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## **An examination of issues in the fisheries sector in a small island economy: The case of Tonga**

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# **An examination of issues in the fisheries sector in a small island economy: The case of Tonga.**

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## **Abstract**

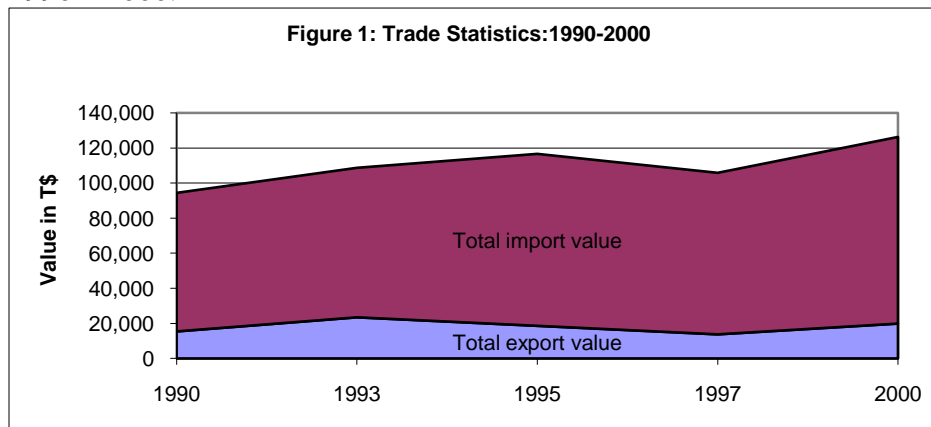
Tonga as a small island economy faces continuous trade deficits. The Government has identified the fisheries sector as having great potential. This paper explores current issues in the fisheries sector in Tonga. The emphasis in this paper will be on issues in fish exports from Tonga. It is perceived that barriers to trade have been a major contributing factor to the sector's poor performance. The focus here is on the financial returns that fishermen receive and the influences that the sizes of operators and types of fish exported have on the return to the exporters/fishermen in Tonga.

*Key words: Tonga; small island economy; fisheries sector; export markets and financial returns.*

## Introduction:

Tonga consists of some 150 islands and islets of which 36 are inhabited. The total land area is 699.71 sq km spread over a sea area of approximately 700,000 sq km. It lies between 15° South and 23° 30' South and 173° West and 177° West. Tonga is divided into three main island groups being Tongatapu, Ha'apai and Vava'u. The capital is Nuku'alofa on Tongatapu. The approximate population is 105,600 (1995).

Tonga, as a small island economy has faced a chronic trade deficit over the past decades. The external current account deficit increased from an average of 6.3% of GDP in 1999 to 8.1% in 2000(ADB, 2002). Figure 1 shows the external current account position for Tonga for the period 1990 – 2000.



*Source: National Reserve Bank of Tonga*

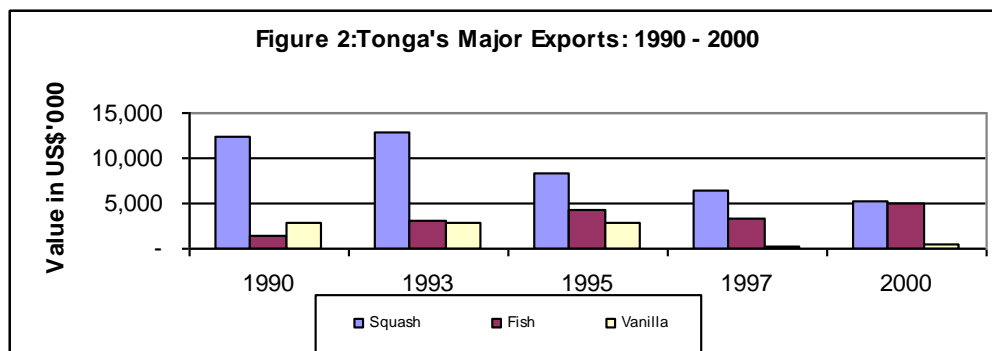
The Tonga Government, therefore, in its response to this problem of increasing deficit has put its overall development theme during its Five Year Development Plan aimed at achieving sustainable economic growth conducive to a higher per income with special emphasis placed on enhancing the export sector. The fisheries sector has been identified as one of the sectors demonstrating the highest growth potential.

