Pacific Forum Fisheries Agency.
<b>Secretary</b>	Secretary of the Ministry of Fisheries or his / her appointed designate
<b>Sports Fishing Vessel</b>	A vessel operated commercially for the purpose of sportsfishing charters
<b>Tongan company</b>	A company that is either wholly owned by any company, society or other associations of persons incorporated or established under the laws of Tonga of which at least 51% of the voting shares are owned by Tongan subjects
<b>Transhipment</b>	Means the removal of any or all of the fish on board a licensed fishing vessel onto another vessel.
<b>Highly Migratory Tuna Stocks</b>	All tuna species specified under Annex I of the Law of the Sea Convention, 1982, including: <ul style="list-style-type: none"> <li>• Albacore, <i>Thunnus alalunga</i></li> <li>• Yellowfin tuna, <i>Thunnus albacares</i>,</li> <li>• Bigeye tuna, <i>Thunnus obesus</i> or</li> <li>• Skipjack, <i>Katsuwonus pelamis</i></li> </ul> <p style="text-align: right;"><i>continued.....</i></p>

And:

any other tuna species as may be determined by the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific.

**Vessel Monitoring System**

The system employed by the Pacific Island States and coordinated by the Forum Fisheries Agency to monitor the position and activities of fishing vessels for the purposes of the effective management of fisheries.

**ABBREVIATIONS:**

<b>EEZ</b>	Exclusive Economic Zone
<b>FAD</b>	Fish Aggregating Device
<b>FAO</b>	Food and Agriculture Organisation of the United Nations
<b>FFA</b>	Forum Fisheries Agency
<b>HACCP</b>	Hazard Analysis at Critical Control Points
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78)
<b>MCS</b>	Monitoring, Control and Surveillance
<b>Niue Treaty</b>	The Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region
<b>OFF</b>	Oceanic Fisheries Programme
<b>SPC</b>	Secretariat of the Pacific Community
<b>STCW</b>	Seafarers Training Certification and Watchkeeping Convention
<b>TAC</b>	Total Allowable Catch
<b>TCC</b>	Tuna Consultative Committee
<b>US Multilateral Treaty</b>	<i>The Treaty on Fisheries between the Governments of Certain Pacific Island States and the Government of the United States of America.</i>
<b>VMS</b>	Vessel Monitoring System



## PART I – INTRODUCTION

### A. Policy statement

With the development of local fishing capacity to catch and export the major tuna species the need for a proper management plan under which the fishery potential of the Kingdom is developed has become a priority for the Ministry and the private sector. The best resource estimates confirm that a viable, sustainable industry can be developed in Tongan waters. Given the highly migratory nature of tuna, the national plan will need to take into account management considerations that will apply to our neighbouring states and the wider region of the western and central Pacific fishery.

The tuna plan will be the first in a series that will eventually cover the important marine resources of the Nation. As such it will be a pioneering effort in fisheries co-operation to provide the enabling background for the orderly development of the fishery. Appropriate strategies will need to be developed to allow proper management of the fishery in a climate of mutual co-operation and support and within the resources available. New structures are envisaged to allow appropriate consultations at all levels. The roles and the areas of responsibility of each sector will be better defined so that all might work towards a common purpose.

For the plan to work all must give a level of commitment that is commensurate with the challenges and the likely rewards. The plan must be dynamic, subject to constant scrutiny and review so that the goals and objectives set are achieved in an appropriate time frame.

### B. The purpose of the Management and Development Plan for the Tuna Fishery

Consistent with Part II Section 3 of the *Fisheries Act 1989* the purpose of the Management and Development Plan for the Tuna Fishery ('the Tuna Plan') is to establish:

- objectives and strategic direction for the conservation and management of tuna resources and the fulfillment of the economic potential of the tuna fishery;
- clear and transparent rules for licensing, monitoring, and regulating fishing activities in Tonga's fisheries waters;
- guidelines for decision-making, consultation and administration in regard to the tuna fishery; and
- measures for tuna conservation and management at the national level that are compatible with those established both regionally and internationally.

### C. Scope of the Plan

1. The species covered by this Tuna Plan include:
  - a) all highly migratory tuna species<sup>1</sup>; and
  - b) all other non-target, associated or dependent species taken in the course of fishing for tuna.
2. The Tuna Plan applies to all activities by way of "fishing" as defined in the *Fisheries Act 1989*, including:
  - a) test fishing operations;
  - b) marine scientific research fishing;

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<sup>1</sup> The four key tuna species are albacore, bigeye, yellowfin and skipjack. Conservation, management and development strategies under the Tuna Plan will concentrate on these key species.

- c) commercial fishing;
  - d) commercial sport fishing;
  - e) artisanal fishing
  - f) subsistence fishing; and
  - g) recreational fishing.
3. The area of waters covered by this Tuna Plan includes all Tonga's "fisheries waters"<sup>2</sup>, including:
- a) internal waters;
  - b) territorial waters;
  - c) offshore waters; and
  - d) such other waters over which the Kingdom of Tonga from time to time claims sovereign rights or jurisdiction with respect to the marine living resources by legislative enactment or by Royal Proclamation.
4. This Plan covers:
- a) all methods of fishing for tuna, including but not necessarily limited to:
    - i) longlining;
    - ii) trolling;
    - iii) pole-and-line;
    - iv) purse seining;
    - v) mid-water trawling;
    - vi) droplining; and
    - vii) handlining or single line fishing.
  - b) all related activities, including but not necessarily limited to:
    - i) transshipping;
    - ii) use of fish aggregation devices;
    - iii) bunkering;
    - iv) bait fishing;
    - v) aircraft support operations;
    - vi) provisioning; and
    - vii) all other services relating to the tuna fishery, including on-shore processing and provision of port facilities.



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<sup>2</sup> An urgent strategy under the Tuna Plan will be to define Tonga's Exclusive Economic Zone (see subsection 1.1.4).

