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**AGRICULTURAL EXPORT GROWTH  
AND ECONOMIC DEVELOPMENT for  
TONGA:  
THE QUEST FOR EFFICIENCY**

A thesis presented in partial fulfilment  
of the requirements for the degree of  
Master of Public Policy  
at Massey University, Albany,  
New Zealand

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**2008**

*I dedicate my thesis to my Lord and Saviour for without him, I would not have come this far nor would I have been able to write this thesis and endeavour to reach the wonderful plans that he has for my life.*

*Thank You Jesus.*

## **Abstract**

Neo-liberalism has become the dominant approach to economic development since the 1980s. Based on the economic principle of “efficiency”, the Washington Consensus and its supporters have avidly promoted the neoliberal orthodoxy as the ideal blueprint for the economic development of all countries in every region. However, as this thesis has discovered, the efficiency of public policy is weighed not by its conformity to an ideology but on how effective it responds to the economic and social problems of the population in question.

In recent years Tonga has endured severe economic shocks which have pushed its low growth economy to the brink of economic crisis. In response to this crisis, the Government has chosen greater economic liberalisation and private sector – led growth to lead the economy to recovery. The Washington Consensus and its international supporters claim that this is the best policy response for Tonga due to the belief that greater liberalisation leads to greater efficiency. This thesis however believes that at the current dire state of the economy, it is not enough for Tongan public policy to just conform to international views on efficient economic development but to ensure that its economic development policies address the economic and social needs of the general Tongan population.

With this in mind, this thesis investigated the role of agriculture in economic development. It identified that for an agriculture-based country such as Tonga, at low levels of growth, agricultural development is fundamental to long term economic growth. This research also revealed that agricultural growth is maximised through trade hence suggesting increased focus on agricultural export development. Based on these findings, this research project set out to verify the efficiency of Government agricultural policies by identifying the views of agricultural exporters and comparing these with Government approaches to agricultural export development in Tonga.

## **Acknowledgements**

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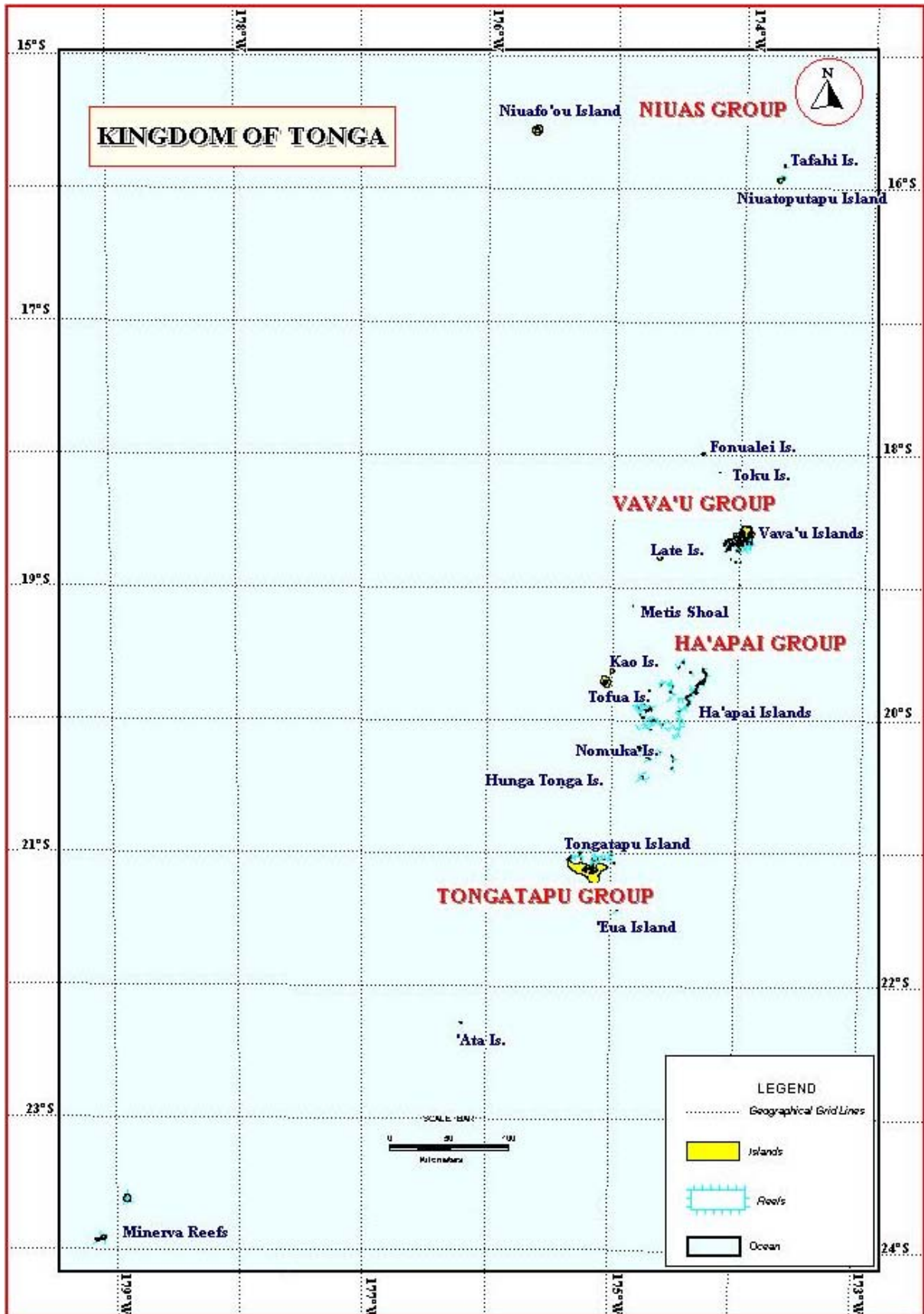
Last but not least, I would like to thank my family who have been behind me through all of this. Your love and prayers have made all of this possible.

# Table of Contents

<b>Abstract</b>	<b>i</b>
<b>Acknowledgements</b>	<b>ii</b>
<b>List of Figures</b>	<b>iv</b>
<b>Map of Tonga</b>	<b>v</b>
<b>Introduction</b>	<b>1</b>
<b>Chapter 1: The Dilemma: Tonga on the Verge of Economic Crisis</b>	<b>6</b>
<b>Chapter 2: A Proposed Solution: Effective Agricultural Development</b>	<b>22</b>
<b>Chapter 3: Research Methodology: Data Collection Process</b>	<b>43</b>
<b>Chapter 4: Agricultural Export Development in Tonga The Voice of the Tongan Agricultural Exporter</b>	<b>51</b>
<b>Chapter 5: Role of Government Government in Agricultural Export Development</b>	<b>68</b>
<b>Chapter 6: Disincentives of Incentives The Development License Incentive in Tonga</b>	<b>93</b>
<b>Chapter 7: Conclusion</b>	<b>125</b>
<b>Appendix 1</b>	<b>129</b>
<b>Appendix 2</b>	<b>131</b>
<b>Appendix 3</b>	<b>133</b>
<b>Appendix 4</b>	<b>135</b>
<b>References</b>	<b>136</b>
<b>Abbreviations</b>	<b>141</b>

## List of Figures

Fig.1	Estimated Government Revenue 2006/07 – 2007/08	11
Fig.2	Tonga’s Merchandise Trade 1997 – 2007	13
Fig.3	Declining Trend in Remittances	15
Fig.4	Tonga Tourist Receipts 1998/99 – 2004/05 (T\$ millions)	16
Fig.5	Value of Fish Exports 1999/2000 – 2004/2005 (US\$ millions)	18
Fig.6	Percentage Contribution of Agriculture to GDP (current prices)	20
Fig.7	Composition of Tongan Exports, 2007	30
Fig.8	Annual GDP (at market prices) 1993/1994 – 2003/2004	31
Fig.9	Average Annual Total Income per Household, by island group	39
Fig.10	Average Total Cash Income per Household, by island group	40
Fig.11	Average Total Non-Cash Income per Household, by island group	41
Fig.12	Size of Agricultural Land Parcels in Tonga	52
Fig.13	Number and Nature of Agriculturally Active Households	53
Fig.14	Survey Sample by Type of Agricultural Export	54
Fig.15	Problems that “Greatly Affected” Agricultural Export ventures in Tonga	55
Fig.16	Incapacity to Increase Capital Formation	56
Fig.17	Difficulties in Raising Capital Funds	59
Fig.18	Problems with Product Diversification	59
Fig.19	Most Effective Ways of Enhancing Agricultural Export Growth in Tonga	61
Fig.20	Protection of Small Local Businesses	63
Fig.21	Revival of the Development License Scheme	64
Fig.22	Market Research	65
Fig.23	Exporters’ Opinions of “No Government Intervention”	66
Fig.24	World Bank “Ease of Doing Business Index” 2005 - 2006	71
Fig.25	Development License Incentives and Beneficiaries	94
Fig.26	Government Revenue Foregone (T\$ millions)	100
Fig.27	Utilisation of the Development License Incentive 1978 - 2006	103
Fig.28	Development License Utilisation by Sector 1997 - 2006	104
Fig.29	Value of Industrial Investments with Development Licenses 2000 – 2006 (T\$m)	105
Fig.30	Amendments to Tonga’s Tariff and Excise Duty Rates	108



Source: Central Planning Department, 2005, pg i



# INTRODUCTION

Economic development is particularly challenging for small developing countries such as Tonga because unlike more developed countries, “most commodity and resource markets are highly imperfect, consumers and producers have limited information, major structural changes are taking place in both the society and the economy, and disequilibrium situations often prevail” (Todaro & Smith, 2009, pg.8). Moreover, as an archipelago of 171 islands situated in the South Pacific with a land mass of only 718 square kilometres and a population of 119,009<sup>1</sup>, Tonga is remote from world markets and its economy is based on its only resources of low lying fertile soils, marine life and its people. These limitations alone can impede Tonga’s economic development and expose the economy to significant economic shocks.

However, in recent years, the challenge to Tonga’s economic development has become even more severe. In 2005, Government capacity was significantly reduced after a public service strike demanded a 60 – 80 per cent salary increase. This was followed by civil unrest in November 2006 which destroyed over 80 per cent of the Central Business District in the capital, Nuku’alofa. Against a backdrop of world economic adversities, the effects of these events have pushed a country that had been in recession for several decades to the brink of economic crisis.

In the face of imminent need for economic recovery, history and the development experiences of other countries suggest that Tonga should consider its approach to economic growth so that it not only meets economic targets but that it also improves the welfare of the majority of its population. Reflection on these countries’ experiences in comparison to

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<sup>1</sup> As of July 2008

Tonga's social and economic dispositions suggest that while private sector led growth is an imperative approach to long term growth, an initial advancement in agriculture is necessary.

Agriculture has been for centuries, the principal industry driving Tonga's economic growth. In the past, it has taken the economy out of recession into one of the fastest growing economies amongst South Pacific Island countries. Moreover, agriculture is a central part of Tongan culture and social life. Not only is it a source of subsistence food supply for many Tongan families, particularly in rural areas, but it also contributes to enhancing family and community cohesion hence development.

Economic theories supported by the experiences of leading economies also suggest that the "fortunes" of agriculture is in agricultural trade. Given that Tonga's comparative advantage is in agriculture, the initial growth needed to further develop the country's fisheries, tourism and other service sectors is believed to depend on Tonga's agricultural export development. For this reason, this thesis proposes an increased focus on agricultural export development as an initial approach to Tonga's economic recovery and long term growth.

## **Objectives of the Study**

As a Tongan citizen who has witnessed the dire effects of the current economic situation on the welfare of Tongans, it is my hope to give back to my country by contributing to Government efforts for economic and social development. This research has led me to understand the fundamental role of agriculture to economic development and its significance to Tonga's economic and social growth. As such, I have conducted this research project not only to fulfil the requirements for my Master in Public Policy degree but also to reemphasize the role of agricultural development in Tonga's current economic development efforts.

