National Fisheries Report for Tonga

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INTRODUCTION/BACKGROUND TO THE FISHERY

The tuna a resources occurring within the approximately 700,000 km² 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.

HISTORY

Most fishing in Tonga was concentrated on the deep-slope fishery, which exploited bottom fishes on the near shore 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. Sea Star has recently been privatised with the majority share holding passing to the private sector.

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 grown from 7 to 30 active vessels, with a move from smaller (under 15 metres) to larger vessels (over 15 metres) over the past few years. A small number of vessels primarily target albacore, while the remainder target yellowfin and bigeye. Poor records in the past have made it difficult to estimate annual catch figures. For the year 2000 the total annual catch of all tunas is around 1200 to 1500 tonnes. Fish is exported mainly to the United States (including American Samoa), Japan and New Zealand.

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.
Tonga is a party to the US Multilateral Treaty that allows a limited number of US purse seiners to fish in Tonga’s waters. To date, there has been little activity in Tonga’s waters 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.

**TOTAL CATCH FOR ALL SPECIES (1997 - 2001)**

The Ministry of Fisheries have been working in conjunction with the Oceanic Fisheries Programme of SPC in collecting and recording data associated with the Longline Fishery in Tonga. Past inconsistencies in the data collection has made it difficult to establish the true rate of exploitation but improvements has resulted in a closer estimation of the status of the Fishery.

There has been a steady increase in the number of Tuna caught over the past couple of years with the Total annual catch for the longline fishery reaching 1,998 tons. This amount is considerably less than that established by the Tuna Management Plan as the Total Allowable Catch.
FLEET STRUCTURE

A total of 28 vessels are registered and licensed as Tuna Fishing Vessels. Of these 28 vessels, 16 are Local Fishing Vessels, 10 are Locally Based Foreign Fishing Vessels and 2 are Government owned Fishing Vessels. The Locally Based Foreign Fishing Vessels are owned by three different companies from New Zealand, Korea and China. These vessels range in size from 17.5m to 39.9 m in length with an average length size of 25.31 metres.

A Tuna Management Committee has been established to advise the Minister on the development of the fishery. It is comprised of Ministry of Fisheries officials as well as representatives of industry and other interested government departments. The cap on the number of vessels licensed under the plan has been increased twice from 25 to 30 and 30 to 50. The key concern is that the actual licenses granted relate to the ability to process the catch and that port and support infrastructure can meet the increased demands including the needs of the bottom fishery.

The above graph shows the vessel sizes for the current Tonga Longline fleet - despite the wide range in sizes, it is believed that the most economical length range is between ~20 and 30 metres. Vessels below 20m in length are uneconomical, as they have limited fuel and fish holding capacities, whereas vessels exceeding 30 metres in length are uneconomical because the crew costs becomes too high. The larger vessels may not be suitable for use in the outer islands of Vava’u and Ha’apai due to infrastructure constraints. This may allow small-scale fishermen to enter the commercial tuna industry and a feasibility project is to be undertaken under the AusAID Fisheries Management Project.
CATCH BY SPECIES (1997 - 2001)

The table below gives the Provisional catch estimates for the Tonga Longline fleet for the years 1997 – 2001.

<table>
<thead>
<tr>
<th>Year</th>
<th>Boats</th>
<th>Albacore</th>
<th>Bigeye</th>
<th>Yellowfin</th>
<th>Black Marlin</th>
<th>Blue Marlin</th>
<th>Stripped Marlin</th>
<th>Swordfish</th>
<th>Shark</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>7</td>
<td>143</td>
<td>16</td>
<td>10</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>18</td>
<td>214</td>
</tr>
<tr>
<td>1998</td>
<td>7</td>
<td>122</td>
<td>15</td>
<td>19</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>8</td>
<td>193</td>
</tr>
<tr>
<td>1999</td>
<td>7</td>
<td>183</td>
<td>30</td>
<td>39</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>4</td>
<td>17</td>
<td>327</td>
</tr>
<tr>
<td>2000</td>
<td>16</td>
<td>475</td>
<td>97</td>
<td>150</td>
<td>8</td>
<td>14</td>
<td>40</td>
<td>20</td>
<td>18</td>
<td>931</td>
</tr>
<tr>
<td>2001</td>
<td>21</td>
<td>1268</td>
<td>191</td>
<td>259</td>
<td>4</td>
<td>22</td>
<td>26</td>
<td>28</td>
<td>10</td>
<td>1988</td>
</tr>
</tbody>
</table>

Note that catches for 1997 – 2000 represent unraised logsheets only. Logsheet coverage for each year is not known.

The provisional catch estimates for 2001 were determined by combining the best estimates of SPC data with the logsheets and unloading data recorded by the Ministry of Fisheries. The logsheet data for the years prior to 2001 is not known and it has therefore not been possible to raise the logsheet data.

The Albacore catch in 2001, as in previous years dominated the tuna catch with albacore accounting for ~74% of the catch – the other two main species, Bigeye and Yellowfin making up ~11% and ~15% respectively of the total Tuna catch in 2001.

FINAL MARKET DESTINATION OF CATCHES / DISPOSAL OF CATCH

Because of limited airfreight capabilities most of the tuna is exported to New Zealand although this is rarely the final destination that is the US and Japan.

ONSHORE DEVELOPMENTS (transshipment, processing etc.)

Under the Tuna Management Plan, the transshipping of tuna at sea is forbidden unless it occurs as part of a 'permitted transshipment operation'.

There are currently three centres for processing of tuna for export in Nuku’alofa, all of which are owned by the private sector. Each facility is equipped with cold storage space, ice machines, bench saws and the necessary equipment used in the processing of Tuna for export.

Companies that do not own their own fishing processing facility either have their catch processed or sell their fish directly to a company with facilities.

The two main problems faced by fishing companies are lack of space in the harbour due to many derelict vessels occupying valuable space and available airfreight on outward flights.
FUTURE PROSPECTS AND DEVELOPMENTS

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.

Foreign investment

Restrictions on foreign participation in the tuna fishery have been lifted provided that all catch is processed and exported from Tonga.

Credit

The lack of familiarity on the part of the banks with the nature of the industry is often highlighted as causing reluctance on the part of the banks to make loans available to the sector. Technical assistance to provide training to the major banks in appraising fisheries loan proposals is being sought.

Infrastructure

Further development of the tuna industry in Tonga to achieve its full potential will depend 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 success of the private sector in this area would now suggest that government’s role would be to facilitate such developments.

Government has identified the need for a designated fisheries wharf for the Tuimatamoana basin but funding for such a project is still being sought.

Training and education

The Tonga Maritime Polytechnic Institute as the primary institute for maritime training in Tonga. However, there is currently no course specific to the needs of the fishing industry. Specialized training for fishing crews including pre-sea training is urgently required.

In addition, awareness of the importance of marine resources to the economy of Tonga should also be a matter of high priority within the school system. 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, should be highlighted as part of this programme.