## PART II – MANAGEMENT FRAMEWORK

### A. Brief description of the resources

#### *National*

The tuna resources occurring within the approximately 700,000 km<sup>2</sup> of Tonga's fisheries waters offer moderate potential for exploitation. The resource of deep-swimming tunas accessible to longline gear is dominated by albacore tuna (70-80%), with smaller quantities of yellowfin and bigeye tuna, and is available year-round. Surface tunas (skipjack and yellowfin) occur more seasonally in Tongan waters and are currently not exploited to any degree.

A range of other species occurs with the tunas, including billfish, mahi mahi, opah, wahoo and sharks. These species are commonly taken as by-catch in tuna fishing.

SPC estimates, based on productivity and the relative extent of Tonga's fisheries waters, suggest that annual longline catches of up to 5,000t (tunas and by-catch) may be sustainable at moderate levels of exploitation. This is considerably higher than current and historical longline catches. Surface fishery potential may be even higher (14,000t for skipjack) but would be more difficult to achieve.

#### *Regional*

The tuna resources of the western and central Pacific, of which Tongan waters form a very small portion (less than 1%), are very large. These resources currently supply around 50% of the global catch of primary market species of tuna.

The 1998 tuna catch was a record 1.8 million tonnes, of which 80% was taken by the surface fisheries, mostly by purse seine. The longline fisheries caught around 8% of that catch and the remainder by a variety of subsistence and other gears, such as trolling. Catches are dominated by skipjack taken in the surface fisheries (70%) followed by yellowfin (22%), taken in both longline and surface fisheries, and albacore and bigeye tunas, mostly taken by longline (8%).

The surface catch is taken mostly in equatorial waters, whereas the longline catch is more widely distributed. Yellowfin and bigeye tuna are taken mostly in warmer waters whereas albacore is generally caught in more temperate areas.

The stocks of skipjack, yellowfin and albacore tuna are considered to be in a healthy condition on a regional basis, but concerns exist about bigeye stocks, with declining longline catch rates combined with increased surface catches of juvenile fish.

### B. History of the Tongan tuna fishery

In the past two decades, most fishing in Tonga was concentrated on the deep-slope fishery, which exploited bottomfishes on the nearshore slope of the archipelago and numerous seamounts. The tuna fishery has developed more recently, with one majority owned Government company (Sea Star Fishing Co.) and a number of private Tongan companies becoming involved in the fishery over the past decade.

The tuna fishery in Tonga is still in a developmental stage, with fishing carried out by a small fleet of local longline vessels. Over the past five years, the size of the domestic fleet has varied between around seven and fourteen active vessels, with a move from smaller (under 15 metres) to larger vessels (over 15 metres) over the past few years. Some vessels primarily target albacore, while other target yellowfin and bigeye. Poor records make it difficult to estimate annual catch figures, however it is generally accepted that the total annual catch of all tunas is around 700 to 1000 tonnes. Most product is exported, mainly to markets in the United States (including American Samoa), Japan and New Zealand.

Conservation and management arrangements for the tuna fishery have generally focused on issuing licences to the operators of local fishing vessels, within a nominal limit of 20 longline licences. Some scientific data has been collected through the implementation of catch and effort logbooks and some catch sampling, but the requirement to submit these logbooks has not been adequately enforced.

Further development of the domestic tuna industry has been hampered by a number of factors, including:

- short history of exploitation of tunas meant there was a lack of available expertise;
- operation of unsuitable vessels in the early stages of the fishery's development;
- lack of infrastructure, particularly wharf and on-shore facilities; and
- 'high cost' operating environment, including high fuel prices and air freight charges.

There are no bilateral access agreements to allow foreign fishing vessels to fish in Tonga's fisheries waters, however Tonga is a party to the US Multilateral Treaty which allows a limited number of US purse seiners to fish in Tonga's waters. To date, there has been only one recorded trip in Tonga's waters by a purse seiner under this Treaty. This is because the vast majority of purse seine fishing is carried out in equatorial areas from 10°N to 10°S, with Tonga's sub-tropical location at 15°- 25° S being less suited to surface fishing.

In summary, Tonga's tuna industry remains in a developmental stage, with potential for further growth given essential improvements in infrastructure and a lower cost operating environment. It will be important to maintain flexibility in the development and implementation of conservation and management strategies to avoid unnecessary costs to the industry that may inhibit further growth.



## PART III – CONSERVATION AND MANAGEMENT OF THE TUNA FISHERY

### A. Objectives

The objectives of the conservation, management and development of the tuna fishery are to:

- ensure that the utilisation of Tonga's national tuna resource is compatible with the sustainable harvesting of the tuna stocks throughout their range;
- maximise economic benefits to Tonga from the utilisation of its tuna resources, including harvesting and processing; and
- contribute to the food security of Tongan subjects and, through the sustainable utilisation of the tuna stocks, the global community.

### B. Goals

The following six goals are expected to be the main outcomes in pursuing the objectives of the conservation, management and development of the tuna fishery. Strategies will be developed under each of these goals.