In my previous post as Industrial Economist at the Ministry of Labour, Commerce and Industries in Tonga, I have had the privilege of working closely with members of the Private

Sector including many agricultural exporters. From these interactions, I have come to understand the significance of public policy not only to these businesses but also to the personal lives of those involved. Agricultural public policies not only affect individual agricultural ventures but they also have tremendous effect on the livelihoods of families and communities. However, whilst Government seeks to maximise efficiency through its policies, the views of many of these small scale businesses are scarcely sought hence represented in the very policies that affect them.

As such, it is my personal aim to bring forward the views of small scale agricultural growers and to use these views to verify the effectiveness of current Government approaches to agricultural export development. It is my hope that the findings of this research project will contribute to the development of effective policies that would enhance agricultural growth and improve the livelihoods of the majority of Tongans living in the country.

The key objectives of this research project are as follows:

- i) To discuss the role of agricultural export in economic development and its significance to Tonga
- ii) To identify the views of the average agricultural exporter on the impediments to agricultural export development in Tonga and how these can be resolved
- iii) To uncover the current roles of Government in agricultural export development and the underlying ideology that determines these roles
- iv) To compare the views of agricultural exporters with Government incentives for agricultural export development so as to verify their effectiveness and possible areas of market failure that needs to be addressed

- v) To discuss some of the effects of Tonga's liberalisation reforms on agricultural export development by examining the efficiency gains/losses of the removal of the Development License Incentive

## **Structure of the Thesis**

Before discussing the structure of this thesis, I would like to avoid possible ambiguity and misinterpretation by clarifying definitions of terms and what this thesis will cover. By agricultural exports, this thesis refers only to primary agricultural products excluding forestry and livestock. Agricultural exporters therefore are defined in this thesis as growers of primary agricultural products who are engaged in the export of their production.

Moreover, discussions in this thesis are largely based on development economic ideas and theories. As such, although this thesis comments on environmental issues relating to agricultural export development, it is not an environmental research project. This research also refrains from political discussions although political stability is considered a necessary prerequisite to economic growth.

Chapter 1 of this thesis discusses the current economic situation in Tonga. It aims at increasing the reader's understanding of the need for imminent economic recovery by discussing the short term and long term effects of the public service strike in 2005 and the November 2006 civil unrest. It also discusses Government's current approach to economic development and the status of the current key sectors set to drive Tonga's economic growth.

Chapter 2 is a discussion of the role of agriculture in economic development and the significance of agricultural export development to Tonga. This chapter aims at identifying the reasons why initial advancement in agriculture is necessary for the development of other sectors that will drive long term growth for the country. It also aims at discussing the

significance of agriculture to poverty alleviation and welfare improvements for the majority of Tongans.

Chapter 3 identifies the methodology used in this research. The purpose of this section is to illustrate how I have used the Mixed Methods research approach and the reasons why this approach was chosen.

Chapter 4 presents the results of the research conducted for this thesis. The aim of this chapter is to discuss the views of the agricultural exporter on the impediments to agricultural export development and how these issues can be resolved.

Chapter 5 discusses the role of Government in agricultural export development in Tonga and the underlying ideology behind Government's current approaches to growth. This chapter seeks to identify how Government intervention is crucial to agricultural export development yet also aims at uncovering how Government intervention can also exacerbate inefficiencies in the economy.

Chapter 6 analyses the abolishment of the Development License Incentive so as to identify the effects of this aspect of Tonga's trade liberalisation reform on agricultural export development. It also compares the results of this research with the incentives currently provided under the liberalised trade environment so as to identify possible market failures that could impede the development of the agricultural export industry.

Conclusions drawn on the discussions given are provided in Chapter 7.

The questionnaire, interview questions, information sheet and consent form used in this research project are attached as appendices.

# CHAPTER 1

## **The Dilemma: TONGA ON THE VERGE OF ECONOMIC CRISIS**

For several decades, the Tongan economy has experienced stagnant growth. According to its National Strategic Plan 2006/07 - 2008/09 (SDP8), “annual growth in real Gross Domestic Product (GDP) has averaged at 1.5 to 2 per cent over several decades” (Central Planning Department, 2006, pg.1). In effect, the rate of economic growth has been deteriorating since the turn of the century, dropping from 5.4 per cent in 1999/2000 to a lowest of 1.4 per cent in 2003/2004 (Central Planning Department, 2006, pg.13).

The most concerning consequence of this elongated state of low growth is its effect on national welfare. Studies have shown that a percentage of the Tongan population are experiencing difficulties in meeting their basic needs. Moreover, the distribution of the country’s income and wealth is mostly concentrated on a minority of high income earners. According to the Statistic Department’s 2000/01 Household Income and Expenditure Survey (HIES), “5 per cent of families in Tonga had expenditure levels below a Food Poverty Line of T\$703 per head per year, and 22 per cent had expenditure levels below a Basic Needs Poverty Line of T\$1,466 per head per year” (Central Planning Department, 2006, pg.2). Moreover, the HIES indicated that “10 per cent of households with the lowest income levels received just 1.6 per cent of total household income, whereas the 10 per cent of households with the highest income levels received 30.9 per cent” (Central Planning Department, 2006, pg.2). The study showed that it was remittances from relatives living overseas which improved the average incomes of the poorest households.

While these economic and social indicators revealed a growing need for Tonga to improve its economic performance, the unexpected events that would take place in mid-2005 and November 2006 would push Tonga to the verge of economic crisis and the pressing need for economic recovery became more crucial.

### **July – September 2005: Civil Service Strike and Pay Rise**

In July 2005, dissatisfaction with a 25 per cent increase in the civil service wage bill led to a six-week public service strike. To end the strike, the Government agreed to an average public service pay rise of 70 per cent. However, since the economy could not afford to immediately fund this pay settlement, public servants agreed to return to work but to be paid 60 per cent of their new salaries until July 2006. The remaining 40 per cent will then be paid in July 2006 backdating to 1 July 2005. The IMF estimated the cost of the pay settlement until July 2006 to equal 14 per cent of GDP (IMF, 2007, pg.4).

Consequently, since Government budget appropriations for public service salaries only covered around 32 per cent of the initial 60 per cent pay settlement for 2005/2006, Government was forced to tighten expenditures at the expense of government operations. In 2005, Government sought to produce sufficient funds for the pay settlement by cancelling T\$5.4 million worth of its capital and program expenditure; it froze 899 job vacancies which existed in 1 July 2005; and administrative expenses such as on machinery repairs and construction materials were cut. Moreover, since these budget cuts were still insufficient, Cabinet decided in February 2006 to “defer automatic salary increments, cease all acting appointments, and replace cash overtime payments with non-monetary compensation” (Central Planning Department, 2006, pg.18). However, when it was time to pay the remaining 40 per cent of the 2005/2006 pay settlement together with the full 100 per cent of the salary increases beginning from July 2006, Government fiscal disciplinary efforts were

proven inadequate. Government therefore opted for a civil service redundancy programme which ultimately downsized the public sector by 18 per cent (IMF, 2007, pg.4).

By the end of the 2005/2006 fiscal year, GDP had dropped from 2.3 per cent in 2004/2005 to 1.9 per cent (IMF, 2006, pg. 2). This decrease in production reflects the effect of reduced Government expenditure on the private sector (Central Planning Department, 2006, pg.18). The Ministry of Finance indicated that reduced Government expenditure has implications on industries such as manufacturing, transport and communications, financial and real estate (Ministry of Finance, 2008, pg.16).

In its 2006/2007 Budget Statement, the Ministry of Finance stated that “Government’s spending is in danger of running far ahead of the revenue it can collect” (Ministry of Finance, 2008, pg.8). It indicated that the Government “does not have sufficient revenue streams to fund the wage settlements on a continuing basis under current expenditure policies” (Ministry of Finance, 2008, pg.11). As such, the country was in danger of falling into an economic crisis where the economy would suffer from “higher inflation, higher interest rates, downward pressure on the exchange rates and the level of the foreign reserves and the government being unable to pay for its commitments” (Ministry of Finance, 2008, pg.8).

### **November 2006: Civil Unrest**

In early 2006, the Government believed to have “put in place the right policy instruments to drive growth” and anticipated 2007/08 to be a “prosperous” year (Ministry of Finance, 2008, pg.4). However, in November 2006 the economy took a further downturn as civil unrest led to a significant reduction in economic activity.

This “bout of violence” came about after the local democratic movement gained strength in demanding a reduction in the powers given to the King and the nobility. After the



movement's proposal for an increase in popular representation in parliament was met by Government rejection in November 16<sup>th</sup> 2006, democratic supporters took to the streets of the capital Nuku'alofa burning and destroying over 80 per cent of the Central Business District<sup>2</sup>. A survey by the Ministry of Labour, Commerce & Industries indicated that approximately 153 businesses were directly affected by the civil disorder and another 107 were indirectly affected. The estimated total cost of destruction to businesses was \$112 million (Ministry of Finance, 2008, pg.16).

The destruction and damages to businesses inherently caused significant setbacks to economic activity in the country. The Ministry of Finance reported that the Commerce and Tourism related industries were the main sectors affected by the riot. The Tourism industry saw a substantial drop in tourism receipts<sup>3</sup> as many tourists chose to cancel their trips to Tonga. The Ministry of Finance also reported reduced economic activity in Transport, Communication, Financial and Real Estate, and the Manufacturing sectors. In effect, studies by the International Monetary Fund indicated that the disruption to economic activity resulted in a 3.5 per cent fall in GDP (IMF, 2007, pg.4).

In addition, this deterioration in economic activity also directly affected the welfare of the resident population. Damages to businesses led to reduced employment. The survey by the Ministry of Labour, Commerce & Industries indicated that 678 jobs were affected<sup>4</sup>. Moreover, the supply of consumer goods was also affected as shops and supermarkets were looted and burnt down. This affected not only the supply of consumer goods in the main island of Tongatapu but more so in the smaller outer islands.

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<sup>2</sup> Targeted businesses were those owned by the Prime Minister and the Royal Family.

<sup>3</sup> The Ministry indicates that uncertainties in the country's political situation are expected to continue to limit the growth of tourism in Tonga.

<sup>4</sup> The survey by the Ministry of Labour, Commerce & Industries indicated that 678 jobs were affected. This figure however has been "revised down reflecting the resilience of the private sector and the willingness on the part of employers and employees to be flexible over hours of work and pay levels" (Ministry of Finance, 2008, pg.15).

By the end of 2006, the Ministry of Finance indicated that the economy was operating in “survival” mode hence the main theme of the 2006-2007 Budget became “stabilisation and survival” (Ministry of Finance, 2007, pg.7). Economic growth for 2006/2007 was predicted to be negative (-3 per cent to -4 per cent) and Government revenue was expected to significantly decline (Murray, 2007, pg.20). According to the 2006/07 Budget Statement, the reduced financial capacity of the Government was estimated to result in a T\$10 million fiscal deficit (Ministry of Finance, 2007, pg.7).

Furthermore, the central Nuku’alofa area was largely burnt and destroyed and the sight of the capital city was much closer to that of a war zone hence needing immediate reconstruction. However, studies by the Commonwealth Secretariat in 2007 indicated that “there is grave concern that the reduced activity in the private sector may constrain the reconstruction of Nuku’alofa over the next three to five years” (Murray, 2007, pg.17). The study showed that Government reserves which could have facilitated this reconstruction were used to “honour the commitment to meet public service salary increases and the replenishment of those reserves from privatisation initiatives has not yet materialised” (Murray, 2007, pg.17).