## Tonga's Fisheries Sector

Fishing has always been an important subsistence activity in Tonga, having played an important role for Tonga in traditional food production. However, commercial fishing for local and export markets remained under developed until the early 1980's, when budgetary assistance to the Fisheries Division was strengthened and specific sectoral initiatives were undertaken by the government to exploit pelagic harvests and accelerate private small-scale investment.

### Significance of the Fisheries sector to Tonga

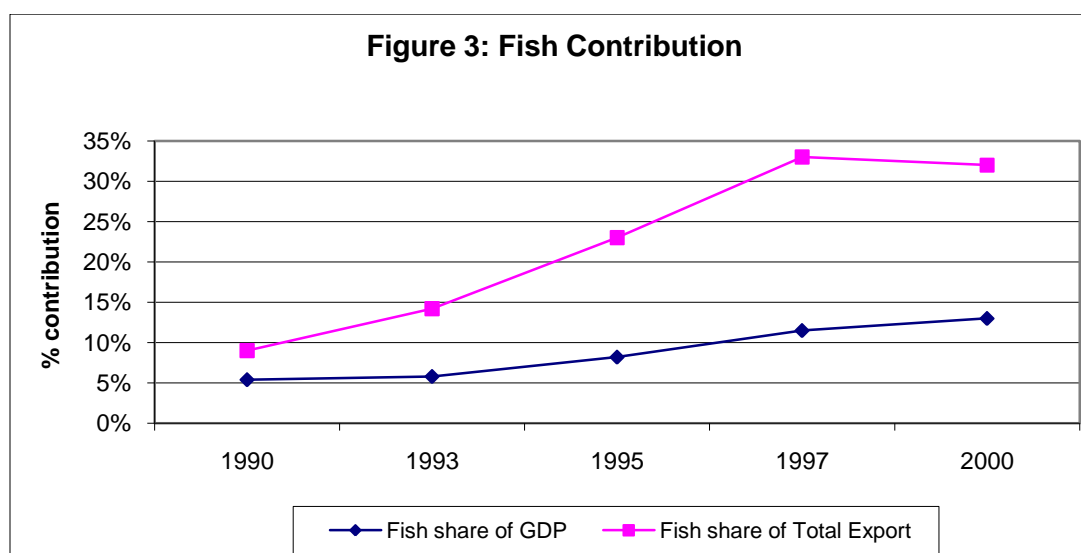
Fisheries are of special importance to a small island state like Tonga. The industry grew steadily throughout the last decade to become an important source of foreign exchange earnings. In 1993 fisheries exports became the second largest foreign exchange earner after squash, exceeding vanilla for the first time as shown in Figure 2.



Source: Asian Development Bank Database

### Contribution to Economy

Since the late 1980's the fisheries sector has increasingly become a very important sector in generating foreign exchange earnings for Tonga, but also in its contribution to Tonga's GDP. Fisheries sector share of foreign exchange earnings increased from 9% in 1990 to more than 33% in 1999. Similarly, Fisheries share of GDP increased from 5% to 13% respectively as shown in Figure 3.



Source: National Reserve Bank of Tonga

### Employment

There are 2,300 registered fishermen in the country with about 16% of the households in Tonga engaged in some form of commercial fishing (Budget Statement, 1995). This number increased to more than 5,000 households (32.6%) at the end of 2000. (Tonga Agricultural Census, 2001).

### Fisheries Legislation

The basic fisheries law is the Fisheries Act 1989. The Act declares that all territorial seas and internal waters are the property of the Crown. Every Tongan has the right to fish in these waters and there are no traditional fishing rights giving villages, clans or individual's exclusive rights to fish in certain areas.

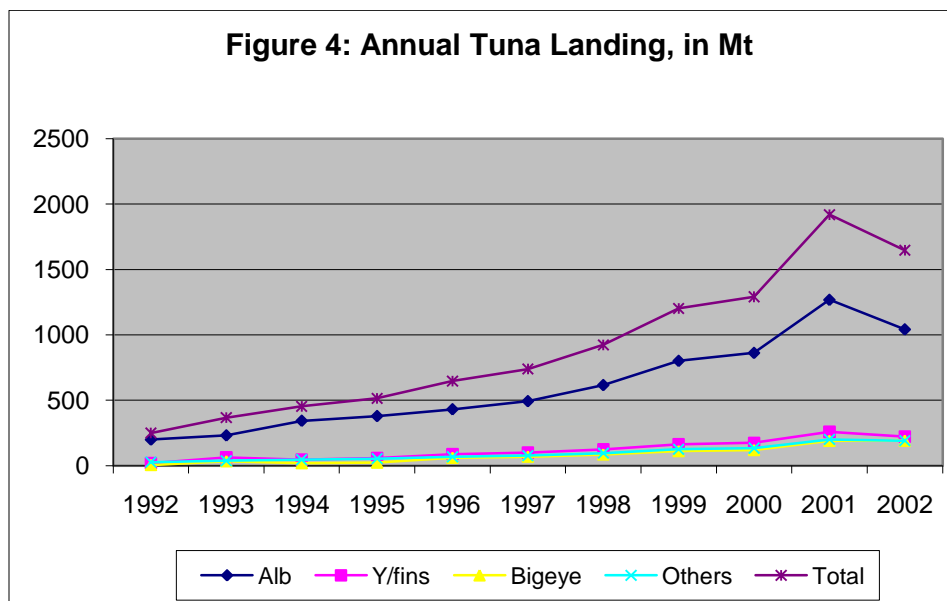
### Fisheries resources:

Three percent of the total area of the Pacific EEZ belongs to Tonga. However, Tongan fishermen only take about 0.3% of the total fish catch in the region.

### Tuna Resources:

Based on productivity and relative extent of the Tonga's EEZ, SPC estimates that an annual landing of up to 4,000Mt is sustainable.

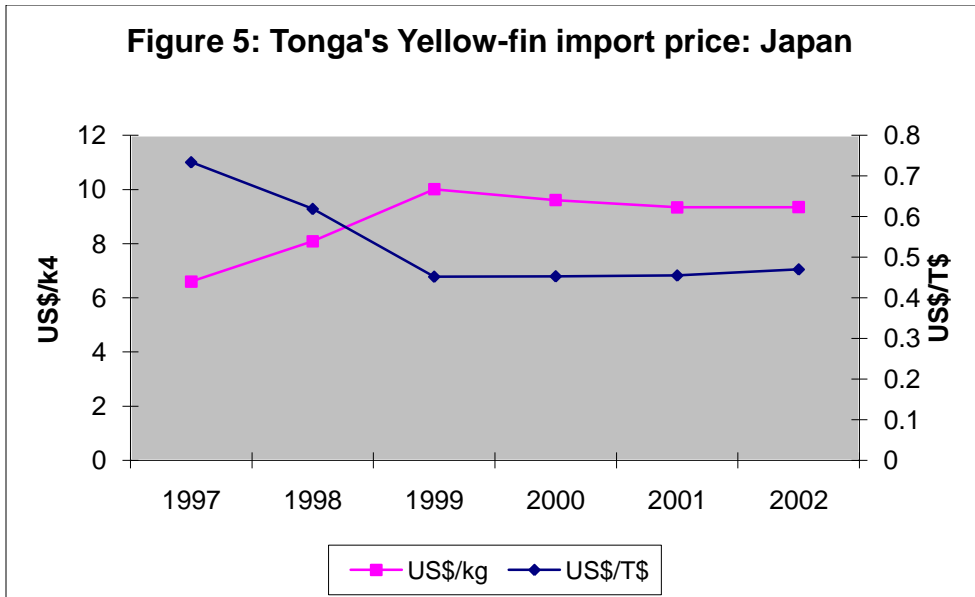
As noted from figure 4, there has been a steady increase in the total tuna landing over the past decades. The highest catch was in 2001 with a total of 1,919Mt. The steady increase was due to increase in number of fishing fleets (from 16 in 1999 to 26 at the end of 2002). The decline in 2002 is due to al-Nino effect on global weather that resulted in low catch.



Source: South Pacific Commission, 2003

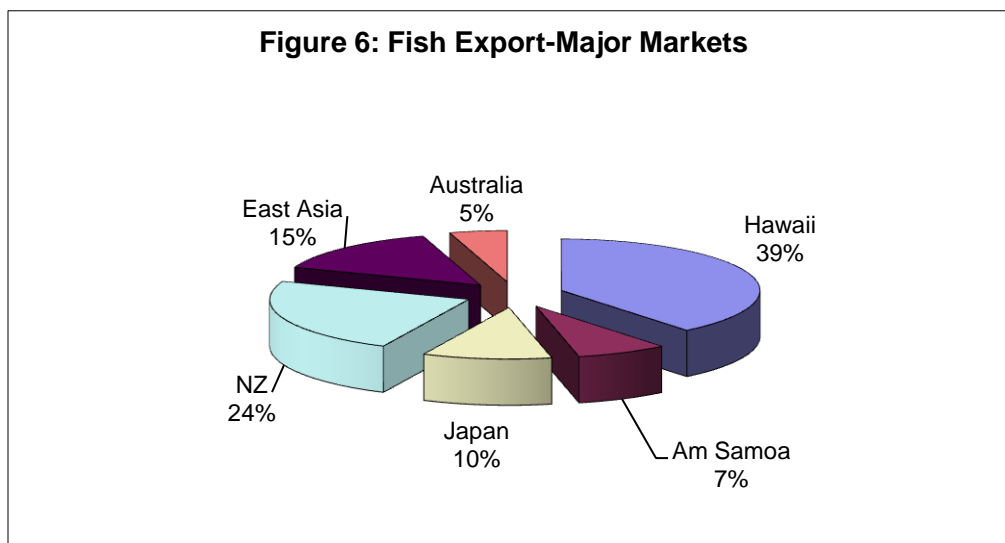
### Tuna Prices:

Price of yellow-fin Tuna export from Tonga to Japan has been increasing since 1997 and levelled off at an average of US\$9.30/kg as shown in figure 5.



### Fish Export Market

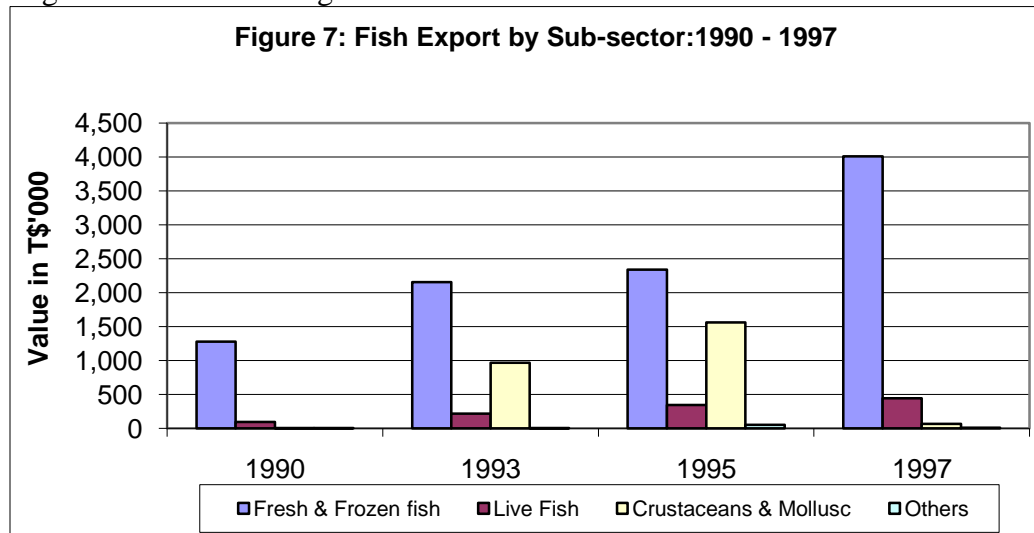
Tonga's fish exports were mainly to Hawaii, Japan, East Asia, American Samoa, Australia and New Zealand. These markets are segmented according to demand requirements. The East Asian market was specifically for the export of crustaceans & molluscs. American Samoa was mainly for tuna cannery. Japan was mainly for sashimi and Hawaii, Australia and New Zealand are mainly for both bottom fish and long-line. Figure 6 shows the share of these markets on fish exports from Tonga.



*Source: Statistics Department: Foreign Trade Report*

### Export by sub-sector:

The export of fresh and frozen fish dominates fish exports. Crustaceans & molluscs were in the mid-1990s increasingly becoming an important sector especially to new East Asian markets of Hong Kong, Taiwan and South Korea. However, in 1997 due to rapid decline in sea cucumber stocks, such as sandfish (*nga'ito*), white teat fish (*huhuvalu*) and black teat fish (*mokohunu*), the Government through the advice of the Ministry of Fisheries imposed a ten year moratorium starting in 1998. Refer to Figure 7.



Source: Statistics Department: Foreign Trade Report

### Export by institutional sector

The export of fish is dominated by the private sector. About 76% of the fish exports were from the private sector and the remaining 24% from quasi-government; the Sea Star fishing company.

There are only four major fish and marine exporters in Tonga.

Sea Star fishing company established in 1990 in which the Tonga Government is the main shareholder with three long-line fishing boats for tuna.

'Alatini Fisheries established in 1990 exports mainly snappers and high quality fish to Hawaii markets.