Goals	
<b>Conservation and Management:</b>	1. Sustainability of the tuna resources, including for food security
<b>Administrative procedures:</b>	2. Minimise any adverse impacts of tuna fishing on the marine environment and non-tuna species
<b>Fulfill economic potential:</b>	3. Efficient administration of the tuna fishery
	4. Implementation of appropriate review, revision and evaluation procedures for the Tuna Plan
	5. Further orderly and efficient development of the domestic tuna industry
	6. Increase revenue generated from the tuna fishery

### C. FAO Code of Conduct for Responsible Fisheries

The principles established in the FAO Code of Conduct for Responsible Fisheries will be used to guide the design and implementation of strategies under the Tuna Plan. These principles relate to, among other things:

- ensuring the effective conservation and management of the living marine resources;
- promoting management measures that ensure conservation of species belonging to the same ecosystem or associated with or dependent upon the target species;
- applying the precautionary approach to the conservation and management of the fishery;
- ensuring that harvesting, handling, processing and distribution of fish and fishery products be carried out in a manner that will maintain the nutritional value, quality and safety of the products, reduce waste and minimise negative impacts on the environment; and

- encouraging bilateral and multilateral cooperation in research and management for species that are highly migratory in nature;

#### **D. Strategies to achieve goals**

#### *Conservation and Management*

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### **1. Sustainability of the tuna resources**

#### **1.1 Regulation of fishing activity**

Regulatory measures that may be applied under this Plan to ensure the sustainable harvest of the resource and provide for the orderly development of the fishery, include:

- i) limits on the level of catch of one or more species;
- ii) limits on the level of fishing effort, including vessel numbers, types and sizes;
- iii) controls on fishing activities, including gear restrictions and deployment of FADs;
- iv) size limits for individual species; and
- v) area or seasonal closures.

Regulatory measures may be revised from time to time, in consultation with the Tuna Consultative Committee, as circumstances in the fishery change, or as information on the status of the resource is received.

##### 1.1.1 Longline fishery

The Tuna Plan initially establishes a total allowable catch/harvest target per annum for the longline fishery, in conjunction with a limit on the number of vessels participating in the fishery. This is set at 4,000 tonnes of the main tuna species<sup>3</sup> (albacore, yellowfin and bigeye) per annum, with an initial vessel limit of 25 longline vessels over 13 metres in length<sup>4</sup>.

The fishing year to which the harvest level / TAC and vessel limits apply is the calendar year, from 1 January to 31 December.

Licences will be granted according to the following preferential licensing system:

- i) Tongan company;
- ii) Foreign-owned local company; and
- iii) Foreign company or fishing association

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<sup>3</sup> At this developmental stage of the fishery, the harvest target level comprises all the main tuna species. In the future, it is likely that each of these species will require a separate harvest level, or TAC.

<sup>4</sup> The initial limit of 25 longliners is based on anticipated annual catches of 160 tonnes per vessel. Investigations will shortly commence into the potential for an 'alia' or small-scale longline fleet, based in Vava'u and Ha'apai. Licence limitations in the longline fishery will be reviewed in line with any future development of an alia fleet, with a view to introducing licence categories for different classes of vessels.

It is recognised that vessel limits constitute an inexact means of controlling fishing effort, however, at this stage of the development of the industry, with inadequate catch data, as well as the current capacity of the Ministry, it is considered to be appropriate. Consideration will be given in future to developing closer proxies for fishing effort, such as hook limits.

**Table 2: Summary of licensing structure for the longline fishery**

Type of company	Licence type	Type of vessel that can be licensed
Tongan company	5 year; subject to annual endorsement Transferable (subject to conditions)	Local fishing vessel Locally based foreign fishing vessel <sup>5</sup>
Foreign-owned local company	3 year; subject to annual endorsement Non-transferable	Local fishing vessel Locally based foreign fishing vessel
Foreign company or fishing association	Subject to access agreements Non-transferable	Foreign fishing vessel

*Tongan Companies*

Tongan companies shall be eligible for a licence for tuna longline issued for a period of up to (five) years. The vessel nominated on such a licence will be:

- a local fishing vessel; or
- a locally-based foreign fishing vessel<sup>6</sup>.

Such a licence will require annual endorsement by the Secretary in order to be valid. Endorsement will be based on:

- a) the licence holder's continuing qualification as a Tongan company;
- b) the nominated vessel qualifying as either a local fishing vessel or a locally-based foreign fishing vessel and, in the latter case, nominated on the licence for no more than two fishing years<sup>7</sup>;
- c) correct payment of all relevant fees and levies;
- d) compliance with licence conditions in the previous 12 month period, including the regular submission of complete logbook data on fishing activities;
- e) the nominated vessel being in marine survey; and
- f) the level of fishing activity undertaken in the previous 12 month period<sup>8</sup>.

A licence that is not been endorsed because of failure to meet the above conditions may be revoked or cancelled.

Licences granted to Tongan companies will be transferable to a third party on a permanent basis provided that that party would qualify in his / her own right as a Tongan company. The transferred licences will only be valid for the balance of the five years remaining, but shall be

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<sup>5</sup> Except in special circumstances, a locally based foreign fishing vessel can be nominated against a Tongan company's licence for no more than two fishing years (that is, a two year period commencing from the date when the licence issued).

<sup>6</sup> A Tongan company, subject to approval from the Secretary, may charter or lease a foreign fishing vessel to fish against its licence. The reason for this is to assist the domestic industry by providing an alternative to the capital expenditure required to purchase a vessel in the developmental stages of the fishery. Such a vessel must comply with the rules governing a locally-based foreign fishing vessel.

<sup>7</sup> Refer footnote 5.

<sup>8</sup> A licence may not be endorsed if the vessel nominated against that licence for the previous 12 month period was not engaged in full-time tuna fishing. In assessing this criterion, the Secretary will take into account whether any inactivity was due to circumstances beyond the control of the licence holder, such as vessel breakdowns, refits or unusually low abundance of tuna during all or part of the fishing year.

renewable subject to the licence holder complying with the terms and conditions of the licence.

*Foreign-owned local companies*

Foreign-owned local companies shall be eligible for a licence for tuna longline issued for a period of up to (three) years. The vessel nominated on such a licence will be:

- a local fishing vessel; or
- a locally-based foreign fishing vessel<sup>9</sup>.