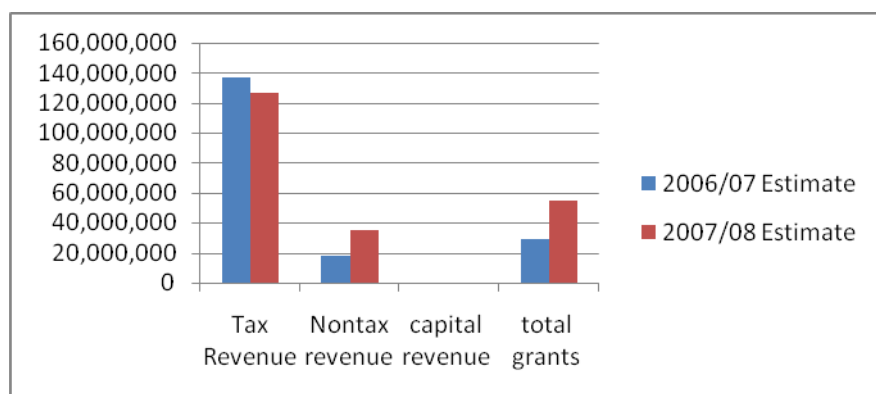
Government has therefore sought alternative sources of funding to facilitate the reconstruction of the capital city. However, the proposal that it has recently put forward has apparent consequences that could further the country’s economic turmoil. According to the Ministry of Finance, the Government proposes the reconstruction to be largely funded by a loan from the People’s Republic of China. Two percent of GDP is proposed to be set aside annually to service the loan beginning from 2013 for a period of 20 years. In consideration of the existing public external debt valued at 37 per cent of GDP, the proposed loan is expected to “heighten pressures on the budget and on the balance of payments as well as a sharp increase in risk of debt distress” (IMF, 2007, pg.7).

## Future Outlook for Tonga

Future projections for the Tongan economy are somewhat positive but the level of growth expected is still insufficient to secure the economy. Studies by IMF have projected real GDP growth to return to 1 per cent in 2007/08 (IMF, 2007, pg.6). It also predicted that recoveries in economic activity should bring about growth but at a “low trend rate of about 1 per cent a year” in the medium term. However, the economy is expected to remain “fragile” and “vulnerable” to significant risks. Initially, Tonga’s economy is highly vulnerable to external shocks due to physical and structural impediments such as its small size and remoteness from prominent markets. However, the economy’s vulnerability is now expected to further increase due to the effects of the recent political events.

As depicted in Fig.1, whilst the drop in economic activity reduced tax revenue, total revenue grew by 25.9 per cent, from T\$172.4 million in 2006/07 to \$217 million in 2007/2008 (Ministry of Finance, 2008, pg.33). This growth is indicated to be a result of increased efficiencies in the Revenue Services Department, increases in Government administrative fees and growth in grant revenues. Because of this growth, the Ministry of Finance indicates that Government is now able to reduce the budget deficit of 10 million in 2006-2007 to 4 million in 2007-2008.

Fig. 1: Estimated Government Revenue 2006/07 – 2007/08



Source: Ministry of Finance, 2008, pg.32

However, as illustrated in Fig.1, this growth in revenue is largely attributed to the significant increase in foreign aid following the 2006 civil unrest. The Ministry of Finance indicated that while non-tax revenues also increased by around 69.8 per cent, overseas grants grew by 111.1 per cent, from T\$25.9 million in 2006/07 to T\$54.8 million in 2007/08<sup>5</sup> (Ministry of Finance, 2008, pg.32). Most of this financial assistance was “provided by bilateral and multilateral organizations including AusAid, NZAID, ADB, World Bank, EU, Commonwealth Secretariat, Japan, People’s Republic of China, and Pacific Regional Organizations” to facilitate the country’s economic recovery (Ministry of Finance, 2008, pg.32). The extensive reliance of Government capacity on foreign aid suggests that potential fluctuations in aid revenues caused by downturns in the world economy could substantially push the Tongan economy into further crisis.

Moreover, in their need for recovery and reconstruction, Government and private sector have both increased borrowing. This is expected to only exacerbate the fragility of the economy. According to the Ministry of Finance, businesses are turning to domestic borrowing while Government will finance its budget deficit “through a combination of overseas concessional loans, roll-over of domestic bonds and sales of Government shares in some public enterprises” (Ministry of Finance, 2008, pg.33). The increasing recourse to borrowing, if not followed by significant growth from private sector activity, could further the country’s economic problems. As discussed before, studies conducted by the IMF have warned Tonga that given its current public debt level, further increases in the country’s total debt will increase the risk of “debt distress”. This risk could now be further exacerbated by Government’s sales of prominent public assets to help finance its budget deficits.

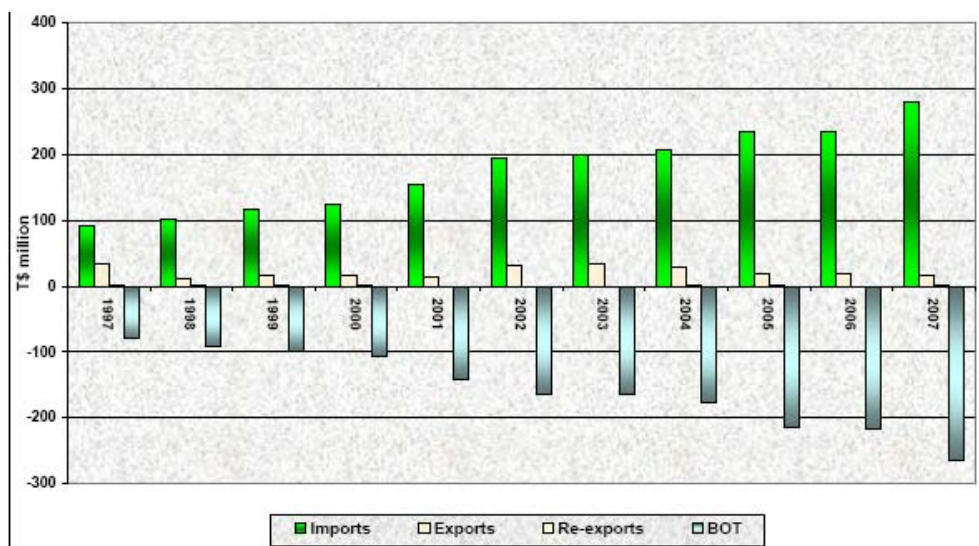
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<sup>5</sup> Apart from this aid, these organisations also donated around T\$46.2 million in-kind grants (Ministry of Finance, 2008, pg.32)

Moreover, the vulnerability of the economy is expected to be augmented by its high dependence on imports and its limited ability to finance this growing dependency. As depicted in Fig.2, Tonga’s demand for merchandise imports has been increasing at a rate that is far beyond its ability to pay for them. In 2007, as private sector sought to replenish losses from the 2006 civil unrest, imports increased from T\$138.8 million to T\$281 million in just the first four months of 2007. Conversely, export returns continued to decrease from T\$18.8 million in 2006/07 to T\$15.8 million over the same period of time.

In addition, the IMF revealed that Tonga’s official foreign reserves are predicted to be reduced to only 2.25 months of import coverage by 2010. This is indicated to be far too small a buffer for “a country subject to frequent shocks” (IMF, 2007, pg.7). Imminent increases in oil prices, food prices and the effects of downturns in the economies of trading partners such as New Zealand and the United States would only exacerbate the fragile state of the Tongan economy.

Fig.2: Tonga’s Merchandise Trade 1997 – 2007



Source: Statistics Department, 2008, pg.viii

In view of the insufficiency of export returns to cover its import demands, Tonga has largely depended on its high inflows of remittances to offset its balance of payments deficit. Recent

data however has shown that this source of revenue is also on a declining trend. Since the 1970's (when extensive emigration began) Tongans have depended on remittances for "half of (their) living standards and has contributed to around 40 per cent of GDP<sup>6</sup>" (IMF, 2007, pg.16). The Government's current SDP8 acknowledges remittances as an "important source of fairly stable income, offsetting the high vulnerability of the economy to natural disasters, crop diseases and fluctuations in world markets" (Central Planning Department, 2006, pg.2). However, as indicated in Fig.4, remittances have declined<sup>7</sup> since 2004 hence increasing the vulnerability of the economy to external shocks.

Moreover, the current trend in emigration poses possible threats to remittance flows. According to population projections based on the 1996 census, "remittance flows per head of resident population would fall" if net migration declined (Central Planning Department, 2006, pg. 34). As such, changes to immigration policies of the main host countries for Tongan emigrants – New Zealand, Australia and United States, could threaten remittance inflows hence expose the economy to further risks.

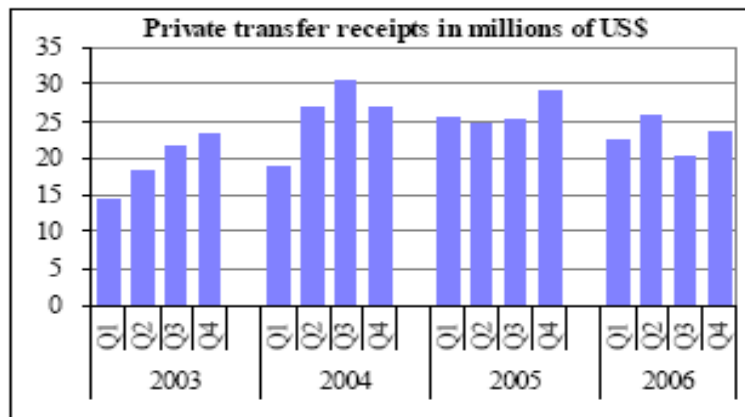
On the other hand, even if revenue from remittances recovers, the nature of remittances to Tonga poses uncertainties on its ability to sustain economic growth. Remittances to Tonga are largely for private households and its "primary use has been for consumption objectives" (Brown & Ahlburg, 1999, pg. 331). Apart from its implied inflationary impact, this consumption-boosting nature of remittances to Tonga suggests limitations on its ability to stimulate and maintain long-term economic growth for the country.

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<sup>6</sup> The Ministry of Finance stated that this dependence is enabled by the "ties of family, culture and church binding overseas Tongans into such a strong sense of community with those at home" (Ministry of Finance, 2008, pg.7).

<sup>7</sup> "Government market participants believe that decline only reflects change to transfers in kind and not nominal" (IMF, 2007, pg.16)

Fig.3: Declining Trend in Remittances



Source: IMF, 2007, pg.16

### Private Sector- Led Growth for Tonga

In view of the dire state of the economy, the Ministry of Finance indicates that Government's approach to economic development will be based on its SDP8. It stated that the "strategies of SDP8 are absolutely relevant during this difficult period" (Ministry of Finance, 2008, pg.4). One of the key objectives of SDP8 is to "promote sustained private sector-led economic growth" (Central Planning Department, 2006, pg.35). This is to be led by Tonga's key economic sectors of Agriculture, Tourism and Fisheries (Central Planning Department, 2006, pg.80).

The ability of the private sector to generate wealth and employment has caused it to be a successful tool used by Governments to stimulate growth and improve the well-being of their populations (Murray, 2007, pg.18). However, the performances of Tonga's key industries have not been up to standard for several years.