Maritime Project Tonga Limited established in 1980 sells bottom fish such as snappers and grouper as raw fish to Japan. They also assist the newly established long-line fishing company Capricorn in packing and marketing their fish to the Japanese sashimi market.

Capricorn Fishing company since its inception is the first long-liner, fishing exclusively for the sashimi-grade tuna for the Japanese market.



## **Financial returns to the fishermen from main export markets-Hawaii, Japan, Australia & New Zealand**

The analysis here looks at the expected financial returns that fisher-people received from the export of their fish to these markets. The results indicate that size of operators and types of fish exported have an impact on the returns.

In this analysis the medium-large operators are those using 40 ft boats and 30 ft are for small operators. The type of fish exported looks at Bottom-fish and Yellow-fin tuna long-line.

Financial returns to fisher-people, both for medium-large size operators and small operators show that Hawaii is a viable market for bottom-fish, but not tuna long-line.

The Japanese and Australian markets, on the other hand, fetches good returns for export of tuna, but not bottom fish.

New Zealand market is proven viable for both except medium-large bottom fish exporters.

Financial Returns from Fish export: For shipment of 1,000kg: T\$/kg

Size/type of fish	Hawaii	Japan	Australia	New Zealand
<i>Medium Operators</i>				
Bottom-fish	1.76	(0.56)	(1.35)	(0.90)
Long-line	(0.14)	1.99	1.98	1.40
<i>Small Operators</i>				
Bottom-fish	2.13	(1.24)	(0.05)	0.40
Long-line	0.10	1.96	3.08	2.37

## **Tonga Fisheries Export Issues: Barriers to development:**

In Tonga, due to remoteness from major markets and trading partners, the cost of freight and transport will always work against the competitiveness of the industry.

- Lack of air cargo space also has been a constraint. Changing airline schedules/routes and aircraft types represent significant threats to further development.
- Fiscal disincentive - impact that government customs and ports and services charges have on basic economics of tuna long-lining in Tonga. The structure of duties and ports and services charge – fuel taxation in Tonga attracts a 62.75% fiscal charge – compared to 25% for all other Pacific Island countries.
- Subsidies and concessions – new commercial investors qualify under the Industrial Development Incentive (IDI) Act for initial concessions – only for 2 years and do not cover diesel fuel – important element in commercial fishing.

- Fisheries export tax – Ministry of Fisheries impose a 0.5% export tax on fish export.
- Lack of understanding of the industry –Unlike the economics of agriculture and tourism industries – the fisheries industry is not necessarily tied to a fixed location. Fish stocks are highly mobile and so too are the vessels that hunt them. The ability of fishermen to unload their catch, refuel, and reprovision their vessels at ports far from home base represents a fundamental difference between fishing and other primary production activities.

Without addressing these issues the fisheries export sector in Tonga is unlikely to realise its full economic potential or to become an engine for Tonga's economic growth.

### ***Conclusions and Suggested Solutions:***

Tonga as a small island economy experiences trade deficits due to issues and problems associated with being small. Although the fisheries sector shows great potential, this paper highlights the fact that some issues will be beyond the capacity of small islands to be able to deal with in international trade.

The potential that fisheries offer is a reflection of these small islands surrounded by ocean; a proportion of 1sq km of land to more than a thousand sq km of ocean as in the case of Tonga.

The problem of transport infrastructure is of concern for trade from the Islands. This is also worse when the only National Airline- the Royal Tongan Airline was grounded last month.

New Zealand offers great opportunity for the fisheries in Tonga. New Zealand for many reasons can be looked at as transit for fish export from Tonga in the hope to alleviate transport problems.

The Tonga government, in response to the need of fisher-people offers a fuel subsidy beginning last year. The initial indication is that this subsidy only favours exporters and not necessarily small operators in the Industry. The small operators can now resort to using the facilities and expertise of the main exporters to export their fish instead of individuals trying to capture a share in the market. This will alleviate major problems faced by small operators of having to pay high freight costs.

The issue of Government allowing a fuel subsidy should be closely monitored for small island states such as Tonga whose major source of revenue has been derived from the benefit of indirect taxes on these commodities. There is a need to look at alternative means of ensuring that other means of collecting revenue exists.

The potential that the fish export sector offers Tonga is huge. Hence, the need to closely analyse the impact of barriers to trade to ensure that fisher-peoples' net returns improved. This discussion paper highlights the fact that unless these issues are dealt with the full potential fisheries have to offer will not be fully realised.

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