Such a licence will require annual endorsement by the Secretary in order to be valid. Endorsement will be based on:

- g) the licence holder's continuing qualification as a foreign-owned local company;
- h) the nominated vessel qualifying as either a local fishing vessel or a locally-based foreign fishing vessel and, in the case of the latter, being nominated on the licence for no more than two fishing years in total;
- i) correct payment of all relevant fees and levies;
- j) compliance with licence conditions in the previous 12 month period, including submission of data on fishing activities;
- k) the nominated vessel being in marine survey; and
- l) the level of fishing activity undertaken in the previous 12 month period<sup>10</sup>.

Licences granted to foreign-owned local companies will be non-transferable.

*Foreign companies or fishing associations*

Foreign companies or fishing associations shall be granted licences according to the terms of access negotiated and agreed with the Government of Tonga. Licences issued under such access agreements will be of no more than one year's duration.

In addition to any licence conditions specified by the Government of Tonga, the conditions attached to licences issued to foreign fishing vessels shall conform to the *Harmonised Minimum Terms and Conditions for Foreign Fishing Vessel Access* as amended from time to time by the Forum Fisheries Committee.

1.1.2 Surface fishery

The surface fishery refers to the fishery that takes tuna (particularly skipjack and small yellowfin, but also albacore) which as schools at the surface or near surface depths. The primary gear types involved are pole and line and purse seining, but it also includes troll fishing. Given the lack of development in the surface fishery to date and the fact that opportunities for expansion into this area appear to be limited, no TAC or harvest target is established for the surface fishery at this time.

Appropriate controls on catch and / or fishing effort, data requirements and licence conditions will be considered should a fishery develop.

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<sup>9</sup> A Foreign-owned local company, subject to approval from the Secretary, may charter or lease a foreign fishing vessel to fish against its licence. Such a vessel must comply with the rules governing a locally-based foreign fishing vessel.

<sup>10</sup> A licence may not be endorsed if the vessel nominated against that licence for the previous 12 month period was not engaged in full-time fishing, as per footnote 7.

### 1.1.3 Other methods of fishing

Catches taken by way of the following fishing activities will not be subject to catch or effort limits at this time:

- i) commercial sport fishing;
- ii) subsistence fishing; and
- iii) recreational fishing.

### 1.1.4 Declaration of Exclusive Economic Zone

Tonga has not yet declared its Exclusive Economic Zone according to the provision of the United Nations Convention on the Law of the Sea of 1982, with fisheries laws and regulations only applying to a small area of ocean.

The absence of an EEZ significantly compromises the operation of the Tuna Plan, particularly in regard to the monitoring and enforcement of the Plan's provisions. Tonga may also be losing a substantial amount of its resource, and therefore potential revenue, through the activities of either boats fishing in what should be Tonga's EEZ as well as through illegal fishing activity in areas that can not be successfully prosecuted.

Finalisation of the necessary technical information and commencement of negotiations with Tonga's neighbours regarding the delimitation of the Tongan EEZ is a priority under this Plan.

## 1.2 Precautionary approach

In adopting measures to conserve and manage highly migratory tuna stocks in Tongan waters, the Plan shall apply the precautionary approach, and on the basis of the best scientific information available, determine stock-specific reference points and the action to be taken should they be exceeded. Such measures shall be compatible with those applied throughout the range of the stocks, and extend to the assessment of the impacts of fishing on non-target species and their environment.

## 1.3 Scientific research and data collection

### 1.3.1 Logbook data

#### *Requirement to submit logbook data*

In accordance with the *Fisheries (Local Fishing) Regulations, 1995* and *The Fisheries Regulations 1992* licensed operators are obliged to maintain daily records of fishing activity, including of catch of all species and fishing effort.

Logbook data will be collected through approved forms, as amended from time to time. To the extent possible, these forms will be those that have been regionally agreed to ensure compatibility of data for stock assessment purposes.

Catch and fishing effort records from Local Fishing Vessels, Locally Based Fishing Vessels and Commercial Sports Fishing Vessels shall be submitted to the Ministry of Fisheries<sup>11</sup>, at monthly intervals, such that all records are received within 45 days of the recorded fishing.

Catch and fishing effort records from Foreign Fishing Vessels shall be provided to the Ministry of Fisheries in accordance with agreed conditions of access.

Sport fishing associations will be actively encouraged to keep catch and effort records. Such information will assist future analysis of the interactions between different fisheries sectors.

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<sup>11</sup> The Ministry of Fisheries will be enhancing its systems for data collection and collation as a matter of priority. This work will include the printing of a new logbook with carbonated pages to allow industry to retain a copy of the information for their own records, as well as upgrading of the database in which the information is stored. Support for this work will be provided by the OFP.

#### *Penalties for failure to submit logbook data*

In accordance with Section 18 of the ***Fisheries Act 1989***, failure to submit logbook forms in accordance with licence conditions or agreed terms of access may result in fines, suspension or cancellation of licences and /or revocation of licence privileges.

#### *Confidentiality of logbook data*

The Secretary shall treat all logbook data provided to the Ministry as 'commercial-in-confidence'. This information shall not be made available in the public domain except in a summarised form that includes the information on no less than four boats.

#### 1.3.2 Observers

In accordance with the ***Fisheries (Local Fishing) Regulations, 1995*** and ***The Fisheries Regulations 1992***, from time to time licensed operators will be obliged to carry an observer designated by the Registrar and provide them with reasonable assistance in carrying out their duties.

The purpose of observers, among other things, will be to:

- act as a liaison between operators and the Ministry
- collect information on fishing activities for stock assessment, research and monitoring purposes.

Observers will have a compliance role, as set out under sub-section 1.7.3.

#### 1.3.3 Catch Sampling Programme

The Ministry of Fisheries will continue to work in cooperation with OFP to coordinate a port sampling program to collect length-frequency, catch composition and species composition data, for the purposes of logbook data validation, stock assessment and research.

The sampling programme will be designed in collaboration with OFP, to ensure statistical validity for national and regional data collection needs.