#### Tourism:

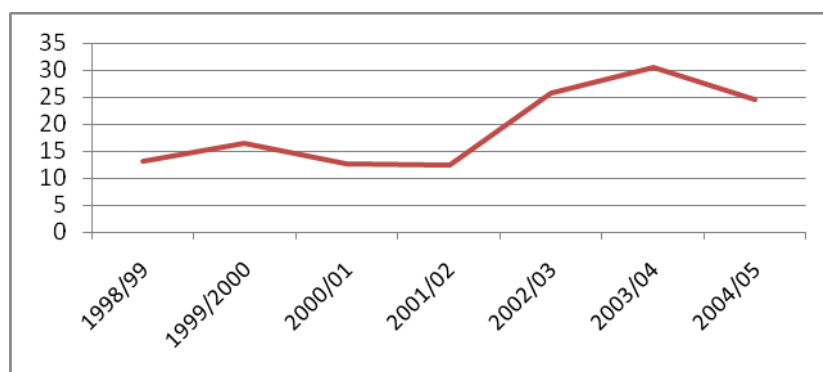
The tourism sector is considered a "priority" for the country's economic development based on the capacity of the industry to generate income and employment (Central Planning Department, 2006, pg.93). According to a 1997 study by the Tourism Council of the South

Pacific (that was based on gross tourist expenditures of T\$17 million) the economic impacts of tourism were to include the generation of approximately 2,200<sup>8</sup> local jobs and an overall government revenue of around T\$4 million (Central Planning Department, 2006, pg.93).

Although this study may be true for other neighbouring Pacific Island countries such as Fiji, it is yet to be true for Tonga. In 2003, approximately 56,894 tourists visited Tonga but only 44 per cent of them were “genuine tourists”<sup>9</sup> (Central Planning Department, 2006, pg.93). The remaining 56 per cent were either Tongans returning to visit friends and relatives or non-holiday visitors.

The problem with this trend in tourism is that these “non-genuine” tourists contribute less to the economy. Unlike regular tourists, visiting “Tongan” tourists often stay with relatives and friends hence failing to contribute to the key tourist facilities which generate income and employment for the country. As a result, Tonga has experienced high levels of tourist arrivals but declining tourist receipts. As illustrated in Fig.4, tourist receipts fell from T\$30.4 million in 2003/04 to T\$24.4 million in 2004/2005 and the average expenditure per tourist was recorded to have a percentage change of -32.6 per cent (IMF, 2006, pg.5).

Fig.4: Tonga Tourist Receipts 1998/99 – 2004/05 (T\$ millions)



Source: IMF, 2006, pg.5

<sup>8</sup> 1000 jobs were to be directly generated by tourism and an additional 1,200 were to be produced by indirect and induced effects of tourism.

<sup>9</sup> Genuine tourists refer to “holiday makers arriving by air, cruise ship or yachts” (Central Planning Department, 2006, pg.92).



The Ministry of Tourism believes that for Tonga to break this trend and become a competitive tourist destination, it needs competitively priced international and domestic air services and infrastructure as well as higher quality and priced accommodation (Central Planning Department, 2006, pg.94). These developments however involve costs that are beyond the capacity of the Government. In effect, the Government acknowledges that “substantial foreign investment” is required to put in place these necessary infrastructures. Since foreign investment cannot be controlled by the Government, the best it can do is to improve the investment environment and hope to attract genuine foreign investors. However, the fact that Tonga’s neighbouring island countries (who also share similar tourist attractions) are also competing for the same foreign investment may affect Tonga’s chances.

Moreover, efforts to attract foreign investors and tourists can be affected by damages to the outward image of the country and region. In 2006/2007, tourist arrivals in Tonga declined due to the effects of the civil unrest of November 16<sup>th</sup> 2006. The Ministry of Finance states that “general negative publicity in Tonga and social disorder in neighbouring islands will affect efforts to attract tourists to Tonga” (Ministry of Finance, 2008, pg.17). As such the future of tourism in Tonga still remains uncertain until political and social stability are established not only in Tonga but in its neighbouring islands as well.

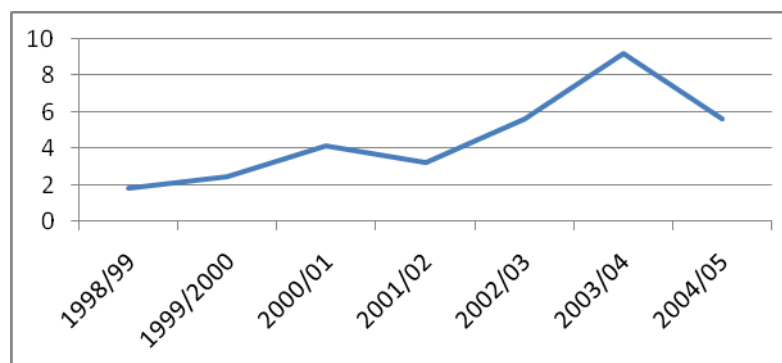
## **Fisheries**

The Tongan territory is largely ocean mass. Its maritime terrain of 640,050 km<sup>2</sup> provides Tonga with rich marine resources for consumption and commercial purposes. In effect, the fisheries industry has contributed 21 per cent of primary sector value added during 1993-2004 and has also experienced an average annual growth rate of 3.4 per cent. Growth in the industry enabled ensuing growth in fish exports during this period as well.

However, as illustrated in Fig.5, fisheries production has significantly dropped since 2003 due to a “depletion of fish stock, harsh weather conditions, lack of new technology, lack of cargo space in airlines for transport of fish, and lack of accessibility to credit” (Ministry of Finance, 2008, pg.18). In 2006, the Statistics Department reported that the total quantity of marine resource export continued to drop despite the increase in the value of fish exports in the global market (Ministry of Finance, 2008, pg.19).

Since much of the problem is caused by the impact of El Nino on the tuna catch, the escalation of global warming coupled with the limited resource capacity of local fishermen and the Tongan Government, leaves the future of this industry in uncertainty.

Fig.5: Value of Fish Exports 1999/2000 – 2004/2005 (US\$ millions)



Source: IMF, 2006, pg.16

## Agriculture

For many years, agriculture has been the principal sector of the Tongan economy. It accounted for a quarter of GDP and 60 per cent of merchandise exports<sup>10</sup> from 1998 to 2004 (Central Planning Department 2006, pg.80).

The ability of the agricultural sector to dominate production is largely due to the extensive involvement of Tongan households in this industry. The Agricultural Census 2001 revealed

<sup>10</sup> The Central Planning Department indicates that there are also substantial private exports of root crops to relatives and friends overseas which remain unrecorded (Central Planning Department, 2006, pg.80).

that 64.2 per cent of 15,738 households in Tonga were involved in agriculture; with 59 per cent in agriculture for subsistence consumption only, 38.6 per cent in subsistence and some commercial farming, and 2.4 per cent in commercial production only (Central Planning Department, 2006, pg.82). The involvement of Tongans in agriculture is enabled by tax allotments of 8.25<sup>11</sup> acres given by the Constitution to every Tongan male over 18. These allotments allow Tongans to not only feed their families but to also provide cash incomes for their households.

The potential of agricultural development to foster growth for Tonga was best illustrated by the squash trade. The trade of squash pumpkins to Japan is largely responsible for the significant economic growth in the 1990s. Since its introduction in 1987, squash has become Tonga's highest-earning export product, accounting for over 40 per cent of the country's total export earnings and more than 70 per cent of its total value of agricultural export during 1994 – 2000 (Felemi, 2001, pg.6). It helped to take the Tongan economy from negative growth in the 1980s to a height of 5.4 per cent growth in 1999 (ADB, 2005, pg. 361).

However, the 2007/2008 Budget Statement indicates that this export is also responsible for the deterioration in agricultural production and exports since 2003/2004 (Ministry of Finance, 2008, pg.17). The deterioration in squash export receipts is largely attributed to its dependence on a “narrow and variable window” in the Japanese market. Over the last five years, market shortages had boosted the price for squash up to US\$408/tonne (2003) hence significantly increasing export returns for Tonga. But since 2003, “Tongan squash export prices and volumes have both suffered because Tonga's production increased well beyond

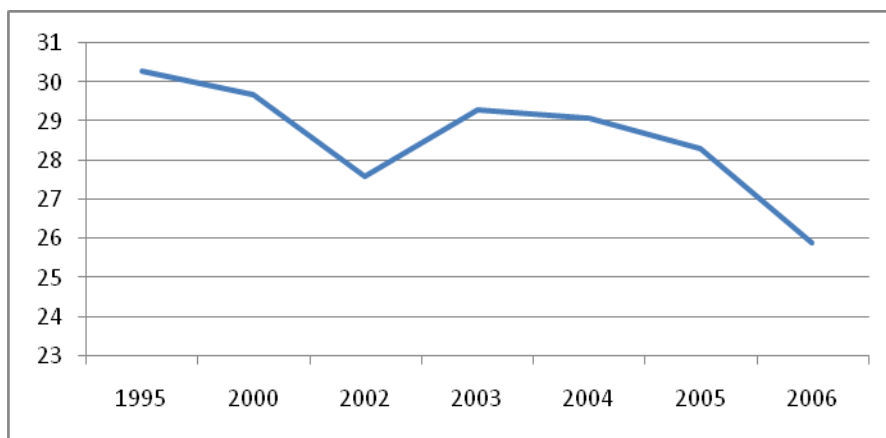
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<sup>11</sup> Due to population growth, these 8.25 tax allotments have been subject to further subdivision. “Over the past five years, about 200 acres of farmland have been given up for residential and other purposes” (Felemi, 2001, pg.5)

previous levels at the same time as the market contracted due to extended seasons for exporters in other countries” (Ministry of Finance, 2008, pg.16).

Although agriculture’s contribution to GDP has deteriorated in recent years as depicted in Fig.6, it still remains the highest contributor to the country’s GDP. This suggests that the decline in agricultural export returns is not an implication of any ineffectiveness in the industry’s ability to foster economic development but rather emphasises the danger of Tonga’s reliance on one crop in one country for nearly half of its export earnings (Storey & Murray, 2001, pg.299).

Fig.6: Percentage Contribution of Agriculture to GDP (current prices)



Source: ADB, 2007, pg.385

In view of the current state of the economy, the Government, as well as its bilateral and multilateral partners, agree that there is an urgent need for economic recovery. Although speculations on Tonga’s future economic status suggests slight improvements over the next few years, the decline in the country’s main sources of revenue coupled with the increased vulnerability of the economy to external shocks indicates that Tonga is not yet “out of the dark”. In effect, unless the private sector recovers to replenish losses to the economy and generate sustainable growth, the Tongan economy could easily fall further into crisis. Moreover, underlying political insecurities continue to threaten the future sustainability of the

economy. The effects of these unaddressed insecurities on the economy were clearly illustrated by the public service strike in 2005 and the civil disorder of 2006.

However, considering the significance of private sector led growth to economic development and its appointed role in Tonga's economic recovery, it is increasingly important for the country to consider how best to facilitate the growth of private sector industries. This need is even more imminent because, as identified in this chapter, the private sector in Tonga is not growing fast enough to generate the level of growth Tonga immediately needs.

Nonetheless, history reveals that it was private sector initiatives particularly in agriculture which took the country out of the recessions of the 1980s. This suggests that the private sector does have the potential to generate growth for Tonga and that agriculture is a promising industry to spearhead this private sector led growth. The next chapter seeks to explore this possibility and proposes that for Tonga to reach the full potential of private-sector led growth there needs to be an initial advancement in agriculture.

## **CHAPTER 2**

### **A Proposed Solution: EFFECTIVE AGRICULTURAL DEVELOPMENT**

“Every nation strives after development” therefore every nation has faced the dilemma of identifying how best to achieve economic development (Todaro & Smith, 2009, pg.109). Developing countries facing economic struggles therefore have the advantage of learning from history on how best to address their respective economic dilemmas.

Based on the success of private sector-led growth in the leading economies of the world today, the last chapter revealed that the Tongan Government has chosen private sector development to be its approach to economic recovery and long-term growth. However, the promotion of the private sector is a broad approach and the capacity of the Government and the private sector are at a level where it is fair to say that they cannot afford to make further mistakes. Tonga can reduce possibilities of making such mistakes by continuing to learn from history on how best to go about the approach of private-sector led growth while considering its economic and social contexts.