#### 1.3.4 Regional cooperation in scientific research

Recognising that the tuna resources in Tonga's fisheries waters are part of wider regional stocks, the Ministry of Fisheries will provide data on the tuna fishery to the Oceanic Fisheries Programme of SPC, or any other relevant expert scientific organisation, on a regular basis. Such information may include data from Local Fishing Vessels, Locally Based Fishing Vessels Commercial Sport fishing Vessels and Foreign Fishing Vessel activity, as well as data collected through observer coverage, the catch sampling programme and any exploratory or research fishing undertaken.

The Ministry of Fisheries will also participate in regional meetings on scientific research and stock assessment of the tuna resources, as appropriate.

### **1.4 Regional and international cooperation**

Tonga is party to a number of regional and international agreements relevant to tuna conservation and management. These include:

- United Nations Law of the Sea Convention;
- 1995 United Nations Fish Stocks Agreement;
- South Pacific Forum Fisheries Agency Convention;
- Niue Treaty;
- US Multilateral Treaty; and
- Harmonised Minimum Terms and Conditions of Access.

It is also anticipated that the Kingdom of Tonga will become party to the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific.

The provisions of the Tuna Plan will be consistent with Tonga's existing and future international commitments. It is recognised that these provisions may require amendment from time to time to reflect agreements at the regional and international level.

### **1.5 Research and exploratory fishing**

#### *Research*

The Ministry of Fisheries currently has available to it a longline vessel (*MFV Takuo*) for research and training purposes.

The *Takuo* will be managed in terms of research and training by a small team. This team will include representatives from:

- Ministry of Fisheries;
- Ministry of Finance;
- Ministry of Education;
- Ministry of Civil Aviation; and
- domestic tuna industry

The team will, among other things, develop a research-fishing programme for the *Takuo*. All catch, effort and other information gathered through research fishing activities will be distributed to all licence holders for tuna in a timely manner.

In addition to research carried out by the Government's own research vessel, the Secretary will consider research proposals from well-known and respected research agencies and organisations.

The Secretary may exempt fishing activities carried out as part of an approved research programme from being subject to certain conservation and management measures in the fishery, including catch or effort limits.

#### *Exploratory and test fishing*

In the development stages of the tuna fishery, requests to undertake exploratory or test fishing will be considered. Prior to consideration as to the merits of the proposed activity, the proponent will be required to submit a detailed fishing plan, including:

- reasons for test fishing and anticipated economic benefits for Tonga;
- method/s of fishing and associated fishing activities, including a full description of gear, deck machinery and technique to be used;
- area to be fished;
- target species;
- details of vessel/s, including name, registration, measurements, insurance and survey; and
- duration of test fishing.

Key issues in considering exploratory and test fishing proposals will include:

- whether the proposed activities differ significantly from those already being undertaken, particularly in regard to the proposed target species, fishing method and area;
- the potential contribution the activity would make to the development of the tuna industry;

- the capacity of the existing tuna industry to undertake the proposed activity;
- whether the proposed activity is consistent with the objectives and goals of the Tuna Plan;
- potential interactions with other fisheries;
- potential for adverse impacts on the status of living resources or the marine environment, as required under the precautionary approach; and
- the ability of the Ministry to adequately monitor and supervise the proposed fishing activity;

Any approved exploratory or test fishing operations will be subject to such conditions as may be established by the Secretary, including any exemption to the application of conservation and management measures in the fishery. Where possible full observer coverage will be required.

### 1.6 Related fishing activities

#### *Fish aggregation devices*

The Ministry will:

- maintain a register of all anchored FADs deployed and submit this to the Ministry of Marine and Ports in the interests of navigational safety; and
- keep information collected on FAD fishing under review and, if necessary, introduce controls on the use of FADs in the tuna fishery.

#### *Bait fishery*

The Ministry will:

- monitor the development of the bait fishery both in relation to the longline fishery and any live bait fishery that might develop to support pole and line operations; and
- keep information collected on the bait fishery under review and if necessary introduce controls on the harvesting of bait.

### 1.7 Monitoring, Compliance and Surveillance

#### 1.7.1 Licensing conditions

Table 3, below, sets out the broad licence conditions to assist in regulation and monitoring of a fishing vessel's activities. Where appropriate these conditions will be tailored for specific categories of vessels.

**Table 3: General licence conditions**

	<b>Conditions</b>
<b>Area</b>	Specifies the area in which the licence can be used.
<b>Species that can be targeted</b>	The species allowed to be targeted – in this case, highly migratory tuna species, including albacore, bigeye and yellowfin.
<b>Method</b>	The fishing method/s that can be used
<b>Gear</b>	Any restrictions on gear that can be used.
<i>Continued.....</i>	
<b>Licence on board vessel</b>	Licence must be carried on board at all times Licence must be produced at the request of an

	<b>Conditions</b>
	<p>Authorised Officer</p> <p>If a vessel is at sea when its licence is issued, the correct licence number must be cited until the boat enters port and obtains its licence.</p>
<b>Compliance with Laws and Regulations of Tonga</b>	<p>Vessel operators are required to comply with all Acts and Regulations of the Kingdom of Tonga, including:</p> <ul style="list-style-type: none"> <li>i) Provisions of this Tuna Plan</li> <li>ii) Provisions of any Access Agreement that the licence was issued under</li> <li>iii) Any special conditions that are attached to the licence</li> </ul>
<b>Transhipment</b>	<p>Transhipping of tuna at sea is not allowed under this Plan unless it occurs as part of a 'permitted transhipment operation'.</p>
<b>Logbooks</b>	<p>Requirements for submission of logbook data.</p>
<b>Observers</b>	<p>Requirements for carriage of observers</p>
<b>Good Standing on Regional Register</b>	<p>Locally based foreign fishing vessels and foreign fishing vessels are required to have good standing on the Regional Register.</p> <p>Local fishing vessels that fish in the waters of other regional countries are required to be listed on the Regional Register.</p>
<b>Vessel Safety Certificate<sup>12</sup></b>	<p>Every vessel licensed for tuna fishing, including foreign fishing vessels, shall hold either a valid safety certificate issued by the Ministry of Marine and Ports or else a temporary exemption from this requirement pending the vessel's arrival in a Tongan port for inspection.</p>
<b>Vessel Marking<sup>13</sup></b>	<p>Every licensed vessel shall be marked and identified in accordance with the <i>FAO Standard Specifications for the Marking and Identification of Fishing Vessels</i>, as endorsed by the FAO Committee on Fisheries in 1989.</p>

*Continued.....*

<b>Communications with Authorities<sup>14</sup></b>	The operator of a licensed vessel shall ensure continuous monitoring on board of the international
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<sup>12</sup> Further consideration will be given to appropriate requirements for Vessel Safety Certificates, Vessel Markings and Communications with Authorities to ensure such requirements are practical as well as consistent with the regulations of other government Ministries.

<sup>13</sup> Refer to footnote 11

<sup>14</sup> Refer to footnote 11

	<b>Conditions</b>
	distress and calling frequency and the international safety and calling frequency to facilitate communication with the fisheries management, surveillance and enforcement authorities

### 1.7.2 Vessel monitoring system

An approved automatic location communicator, consistent with the FFA member country VMS, must be carried by:

- i) all foreign fishing vessels licensed to fish in Tonga's fisheries waters; and
- ii) all locally based foreign fishing vessels.

Local fishing vessels will not be required to carry an automatic location communicator. However, this requirement may be reviewed in future.

### 1.7.3 Observers

As noted under sub-section 1.3.2, licensed vessels are required to carry designated observers at the request of the Secretary. In addition to collecting data for the purposes of scientific research, such observers will also be used for compliance purposes.

Specific tasks may include:

- monitoring transshipments;
- monitoring any closed areas, size limits or catch restrictions; and
- verifying catch and effort data recorded by the Master.

### 1.7.4 Aerial and surface patrols

Aerial and surface patrol assets will be strategically deployed to assist in the monitoring and surveillance of the tuna fishery. Such activities are aimed at, among other things:

- deterring and detecting illegal fishing activity from unlicensed fishing vessels;
- assist with compliance by licensed vessels of the terms of their licences; and
- increasing the safety of the fishing industry through effective search and rescue activities.

### 1.7.5 Cooperative regional arrangements

The Niue Treaty allows for cooperation on fisheries surveillance among FFA member countries, allowing for subsidiary agreements to be formed between two or more FFA member countries.

Tonga is relatively well served in regard to maritime surveillance assets, however consideration should be given to entering into a cooperative surveillance agreement with adjacent FFA member countries (Niue, Samoa and Fiji). One potential area of benefit could be through the exchange of VMS information on the activities of foreign fishing vessels. This may assist in more efficient targeting of Tonga's surveillance assets.

## **2. Minimise adverse impacts of fishing on marine environment and bycatch species**

### **2.1 Bycatch and non-target species**

#### 2.1.1 Provision of information

Recognizing the need for sustainable management of the fishery to take into account impacts on non-target, associated and dependent species ('by-catch'), all licensed vessels shall provide

all required details of the catch of all species and disposal of the catch as part of the logbook data referred to in sub-section 1.3.1.

The Ministry of Fisheries shall compile information provided on by-catch species and make this available to industry on an annual basis. The Ministry, in consultation with the TCC, shall also implement appropriate measures to control or limit catch of bycatch species, if required.

#### 2.1.2 Release of certain species

In regard to any incidental capture of turtles, seabirds and marine mammals all efforts shall be made by the Master and crew to release all such animals alive.

Where possible, sharks that are not utilised for consumption or sale shall be released alive. Finning of live sharks is prohibited.

#### 2.1.3 Fish aggregation devices

The development of an alia fleet, or future activity in the surface fishery, may result in the increased deployment of fish aggregation devices (FADs). Scientific research has shown that FADs can lead to an increase in the level of by-catch when fishing for tuna species. For this reason, logbook information will specify whether a catch is taken in association with a FAD, whether naturally occurring or artificial; drifting or moored.

### **2.2 Marine pollution from tuna fishing vessels**

Indirect effects of tuna fishing are primarily related to waste disposal and pollution. The following points are proposed as conditions on fishing vessels to assist in minimising the potential impacts on the marine environment<sup>15</sup>:

- no fishing vessel shall dump or discharge into the sea, whether directly or indirectly, any non-biodegradable material (e.g. plastics and bait boxes) or any fuel or oil;
- no fishing vessel shall dump or discharge into the sea biodegradable material (e.g. rejected fish) within 1 nautical mile of land; and
- no fishing vessel shall deliberately dump or discard any fishing gear, except in an emergency or circumstances involving the safety of a vessel or its crew. In the event of fishing gear being either discarded under the above circumstances or accidentally lost, reasonable efforts shall be made to recover it.

In addition to the above conditions, the Tonga Environmental Management and Planning Project will be working with members of the tuna industry to develop a voluntary code of practice.

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<sup>15</sup> The general provisions relating to marine pollution will be consistent with MARPOL.

### **3. Effective and efficient administration of the tuna fishery**

#### **3.1 Ministry of Fisheries**

The Ministry of Fisheries has primary responsibility to implement and administer the strategies under the Tuna Plan. The Ministry recognises that it is essential for it to provide effective and efficient support to ensure the success of the Plan.

The implementation of the findings of a recent sector review, primarily through a team of independent consultants funded jointly by FAO and AusAID should strengthen the Ministry's capacity in this respect. The implementation project, with AusAID support, is anticipated to result in increased accountability of the Ministry, review of internal structure, improved training of staff, and a general increase in the capacity of the Ministry to perform its functions, as well as greater relevance to the both the tuna industry and the wider community.