Based on development theories and the experiences of other countries in development, this chapter proposes that private sector led growth for Tonga should be initiated by an increased focus on agricultural development. This however does not in any way disqualify the significance of tourism and fisheries to Tonga’s economic growth. Nonetheless, as will be discussed in this chapter, the development of these sectors requires high levels of capital investment which can be financed by returns from agriculture. The ability of the agricultural sector to generate this initial growth for Tonga is supported by three key reasons taken from

development theories and experiences of other countries in development. They are: 1) agriculture's fundamental role in economic development; 2) Tonga's comparative advantage is in agriculture; and 3) developments in agriculture is essential to poverty alleviation and welfare improvements for the general Tongan population.

## **Fundamental Role of Agriculture in Economic Development**

Many developing countries, in their 'need for 'rapid economic growth', have sought to promote industrialisation as quickly as possible (Ghatak, 2003, pg.19). Even though agriculture played a fundamental role in pre-industrial economic development, it is now viewed as a "backward" industry. In effect, transitions from agriculture are considered to be an indication of a country's economic development. The reduction in the Tongan Government's budget appropriations for agriculture in comparison to those for the manufacturing and service sectors suggests that Tonga could be following this ideology as well.

According to the Tonga Budget Papers for the current financial year (2007/2008), appropriations for the Ministries responsible for Tourism (0.7% in 06/07; 1.5% in 07/08) and industrial development (1% in 06/07; 1.1% in 07/08) have increased albeit slightly while that for the Ministry responsible for agricultural development has decreased from 3.7% in 2006/07 to 2.9% in 2007/2008 (Ministry of Finance, 2008, pg.45). Although these changes are but minimal, it does suggest that the decline in the performance of the agricultural sector since the late 1990s may have inclined policymakers to lose confidence in the capacity of the agricultural industry to foster growth. However, this section aims to highlight that agriculture has a fundamental role in economic development and that it is still the industry to lead growth for Tonga.

## **Mechanism of Economic Development**

The emphasis of industrialisation in development theories mostly stems from the unanimous association of economic development with rapid aggregate economic growth. During the 1950s and 1960s, the Linear Stages Model indicated that such growth could be achieved through the correct combination of investment, savings and foreign aid (Todaro & Smith, 2009, pg.112). Later in the 1970s, this theory was largely replaced by the Structural Change Model which saw economic development as a structural transformation from “traditional subsistence agriculture to a more modern, more urbanised, and more industrially diverse manufacturing and service economy” (Todaro & Smith, 2009, pg.115).

However, while theories on the correct mechanism for growth continue to evolve and fail to reach a consensus, history reveals that developing countries which overlooked agricultural development and reverted to rapid industrialisation did not always achieve the levels of growth they expected. In his book, “The Role of Agriculture in Economic Development”, Kjeldsen-Kragh indicated that because of their industrialisation approach to development, the post-war GDP per capita levels in China, India and countries in Africa, were either at the same level or below the level of GDP per capita in Western Europe 250 years before (Kjeldsen-Kragh, 2007, pg.392). Moreover, other developing countries which focused on “rapid economic development” through industrialisation reached their targeted levels of GDP growth but the living standards for most of their populations largely remained unchanged.

On the contrary, history is filled with examples of countries where agricultural growth was the underpinning factor behind their development. In effect, agriculture fostered growth in Western Europe, United States, Japan, Taiwan, China and Korea (World Bank, 2007, pg.35). Moreover, “the relatively strong agricultural growth during the last three to four decades” in



South East Asia “is generally considered one of the factors underlying the ‘economic miracle’ in the region” (World Bank 1993 cited in Akiyama & Larson, 2004, pg.15).

These failures and successes in development point to a fundamental role of agricultural development in economic growth. In his book, “Introduction to Development Economics”, Ghatak claims that what developing countries fail to see is that the development of an industrial industry “cannot be built without a basis” (Ghatak, 2003, pg.19). He states that “such a basis is usually provided by a well developed agricultural sector which would supply ‘wage goods’, food, raw materials, labour, markets and foreign exchange for the development of both the industrial and agricultural sectors” (Ghatak, 2003, pg.19). This claim is supported by the fact that agricultural development “underpinned growth in Western Europe, US, Japan, Taiwan and Korea” as tax revenue from the agricultural sector was used to finance industrialisation and reduce food prices (World Bank, 2007, pg.35).

As such, structural transitions and industrialisation are necessary aspects of development as proven by the economies of Japan and Korea. However, their experiences suggest that these transitions can only be effective if they are preceded by high levels of agricultural growth. Kjeldsen-Kragh states that according to history, agricultural development preceded industrial growth and that agricultural development “paved the way for industrialisation from both the demand and supply sides” (Kjeldsen-Kragh, 2007, pg.292). On the demand side, agricultural growth triggered increases in consumer income which in turn opened up new markets and industries. On the supply side, agriculture not only maintained a low priced food supply for the increasing urban population but it also “delivered labour, capital and entrepreneurship” (Kjeldsen-Kragh, 2007, pg.292).

These developments suggest that the effective development of the fisheries<sup>12</sup>, tourism and other service sectors in Tonga depends on initial agricultural growth. As discussed in the previous chapter, the tourism and fisheries sectors in Tonga have high potentials in generating growth for the country. However, for these industries to reach their income generating potentials there is imminent need for high levels of capital investment. The economy however is currently incapable of financing such developments. The fundamental role of agriculture in the development of leading industrial countries suggests that it is initial growth in agriculture that could facilitate the development of these industries.

Moreover, the Structural Change Model was criticized for its depiction of the agricultural sector as insignificant in the development process. In their book titled “Economic Development”, Todaro and Smith, stated that one limitation of this model is its emphasis of patterns rather than theories. In so doing, “this approach runs the risk of leading practitioners to draw the wrong conclusions about causality – in effect, to “put the cart before the horse” (Todaro & Smith, 2009, pg. 121). Todaro and Smith claim that this emphasis on patterns has led many developing country policymakers to wrongly neglect the agricultural sector when in fact agriculture underpinned growth in many of today’s leading economies.

An example of this sequence of growth, that is closer to Tonga, is that of its neighbouring island of Fiji. Fiji is one of the leading economies amongst Pacific Island Nations with an average GDP growth rate of 9.7 per cent (Fiji Islands Bureau of Statistics, 2008, pg.27). It has become one of the leading tourism destinations in the Pacific and its manufacturing sector has also grown; contributing around 12 per cent of GDP (Fiji Islands Bureau of Statistics, 2008, pg.27). However, history reveals that “sugarcane farming<sup>13</sup> drove the development agenda” in Fiji since the 1970s until its recent replacement by the tourism and the

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<sup>12</sup> Although fisheries is a primary industry, it is a relatively capital intensive industry which requires high levels of investment that the country cannot afford

<sup>13</sup> Fiji however not only grew sugarcane but also locally manufactured sugar.

manufacturing sectors (Narayan & Prasad, 2004, pg.2). This sequence of growth again highlights that it is necessary for agricultural development to precede developments in tourism and manufacturing because, as proven in Fiji, initial growth in agriculture is needed to facilitate the development of these other industries.

Moreover, studies by the World Bank revealed that at low levels of economic development, agriculture is the main industry to foster growth particularly for agriculture-based countries (World Bank, 2007, pg.26). This suggests that for Tonga, whose main industry is agriculture and whose economy is currently at low levels of growth, agriculture may be the main industry to foster its economic development.

However, after decades of agriculture – led development, Tonga has yet to experience the transitions that have successfully accelerated growth for Fiji. Given that Tonga’s comparative advantage is in agriculture, the question now is “where has Tonga gone wrong in its agricultural development?” Criticisms of the Linear Stage Model argue that “necessary structural, institutional, and attitudinal conditions” must be primarily established in order “to convert new capital effectively into higher levels of output” (Todaro & Smith, 2009, pg. 115). This suggests that the failure of high agricultural growth in the 1990s to facilitate the development of other industries is not due to an incapacity of the agriculture sector to foster development. However, it could arise from insufficiencies in the “structural, institutional and attitudinal conditions” needed to facilitate the effective conversion of agricultural growth. The recent Government reforms discussed in Chapter 5 addresses some of these issues.

Moreover, the agricultural sector may have yet to generate the level of growth needed to effectively develop other sectors. A report from the National Export Strategy Committee indicated that Tonga has been unable to maintain agricultural growth over the past decades because of its inability to diversify and spread out market risks over a variety of agricultural

products to different markets (Afeaki, 2007, pg.4). As such, in removing such impediments to the development of the industry, the agricultural sector can generate and maintain the high levels of growth needed to facilitate the future developments of its fisheries, manufacturing, tourism and other service industries.

## **FORTUNES OF AGRICULTURAL TRADE**

The neo-classical counterrevolution approach which dominated scholarly thinking on development since the 1980s indicate that growth in the agricultural sector can be accelerated through trade (Todaro & Smith, 2009, pg.127). Moreover, studies by the World Bank indicated that developing countries such as Tonga, which have economies that are dominated by agriculture, can maximise the benefits from this industry through trade (World Bank, 2007, pg.26). Even in developed countries such as the United States, studies revealed that the “economic fortunes of agriculture depend on exports” (Tweeten, 1992, pg.1). As such, the key to accelerated agricultural growth is through agricultural export development. Nonetheless, economists indicate that for Tonga to gain from agricultural trade, it must have a level of comparative advantage in agricultural production.

### **Tonga’s Comparative Advantage**

Comparative advantage largely stems from a country’s factor endowments. Neo-classical trade theorists claim that a country can gain from trade if differences in factor endowments make it more efficient to produce a good in one country rather than the other (Appleyard et.al, 2008, pg.97). The islands of Tonga are largely raised coral islands with “very fertile soils derived from volcanic ash”<sup>14</sup> (Felemi, 2001, pg.4). The land base is relatively flat with few areas of steep slopes hence favourable for agriculture. Moreover, being situated between 15° and 23.5° S and 173° and 177° W, the climate is “generally warm” – 16° C to 23° C; with

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<sup>14</sup> Of the total land area of 27097ha, 27008ha is considered to be productive land (Tonga Agriculture Census, 2001)

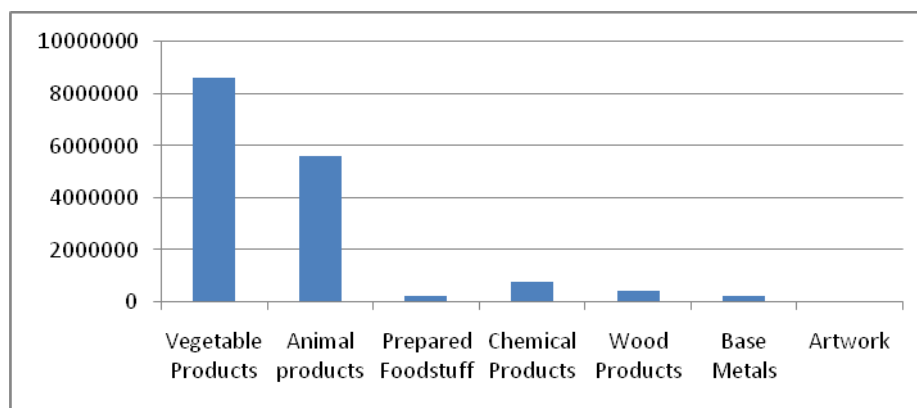
“usually adequate rainfall” and a “cooler climate in winter months that enables the production of a wide range of crops” (Felemi, 2001, pg.4).