#### **3.2 Cooperation and co-ordination with other Government departments**

While primary responsibility for the implementation of strategies under the Tuna Plan lies with the Ministry of Fisheries, the achievement of the objectives and goals will rely on cooperative and coordinated action across different government Ministries.

Effective coordination between government ministries and departments will be particularly important to achieve the goals of the further orderly and efficient development of the domestic tuna industry and to increase revenue generated from the tuna fishery. This will rely heavily on coordination with ministries and departments such as Marine and Ports, Customs, Labour, Commerce and Industries, and Treasury.

It is anticipated that the establishment of a formal consultative and advisory structure, including the formation of an inter-disciplinary Tuna Consultative Committee (sub-section 3.3.1) will provide the necessary tools for effective reporting and legislative coordination between areas of government.

#### **3.3 Consultative and advisory structure**

##### **3.3.1 Tuna Consultative Committee**

A Tuna Consultative Committee is established under this Tuna Plan. The TCC will report to Cabinet, through the Minister of Fisheries. The main purposes of the TCC are to:

- review of the performance of the Tuna Plan over the previous 12 months;
- provide recommendations and advice to the Secretary on changes to the Plan;
- provide a forum for discussion of issues and strategies that require the input of Government Ministries other than the Ministry of Fisheries; and
- assist to ensure transparent decision-making in regard to the tuna fishery.

The Secretary of Fisheries shall Chair meetings of the TCC, which will meet on an annual basis. Extraordinary meetings of the TCC may be held if required.

The TCC will have representation from all major stakeholders and should include representatives of the following:

- Ministry of Fisheries; and
- other relevant Government Ministries/Divisions:
  - Customs;
  - Marine and Ports;

- Labour, Commerce and Industries;
- Treasury;
- Tonga Defence Force;
- representatives from other island districts;
- a representative of Tongan Export Fisheries Association, and other industry members;
- the commercial sport fishing industry; and
- a representative of non-government organisations.

Not all the above groups will necessarily attend all meetings for the TCC. They will however be invited to all meetings and provided with outcomes of meetings.

### 3.3.2 National Monitoring, Control and Surveillance Committee

The National MCS Committee will focus on all aspects of monitoring, control and surveillance issues, including those relating to the tuna fishery. The main purposes of the National MCS Committee will be to address:

- i) the allocation and sharing of inter-agency MCS resources;
- ii) cost recovery between agencies, if necessary;
- iii) lead authorities and processes for regular MCS activities;
- iv) establishment of authoritative contacts between agencies;
- v) processes for the emergency allocation of resources;
- vi) training opportunities and standards for marine enforcement and joint enforcement activities;
- vii) procedures for liaison with outside government agencies and / or other FFA member countries;
- viii) working procedures to address special operational activities and issues, including violations;
- ix) the effectiveness of fisheries related MCS programmes (review function) (per sub-section 3.4a)); and
- x) other relevant issues that will arise from time to time, such as
  - assistance with the development of Niue Treaty initiatives (per sub-section 1.7.5);
  - regional observer programme (per sub-section 1.7.3);
  - Search and Rescue coordination;
  - EEZ proclamation (per sub-section 1.1.4); and
  - implementation of VMS (per sub-section 1.7.2).

Representation on the National MCS Committee will be drawn from:

- a) one representative from Ministry of Fisheries;
- b) one representative from Ministry of Foreign Affairs;
- c) one representative from Tonga Defence Forces;
- d) one representative from Police;
- e) one representative from Customs;
- f) one representative from Marine and Ports;

- g) one representative from Tonga Export Fisheries Association;
- h) one representative from Telecommunications;
- i) one representative from Civil Aviation; and
- j) one representative from the Port Authority.

The Ministry of Fisheries will provide a Committee Secretary.

The Chair of the Committee will be endorsed by Cabinet.

The National MCS Committee will meet quarterly, or as necessary.

### **3.4 Reporting procedures against the Plan**

The Secretary will report against the Tuna Plan through:

- a) with the assistance of the TCC and the National MCS Committee, a report on the Tuna Plan to be prepared at the end of each fishing year, providing detailed information on the:
  - status of the tuna stocks;
  - statistics on catch and fishing effort for the fishing year, including an audit against the harvest target levels / TACs and licence limitations;
  - reports and results of any research, exploratory or test fishing carried out during the fishing year;
  - status of implementation of strategies under the Tuna Plan;
  - effectiveness of strategies against the performance criteria;
  - summary statement of achievements against objectives and goals; and
  - any recommendations for revisions.
- b) a brief summary statement in the Ministry of Fisheries' Annual Report.

## **4. Review procedures for certain strategies under the Tuna Plan**

### **4.1 Harvest target levels / TACs and levels of fishing effort**

The Secretary, in consultation with the TCC, will annually review the harvest target levels / TACs and levels of fishing effort, and if necessary revise these. In reviewing the harvest target levels / TAC and vessel limits, the following information will be taken into account:

- best scientific information, including the level of uncertainty in stock assessments;
- the level of catch, including by-catch taken in the previous two fishing years;
- where possible, the level of catch taken in adjacent waters;
- the potential need to limit fishing effort for economic reasons, including the further development of the domestic industry;
- development of tuna fishing methods other than longlining;
- the objectives and goals for the tuna fishery, as set out in this Plan; and
- any other factor that the Secretary considers relevant.

#### **4.2 Licence fees and charges**

Licence fees and charges will be reviewed annually by the Secretary, in consultation with the TCC, on the following basis<sup>16</sup>:

- fleet profitability;
- price information, including for both domestic and export fish; and
- any other factor the Secretary considers relevant.

Following consultation with the TCC, the Secretary shall determine, through a regulation, the relevant fees and



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<sup>16</sup> A small independent study will be undertaken, in consultation with relevant Ministries and the tuna fishing industry, to determine a fair basis for establishing licences fees for the domestic industry.