Due to Tonga’s favourable natural endowments, agriculture has been a central part of Tongan life since its early history. As such, through centuries of refinement, Tongans have developed agricultural skills that have even been considered superior amongst the islands in the Pacific since prehistoric times. On his arrival in Tonga, the French explorer, Dumont d’Urville stated that “the order in which the plantations of sugar, kava, bananas, yams, etc, were kept, the extreme neatness of the inhabitants, especially the skill...with respect to agriculture, it is certain that the inhabitants were able to acquire a superior position compared to all the other peoples of Polynesia” (cited in Van Der Grijp, 2004, pg.73). In recent history, during a bilateral trade mission of Fiji manufacturers in 1970, Fiji was considered to “fast becoming the industrial centre of the South West Pacific area” and Samoa was considered to have a future in the cattle industry, while Tonga was deemed to become the “Garden of the South Pacific” (Pittman, 1970 cited in Van Der Grijp, 2004, pg.74).

Amongst other agricultural exports, one of the best examples of Tonga’s comparative advantage in agriculture is its squash trade to Japan. Despite the fact that it is a foreign crop, squash pumpkins were found to grow well in Tonga’s low lying fertile soils during its cool season of July – August. Tonga was therefore able to supply the Japanese market during its winter months of November – May as Japan’s winters were too cold for squash production. Tonga’s comparative advantage in the production of squash pumpkins resulted in significant economic gains for Tonga. Since its commencement in 1987 the squash export industry has not only become a major foreign exchange earner for Tonga but the highest earning export product in Tongan history (Felemi, 2001, pg.6).

As depicted in Fig.7, Tonga’s comparative advantage in agriculture is reflected in the consistent dominance of agricultural exports in Tonga’s merchandise trade for many decades. Even today, the 2007 Foreign Trade Report reveals that Tonga’s main exports are agricultural products such as vanilla, squash pumpkins, kava, coffee, root crops, pele and taro leaves, sea weed, nonu juice, sandalwood and coconuts (Statistics Department, 2008, pgs.285 – 289).

Fig.7: Composition of Tongan Exports, 2007



Source: Statistics Department, 2008, pg.3

Economists believe that trade prices cause a country to specialise in the product in which it has a comparative advantage (Appleyard et.al, 2008, pg 35). The consistent dominance of agricultural exports indicates relative specialisation in agricultural production hence suggesting that Tonga’s comparative advantage lies in agriculture. As such, Tonga’s highest gains from trade would be from agricultural trade.

## Roles of Agricultural Trade

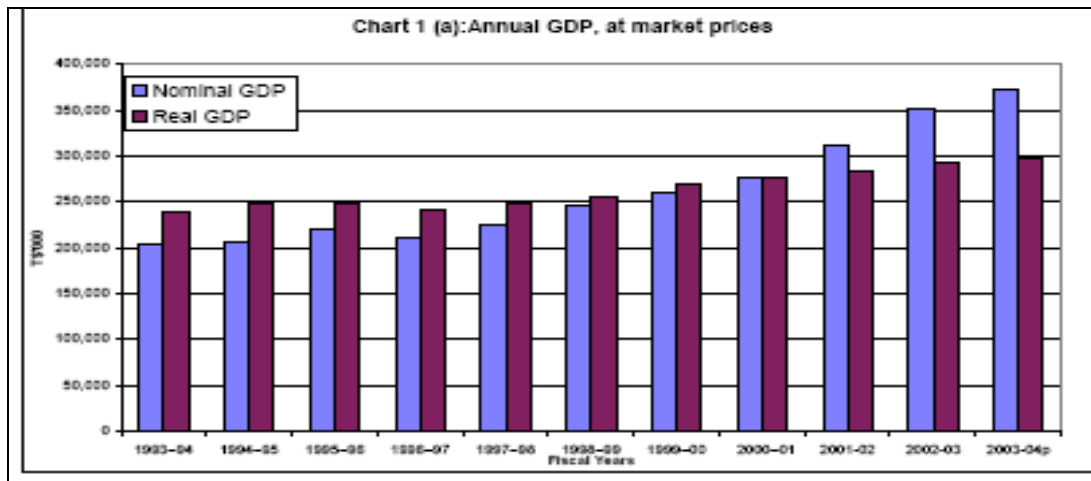
### I. Economic Roles:

#### i) *Production Gains and Contribution to GDP*

Neo-classical trade theorists believe that trade offers higher prices than autarky which in turn provides an incentive for producers to increase production (Appleyard et.al, 2008, pg.93). As depicted in Fig.8, Tonga experienced relatively higher levels of GDP growth during 2003-

2004 due to increases in agricultural production. This growth was triggered by price increases for Tonga’s main exports of squash, vanilla and root crops during the same period<sup>15</sup> (IMF, 2006, pg.19). This correlation indicates that trade causes production levels at autarky to increase hence resulting in higher levels of economic growth for Tonga.

Fig.8: Annual GDP (at market prices) 1993/1994 – 2003/2004



Source: Statistics Department, 2005, pg.7

Conversely, a fall in trade prices would reduce economic growth as producers are no longer economically motivated to maintain or increase production. The 2007/2008 Budget Statement indicated that agricultural production has declined since 2003/2004 due to the volatility of export prices particularly squash prices (Ministry of Finance, 2007, pg.17).

*ii) Contribution to Foreign Exchange Reserves*

Growth in exports also increases foreign exchange reserves which in turn help improve Tonga’s exchange rate and inflation rate. Growth in agricultural exports in 2003/2004 helped increase foreign exchange reserves from US\$22.5 million in 2002 to US\$52.5 million in 2004 (ADB, 2007, pg.389). The growth in foreign exchange reserves not only helped cover Tonga’s increasing cost of imports (refer to Fig.2) but it also caused the Tongan Pa’anga to appreciate against the currencies of its major trading partners in 2003/2004. This was after

<sup>15</sup> Squash prices: 2002/2003=US\$408/tonne; 2003/2004=US\$ 324/tonne  
 Vanilla prices: 2002/2003=US\$148/kg; US\$133/kg  
 Root crops: 2003/2004=US\$457/kg

three years of consistent depreciation in the Tongan currency<sup>16</sup> (Ministry of Finance, 2007, pg.25).

On the other hand, weak growth in agricultural exports caused by the decline in squash trade has contributed to the drop in foreign exchange reserves since 2003/2004 (ADB, 2007, pg.389). Correspondingly, the Tongan currency has depreciated against the currencies of its importing countries. During the first nine months of fiscal year 2006/2007, the Tongan pa'anga depreciated against the NZ dollar by 12.2 per cent and against the Australian dollar by 5.3 per cent (Ministry of Finance, 2007, pg.26).

The depreciation in the Tongan currency consequently results in price rises for imported goods hence increasing the cost of living for Tongans. Since over 40 per cent of imports are comprised of consumer goods (foodstuffs comprised 31.9 per cent of total imports in 2004/05), increases in the cost of necessities such as food and fuel would trigger welfare setbacks particularly for low-income earners (IMF, 2006, pg.20).

Moreover, the increasing cost of imports also poses adverse effects on commercial agriculture as machinery and raw materials are mostly imported. The consequent increase in production costs could therefore affect the ability of local agricultural farmers to achieve economies of scale in agricultural export production.

In view of the high cost of imports, many have suggested a move towards import substitution. However, the small size of Tonga's domestic market "severely limits import substitution possibilities" (Worrell, 1992 cited in Briguglio, 1995, pg.1616). Tonga had in fact attempted the import substitution alternative in the 1980s and early 1990s by establishing a Small Industries Centre which offered low-priced land to manufacturers so as to boost

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<sup>16</sup> Although the currency appreciated in 2003/2004 due to increases in foreign exchange reserves, inflation grew from 10.7per cent in 2002/03 to 11.8 in 2003/04 as a result of "high oil prices and increased taxes on tobacco and alcohol" (Central Planning Department, 2006, pg.14,15)



manufacturing. However, by the end of the decade, most of these businesses had closed down due to high production costs.<sup>17</sup> These manufacturers found that it was impossible for local products to compete with cheaper imports<sup>18</sup>.

## **II. Social Roles:**

### *i) Contribution to Employment Generation and Equitable Income Distribution*

As discussed before, the most significant social impact of agricultural development is on employment. Agriculture not only provides a source of livelihood for Tongan households, hence contribute to poverty alleviation, but it also contributes to equitable income distribution across genders by providing women with a source of income.

Traditionally, the role of women in the household does not include agriculture and therefore many resort to non-income earning roles at home. However, agricultural trade has given women a role in agricultural development. A report by the Director of Agriculture in 2001 stated that women are not only “involved in the production of raw materials for handicraft making” but they have been directly responsible for the success of the vanilla and squash industries. Many are also responsible for the sale of agricultural produce at the local market and others are “in charge of the marketing of family produce overseas” (Felemi, 2001, pg.6).

Moreover, the higher price offered by trade not only increases production but it also increases wage rates for agricultural labourers. In effect the growth in export production resulted in increasing demand for labourers. This has in turn triggered a three-fold increase in wage rates for farm labour over the past decade (Felemi, 2001, pg.7). Although this significant rise in the cost of labour increases production costs for producers, it also conversely helps low

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<sup>17</sup> Most inputs were imported and domestic demand was insufficient to cover production costs

<sup>18</sup> Successful import substitutes however exist in the agricultural sector. Potatoes are now largely produced locally hence reducing costs of importing more expensive potatoes from overseas markets.

income earners, particularly in rural areas, to better overcome the increasing cost of living caused by inflation.

### **III. Environmental Roles:**

Traditionally, Tongan agriculture specialises in the production of root crops with over 2/3 of agricultural land devoted to root crop farming. Dominant root crops include yams, giant taros, sweet potatoes and cassava. These crops are planted according to a traditional sequence which ends with a period of fallowing. This system has proven to be successful in maintaining soil fertility (Felemi, 2001, pg.5).

On the other hand, mono-cropping for commercial agriculture has increased pressure on the environment and the traditional system of agriculture. The traditional system regulates cultivation to be “interspersed with relatively long periods of fallow (which) has been used successfully to maintain soil fertility” (Felemi, 2001, pg.6). However, “mono-cropping” such as squash farming requires high use of fertilizers and pesticides which not only reduces soil fertility but also harms water systems <sup>19</sup>(Van Der Grijp, 2004, pg.151). Moreover, in an effort to maximise returns, farmers have increased periods of cropping and reduced fallowing periods. This has exacerbated soil infertility as reduced fallow periods prevent soils from replenishing its nutrients.

Unlike traditional agricultural export crops that involve a number of crops to be planted at the same time (such as kava, vanilla, root crops) mono-cropping agriculture requires high levels of mechanisation and extensive land clearing. This type of farming has consequently caused soil erosion in many parts of the country (Felemi, 2001, pg.6). This poses significant environmental problems particularly for low-lying raised atolls such as the main island of Tongatapu.

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<sup>19</sup> There are no evidential data of this yet.

However, despite the fact that commercial agriculture can have a large environmental footprint, the “solution is not to slow agricultural development but to seek more sustainable production systems” (World Bank, 2007, pg.2). The traditional system of agriculture and the cultivation of traditional crops and cash crops which do not involve mono-cropping have proven to have less adverse effects on the environment. As such, a revision of Tonga’s production systems could reduce environmental externalities of commercial agriculture and enable Tonga to reap the full rewards of agricultural development.

## **Agriculture and Poverty Alleviation**

### **Poverty Alleviation in Economic Development**

Despite the social development connotation of growth, the shift to monetarist economic policies in the 1980s has largely focused development efforts on the sole improvement of a country’s aggregate economic performance. Economic development is therefore viewed as “the capacity of a national economy, whose initial economic condition has been more or less static for a long time, to generate and sustain an annual increase in its Gross National Income (GNI) at rates of 5 per cent to 7 per cent or more” (Todaro & Smith, 2009, pg.14). Accordingly, a country’s rate of development has largely been measured by its rates of growth in income per capita because it indicates “the ability of a nation to expand its output at a rate faster than the growth rate of its population” (Todaro & Smith, 2009, pg.14).