## PART IV – DEVELOPMENT OF THE TUNA INDUSTRY

### *Fulfill economic potential*

The development aspects of the Tuna Plan set out a broad summary of issues for the further consideration of Government. These are areas that will rely on input and action from other government agencies and extensive discussion with industry.

Implementation of the strategies and achievement of the goals outlined in Part IV will be a major factor in the Tuna Plan meeting the overall objectives of the fishery:

- ensure that the utilisation of Tonga's national tuna resource is compatible with the sustainable harvesting of the tuna stocks throughout their range; and
- maximise economic benefits to Tonga from the utilisation of its tuna resources, including harvesting and processing.

### **5. Further development of the domestic tuna industry**

#### **5.1 Investment policies**

An investment regime conducive to industry growth should be administratively efficient, consistent, transparent and competitive with other countries in the region. The current investment regime would not appear to meet these requirements and a review of current arrangements is recommended.

##### 5.1.1 Foreign investment

Current government policy restricts participation in the tuna fishery to 51% owned Tongan companies. This restricts the level of foreign investment and has led to limited growth in the fishery and a high turnover of participants in the industry. It is recommended that the ownership limitations be relaxed and foreign owned companies incorporated in Tonga and having their primary base of operations in Tonga be allowed to establish operations. However, vessels operated by foreign owned companies would have to base locally and preference would be given to Tongan companies in the allocation of licences. The government is reviewing the Foreign Investment Act and the outcomes from this review will have implications for the fisheries sector.

##### 5.1.2 Credit

The Fisheries Sector Review stated that the repayment term is inadequate given the start-up uncertainties of new fishing ventures. The lack of familiarity on the part of the banks with the nature of the fishing industry is often highlighted as causing reluctance on the part of the banks to make loans available to the sector. To address this it is recommended that technical assistance be sought to provide training to the major banks in appraising fisheries loan proposals thereby making the banking sector more responsive to the needs of the industry.

#### **5.2 Infrastructure**

The development of the tuna industry in Tonga is dependent on the provision of adequate supporting infrastructure, particularly wharves, onshore processing facilities, including ice making capacity and the provision of airfreight services. Government has been involved in the operation of onshore processing facilities, but the stage of development of the private sector would now suggest that the private sector should assume this role. However, the government does have a role in facilitating such developments.

### **5.3 Training and education**

The Tonga Maritime Polytechnical Institute as the primary institute for maritime training in Tonga. However, there is currently no course specific to the needs of the fishing industry being run by the Institute. In order to better service the fishing industry, specialised training for fishing crews is required including pre-sea training.

In addition, a programme within the school system educating students on the importance of marine resources to the economy of Tonga. Such a programme should also promote greater awareness of the need to protect the marine environment and adopt practices to reduce marine pollution. Future opportunities for employment in the fisheries sector, both nationally and regionally, could be highlighted as part of this programme.

### **5.4 Enhanced fleet opportunities**

#### **5.4.1 Fleet characteristics**

Small vessels have already proved to be unsuitable in Tonga as longline vessels (*FV Capricorn I*, *FV Capricorn II*, and *FV Avalon*). Furthermore, smaller vessels in the 15 metre or less range have been unsuccessful as domestic longline vessels in Federated States of Micronesia—largely because of their limited fuel capacities and fish holding capacities<sup>17</sup>. However, some smaller vessels in the 15 metre range operating in Fiji and French Polynesia have had some success.

In general it would appear that larger vessel of at least 18 metres in length are the most suitable vessels for the Tongan longline fishery. However, such vessels might not be suitable for use in the outer islands of Vava'u and Ha'apai due to infrastructure constraints. The use of smaller vessels in these areas would also provide the opportunity for small-scale fishermen to enter the commercial tuna industry due to the lower cost of such vessels.

## **6. Increase revenue generated from the tuna fishery**

### **6.1 Domestic licence fees and charges**

The fee for a local fishing licence for a typical longliner in Tonga is in the vicinity of T\$100. In reality the fee level represents a nominal figure. There would appear to be scope for increasing this fee, although this might only be appropriate if other taxes and duties being imposed on the industry were reduced. Given the paucity of available data, it is difficult to base a proposed licence fee on any economic rationale. To address this problem, an independent study on options for domestic licensing fees will be commissioned. In addition, in the medium term, consideration should be given to implementing some form of cost recovery into licensing fee calculations.

### **6.2 Foreign access fees**

The standard fee for access in the region is currently set at 5% of the value of the anticipated catch for each vessel, with the amount of catch being based on historical records. However, the quality of data from the longline fleets has been generally poor and Tongan waters have not attracted high levels of foreign fishing. Under such circumstances it is difficult to recommend an appropriate fee level for foreign fishing operations in Tonga. However, the current fee of US\$10,000 per vessel seems a reasonable bottom line as this has been the maximum fee paid by frozen longline vessels operating in countries neighbouring Tonga. The study referred to in Section 6.1 could also consider this issue in greater detail.

### **6.3 Foreign exchange earnings**

Exports of tuna can make a major contribution to foreign exchange earnings in Tonga. Current estimates of foreign exchange earnings from the tuna fishery in Tonga are not precise. The Ministry of Fisheries sets a price of T\$3-50 which is used for the calculation of export

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<sup>17</sup> Beverly & Chapman, 1997.

tax. The real price on the Japanese market may at least be three times higher. The Customs Department reportedly uses information at the time of export, which again will not be the true price as the product is sold at auction on arrival at the overseas market. Obtaining a reliable estimate of the foreign exchange earnings from the tuna fishery will require a follow-up with industry perhaps through the Customs Department. A more accurate value is expected to be of benefit in:

- attracting investment and external donor funding for tuna related issues;
- providing government with a better guide for the allocation of natural resources; and
- understanding the true value of the fisheries resources of the nation.