However, with this approach, efforts to improve the welfare of the majority of the population have been significantly reduced. The monetarist belief is that improvements in per capita growth would “either ‘trickle down’ to the masses in the form of jobs and other economic opportunities or create the necessary conditions for the wider distribution of the economic and social benefits of growth” (Todaro & Smith, 2009, pg.14). However, during the 1970s

many developing countries which “experienced relatively high levels of per capita income growth...showed little or no improvement in employment, equality, and the real incomes of the bottom 40 per cent of their populations” (Todaro & Smith, 2009, pg. 15).

The suggested failure of monetarist policies to improve the welfare of the majority can be attributed to the monetarist assumption that individual citizens have equal rights and liberties that would allow all members of society to equally reap the benefits of economic growth. In the real world however, citizens exist in a society with “unequal social relations of power, wealth and status” (Duncan, 2004, pg.184). These social structures often restrict the poorer percentage of the population from having a share of the country’s economic growth. As such, although the monetarist approach brought about a level of aggregate economic growth for many countries, it was a development that was accompanied by increasing poverty and inequality for the majority of their populations.

Many have therefore come to consider this type of growth as insufficient, hence requiring a redefinition of economic development. Dudley Seers reasserted the meaning of economic development by stating that “the questions to ask about a country’s development are therefore: What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned” (Seers cited in Todaro & Smith, 2009, pg.15).

Moreover, theorists have come to acknowledge that the use of per capita income as an index for economic development does not “guarantee the fulfilment of human needs in areas such as education, health care, longevity, or personal freedom” (Siggel, 2005, pg.2). Conversely, the Human Development Index published by the United Nations Development Programme

(UNDP) measures these aspects of welfare and is therefore acknowledged as a more comprehensive indicator of economic development<sup>20</sup>.

In view of the new definition of economic development, the approach to economic growth for Tonga should focus on improving the welfare of the majority of its population. Accordingly, since private sector development is Tonga's selected approach to growth, it is important for Government to consider how it can facilitate the development of local industries whilst reducing levels of inequality, unemployment and poverty in the country. This paper believes that given the aspects of poverty in Tonga and its cultural and natural contexts, agricultural development is fundamental to poverty alleviation hence long term economic development for the country.

### **Poverty in Tonga**

According to the Human Development Index, the quality of life in Tonga is relatively high. The 2007-2008 Index rated Tonga as a "high development country"; 55<sup>th</sup> out of the 177 countries studied (UNDP, 2007, pg.229). In effect, Tonga was ahead of all other Pacific Island Countries such as Samoa and Fiji hence reflecting relatively high levels of life expectancy (72.2 years) and educational achievement (literacy rate of 98.9 per cent and gross enrolment ratio in all levels of education of 83 per cent) (UNDP, 2007, pg.229).

However, although Tongans may not experience levels of extreme poverty, many Tongans face financial hardships that often reduce their ability to meet some of their basic needs. According to the Participatory Assessment of Hardship Study (PAH) by the Tonga Statistics Department in 2003, levels of hardship in Tonga include "poor access to transportation to remote outer island communities; lack of access to essential services such as good quality and

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<sup>20</sup> The HDI however includes GDP per capita as one of the factors determining a country's level of economic development. Subsistence agriculture however, which plays a significant role in the development of small subsistence economies, is not calculated into GDP statistics because it is excluded from the United Nations System of National Accounts' "production boundary" (Waring, 1988, pg.64).

regular water supply, primary health care; and poor education” (Central Planning Department, 2005, pg.10). The Central Planning Department also identified from its SDP8 consultations with members of the civil society, that households face increasing hardship due to the lack of a regular income to meet obligations to family, church and community (Central Planning Department, 2006, pg.22).

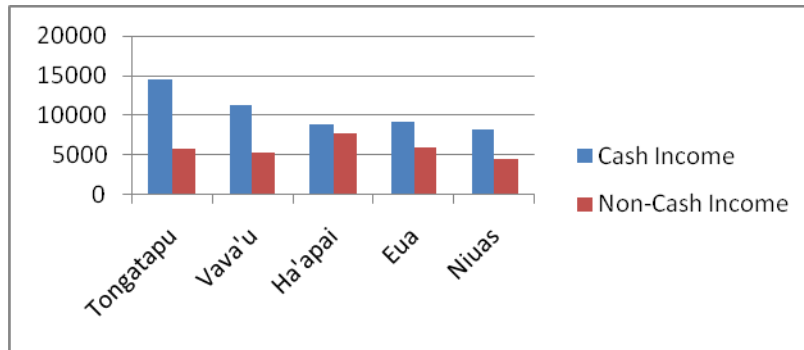
Families experiencing these levels of hardship are identified to be largely concentrated in the rural parts of the main island and in the smaller outer islands. According to the 2001 HIES, the highest percentage of households living below the Statistic Department’s Basic Needs Poverty Line (T\$1466 per head per year) was found to be highest in rural Tongatapu (28 per cent) and lowest in the capital, Nuku’alofa (19 per cent) (Central Planning Department, 2006, pg.100).

Moreover as depicted in Fig.9, families in the more urban main island of Tongatapu earn higher levels of cash income. According to the 2001 HIES by the Statistics Department, “wages and salaries account for almost 30 percent of total income in Tongatapu, but for less than 20 percent in the other island divisions” (Statistics Department, 2002, pg.7). Moreover, households in urban Tongatapu also receive higher cash incomes from remittances and bank loans than elsewhere in the country (refer to Fig.10).

Rural families however earn lower levels of cash incomes and the main source of this cash income are from the sales of their produce (refer to Fig.10). This information suggests that families in the urban areas not only have higher levels of cash income but their source of income is more stable hence allowing them to better meet their needs and improve their living standards. Cash incomes for families in the rural areas however would be more unstable since their main source of cash income would be highly prone to market fluctuations and the effects of unexpected natural disasters on production. As such, rural families would

be more likely to face occasional difficulties in meeting basic needs such as electricity, water, education and transportation – which requires cash in payment.

Fig.9: Average Annual Total Income per Household, by island group



Source: Statistics Department, 2002, pg.7

In view of the nature of poverty in Tonga and the location of the poor, an effective approach to poverty/hardship alleviation in the country is one that would focus on improving the living standards of rural families particularly those that do not have stable wage earning employments.

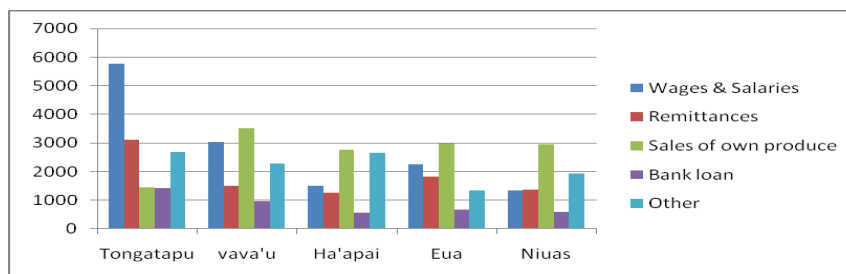
However, it is important to note that although studies indicate that poverty and hardships are concentrated in rural areas, it does not necessarily mean that the “quality” of life in the urban areas is better than that in the rural parts of the country. While urban families may have more stable cash incomes, rural families enjoy a life that is free of pollution, involves less crime, greater family and community cohesion, and higher moral values. However, these fundamental aspects of life are not always considered in censuses or national income surveys or even the HDI. This is largely because these qualities, as Marilyn Waring, stated in her book, “Counting for Nothing”, are “items of no value” because they are not traded in a private market hence making it difficult to identify their worth (Waring, 1988, pg.12). Because they are considered as “items of no value”, the erosion of these qualities consequently becomes the opportunity cost of economic development.

However, a depletion of these qualities would not only exacerbate welfare setbacks but would also cost the Government significant amounts of money to correct these negative externalities. It is therefore necessary that whilst efforts are made to improve the living standards of the rural poor, Government should acknowledge these important aspects of rural life and help conserve them.

### Poverty Alleviation through Agricultural Development

Another important aspect to consider in poverty alleviation for Tonga is the fact that the rural poor are largely agricultural families. According to the 2001 Agriculture Census, agriculturally active families in the outer islands ranged from 82.9 – 90.5 per cent (Statistics Department, 2002, pg.1). Accordingly, as Fig.10 and Fig.11 reveal, these rural families are relatively more dependent on agriculture for their food supply and cash incomes than families in urban areas. In effect, 82 per cent of families in the outer islands (compared to 7 per cent in Tongatapu) depend on the sale of their local agricultural produce for their cash incomes and over 86 per cent rely on their own subsistence agricultural farms for their food supply (compared to 11% in Tongatapu) (Statistics Department, 2002, pg.7). Given the location of the poor and what they do best, agricultural development is imperative to reducing levels of poverty/hardship in Tonga.

Fig.10: Average Total Cash Income per Household, by island group



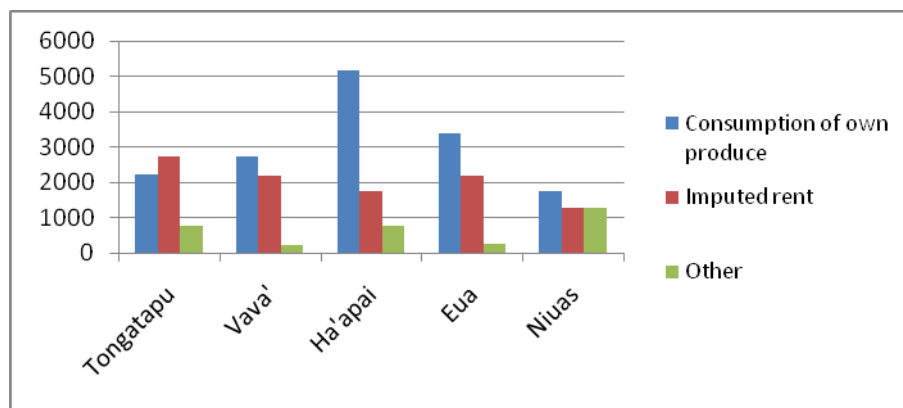
Source: Statistics Department, 2002, pg.7

However, in using agriculture to improve the living standards of the rural poor, it is necessary to also acknowledge the role of agriculture in these subsistence economies. The centrality of



agriculture to the lives of rural communities is not only in its role of food supply through subsistence agriculture, but it also enhances family and community networks as well as preserve traditional values and morals through customs of giving gifts and tributes. It also contributes to land conservation through the preservation of traditional farming methods. A failure to consider the importance of rural systems of agriculture and subsistence agriculture may lead Tonga to not only greater economic and social problems but also environmental problems such as the effects of squash production that Tonga is now witnessing<sup>21</sup>.

Fig.11: Average Total Non-Cash Income per Household, by island group



Source: Statistics Department, 2002, pg.7

Nonetheless, the hardships rural communities are facing stems from insufficient cash incomes thus indicating that the approach to poverty alleviation would involve economic solutions. Developments in agriculture alone may be insufficient to totally eradicate rural poverty, but the rural nature of agriculture suggests that rural-based agricultural growth is a fundamental first-step to reducing hardships in Tonga.

Moreover, agriculture's ability to contribute to poverty alleviation stems from Tonga's land tenure system. As indicated in Chapter 1, the Tongan Constitution designates tax allotments of 8.25 acres to individual males over the age of 18 with the purpose of ensuring that Tongan

<sup>21</sup>The Ministry of Agriculture, Food and Forestry identified that due to the intensive production of squash, there has been a recording of higher levels of land erosion, loss of soil fertility and chemical condensation in underground water systems and coastal waterways. This problem will be discussed in further details in Chapter 5.

families are self sufficient in food supply (of traditional staples and vegetables) and to provide families with a monetary source of livelihood. Moreover, the Constitution does not allow the sale of land hence land allotments are hereditary by law thus allowing generations of Tongans to earn a living from agriculture<sup>22</sup>. Poverty alleviation in Tonga therefore is to enhance the ability of Tongans to capitalise on this resource so as to raise the living standards of their families.

In view of the discussed attributes of agriculture in Tonga, there is significant potential in agriculture to lead Tonga's economic recovery and long term growth. This chapter has identified that this potential of agriculture to foster growth can be reached through agricultural trade as Tonga's comparative advantage is in agriculture. Nonetheless, whilst agricultural export development can enhance growth and reduce hardships particularly amongst rural families, the choice of export product and farming method can have significant externalities which could further exacerbate poverty and hardships in Tonga. In view of these externalities, it is necessary to ensure that the approach to agricultural export development upholds the "uncounted" qualities of rural life and acknowledges the roles of agriculture in rural communities. Moreover, in consideration of the fragility of Tonga's resources, production systems with the least environmental footprint would better preserve Tongan's ability to reap the full benefits of its comparative advantage in agriculture.

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<sup>22</sup> "Many of the traditional 8.25-acre tax allotments are being sub-divided into smaller units as a means of fulfilling land demand. It is estimated that over the past five years, about 200 acres of farmland have been given up for residential and other purposes" (Felemi, 2001, pg.5)

# CHAPTER 3

## Research Methodology DATA COLLECTION PROCESS

### Choice of Research Method

Literature on research methods indicate that the “research design and methods selected for a research project should be guided by the need to develop a coherent methodology that provides the best hope of answering the projects’ objectives and questions” (Woolley, 2008, pg.2). The choice of research method therefore was driven by the main objectives of this research project:

- i) To discuss the role of agricultural export in economic development and its significance to Tonga
- ii) To identify the views of the average agricultural exporter on the impediments to agricultural export development in Tonga and how these can be resolved
- iii) To uncover the current roles of Government in agricultural export development and the underlying ideology that determines these roles
- iv) To compare the views of agricultural exporters with Government incentives for agricultural export development so as to verify their effectiveness and possible areas of market failure that needs to be addressed
- v) To discuss some of the effects of Tonga’s liberalisation reforms on agricultural export development by examining the efficiency gains/losses of the removal of the Development License Incentive

In view of these objectives, I wanted a research method that would increase my understanding of the role of agriculture in economic development as well as identify how the

average Tongan agricultural exporter and the Tongan Government perceive agricultural export development in Tonga. I also wanted to verify the theories and ideologies behind agricultural public policies by testing these ideas against the views of the average agricultural exporter in Tonga. The “mixed methods research” approach which involves an integration of quantitative and qualitative data collection and analyses appeared to be most promising in fulfilling these tasks and meeting the objectives of this research project.

This integrated approach is indicated to be effective in gathering diverse perspectives on a topic because it addresses “different aspects of the research problem, in order that a fuller picture might be developed” (Woolley, 2008, pg.2). This method is also effective in “inductively” and “deductively” identifying and verifying meanings attributed to a phenomenon. This is because the quantitative approach is “characteristically indirect and reductive; the qualitative approach is characteristically indirect direct and holistic” (Woolley, 2008, pg.2). The combined strengths of each of these approaches allows the mixed methods research to use different levels of inquiry to address the “what and the how or why, providing a way of considering structures and processes, establishing relationships between variables and exploring the reasons behind those relationships” (Bryman cited in Woolley, 2008, pg.2).

### **Structure of the Research:**

This research project included three research methodologies. The first phase of the research involved a preliminary literature review which was mostly conducted using the Massey University Library at Albany and internet sources. This phase helped design my research project and the questions to be used in the quantitative and qualitative surveys.

The second phase of the research was conducted in Tonga on the main island of Tongatapu. In this stage of the research, a comparative approach was developed using both a quantitative

questionnaire survey and qualitative individual interviews. The questionnaire survey focused only on agricultural exporters and the qualitative individual interviews involved both agricultural exporters and senior officials from Government Ministries.

These surveys were conducted close together in time and this proved to be highly advantageous for the research. The quantitative survey was found to highly complement the qualitative approach as information from the questionnaire survey was effective in opening up new questions for the qualitative research. The combination of these methods helped provide a more complete picture of the agricultural export industry in Tonga and its development.

The final stage of the research involved a more in - depth literature review again using the Massey University Library and internet sources. The Ministry of Labour, Commerce and Industries and the Ministry of Agriculture, Food and Forestry in Tonga also contributed by providing reports relating to agricultural export development in Tonga. This final phase enabled an in-depth exploration of the role of agriculture in economic development. It also helped explain information received during the field research hence augmenting the set of data primarily collected.

I believe that the combination of all three research methods has been effective in identifying how Tonga can improve its approach to agricultural export development.

### **Quantitative Questionnaire Survey**

The main goal of this part of the research was to collect data which can be statistically analysed in order to test existing ideas on agricultural export development in Tonga.

#### ***i) Participants:***

Since the objective of the research was to test existing ideas using the perspectives of agricultural exporters, the participants in this quantitative survey were limited only to

agricultural exporters. Within the group of agricultural exporters, the research aimed at identifying the perspectives of the average agricultural exporter in Tonga. The definition of the average agricultural exporter is a small holder farmer who is involved in the export of his products; who owns and farms a maximum of 4 acres of farmland; and is of Tongan nationality.

The research initially set out to use this definition as the criteria for the selection of participants for this survey. However, when reaching Tonga, I discovered that it was impossible to access information on the names of these exporters because there was no publicized list of agricultural small holder farmers in Tonga. Since the research's low risk ethic notification prohibited the use of confidential Government databases, and time and financial<sup>23</sup> limitations of the research restricted a thorough preliminary research on the smallholder agricultural exporters in Tonga, a different criterion was ultimately designed for the selection of survey participants. This criterion required the participant to be: involved in agricultural farming and export, located in the main island of Tongatapu (as I did not have the time or finances to travel to the outer islands of Vava'u, Ha'apai, 'Eua and Niua), and of Tongan nationality.

***ii) Selection of the Survey Sample:***

In accordance with the low risk- ethics notification, participants for the questionnaire survey were not able to be selected from confidential Government records even though this source would have offered a more complete list of agricultural exporters in Tonga. Instead, the survey sample was selected using the "Tonga Investment Directory" and the Telephone Directory Yellow Pages.

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<sup>23</sup> The total funding for the research amounted to NZ\$1000 provided by NZAid.

The Tonga Investment Directory is a public bi-annual magazine issued by the Ministry of Labour, Commerce and Industries. The Ministry however indicates that the list of companies given in this Directory is incomplete as it is comprised mainly of registered companies taken from the Ministry's company registration database. Many small scale agricultural export farms are not registered companies and privately export their products to informal markets overseas. The Directory therefore does not include all small scale agricultural export ventures.

Because of the nature of agricultural export in Tonga and the research's low ethic risk notification, it was impossible to identify the total number of agricultural exporters operating in the country. However, this research sought to use a survey sample that was as representative of the total population of agricultural exporters in Tonga as possible. The final survey sample therefore was selected from the combination of the lists of agricultural export companies in the Tonga Investment Directory and that given in the Telephone Directory Yellow Pages. The combination of these lists provided a survey sample of 45 agricultural export companies.

***iii) Survey Questions:***

The questions for this survey were chosen in accordance with the objectives of the survey but were also curtailed to meet the research's low risk ethic notification. Survey questions were focused on the respondents' views on impediments to agricultural export development and their proposed solutions. Respondents were given a number of suggested answers to rate according to how appropriate they were to their respective ventures. They were requested to rate these answers based on a scale of 1 to 5 with 1 being the least factor. Respondents were also given an opportunity to provide answers if they were not given in the questionnaire.

In accordance with the Massey University Code of Ethical Conduct for research involving human participants, questions which could potentially harm participants or is insensitive to the respondent's privacy, age, gender, social class, income, and educational background were omitted. Respondents were also free to choose not to answer a question if they did not wish to do so. The questionnaire package included an information sheet and a consent form which informed the participant of the purpose of the survey, the confidentiality of information disclosed during the survey, and the participant's right to withdraw from the survey. The questionnaire package was submitted for the approval of my thesis supervisor before the actual research began and is attached as appendices in this thesis.

Moreover, due to cultural customs of respect to elders, initial verbal contact was made with the respondent, prior to the distribution of the questionnaires. This initial communication allowed me to introduce myself, the purpose of my research, and the reasons why I had included the participant in my survey sample as well as confirm the respondent's participation in the survey.

In consideration of the busy schedules of the participants and the possibility that they may not participate if the questionnaire was too long, the survey questions were reduced to only three main questions. All questions as well as the information sheet and consent forms were translated into Tongan to reduce possibilities of misunderstanding or lack of understanding amongst respondents.

***iv) Survey Response Rate:***

Out of a total survey sample of 45, the response rate was 23. In consideration of the fact that the number of businesses who submitted their questionnaires was a little more than half of the total survey sample suggested that this was still a respectable response rate. I believe that the



answers provided by these 23 businesses are not only highly representative of the survey sample but also of the total population of agricultural exporters in Tonga.

### **Qualitative Survey – Individual Interviews**

#### ***i) Participants:***

Unlike the quantitative survey, this method was an inductive approach that sought not only to understand the views of both agricultural exporters and Government officials on the subject of agricultural export development, but also to use this information to give meaning to the statistical data from the analyses of the questionnaire survey.

Agricultural Exporters were randomly chosen from the participants in the Quantitative Survey with one person to represent each of the main agricultural export sectors in Tonga. Four agricultural exporters were able to be interviewed but due to some of these farmers practicing greater product diversification, each of the main agricultural export sectors was able to be represented in this survey sample.

Government officials interviewed included senior officials from the Ministries involved in agricultural development in Tonga. These senior officials were selected based not only on their executive positions in their respective departments hence their role in public policy making, but they were also selected based on their involvement in agricultural export development in Tonga. Four senior officials were therefore interviewed; two from the Ministry of Labour, Commerce and Industries and two from the Ministry of Agriculture, Forestry and Food. My previous employment in the Ministry of Labour, Commerce and Industries helped me select the most appropriate officials for this survey.

#### ***ii) Participant Interviews:***

The interview questions were again designed according to the research objectives and were approved by my supervising professor prior to the actual research. Questions for agricultural

exporters were similar to those used in the quantitative survey as I was hoping to use information from the interviews to explain the results of the quantitative survey analysis. Information from the quantitative survey also served to open new points of discussion during the interviews hence successfully augmenting total data collected. Although set questions were prepared for the interviews, this survey was an interactive process with new questions being formed during the interviews and involved participants asking questions as well.

In accordance with the Massey University Code of Ethical Conduct for research involving human participants, interviewees were required to give their informed consent to participate in the interview, be taped and were also given the right to withdraw from the interview whenever they wished. All interviews were taped and no interviewee withdrew from the survey. These tapes were later transcribed for ease of analysis.

All interviews were conducted during work hours since this was the only time where participants were available. Appointments were made with each participant before interviews were conducted.

The use of the mixed-methods process was successful in collecting a relatively complete set of data where the perspectives of respondents were not only effective in increasing understanding of the research topic but also helped verify the existing theories and public policy ideologies relating to the topic. The survey results and analyses are discussed in the next chapters.

## **CHAPTER 4:**

### **Agricultural Export Development in Tonga**

#### **THE VOICE OF THE TONGAN AGRICULTURAL EXPORTER**

As discussed in the previous chapter, the fortunes of agriculture are in agricultural trade. Tonga has the ability to accelerate agricultural growth through trade because its comparative advantage is in agriculture. However, in the past decade Tonga's agricultural export returns have greatly deteriorated hence exacerbating the economic setbacks that the country is currently facing. This deterioration reflects the inability of the local agricultural export industry to withstand external shocks and fluctuations in the market particularly because of its overdependence on one product in one location for most of its export returns.

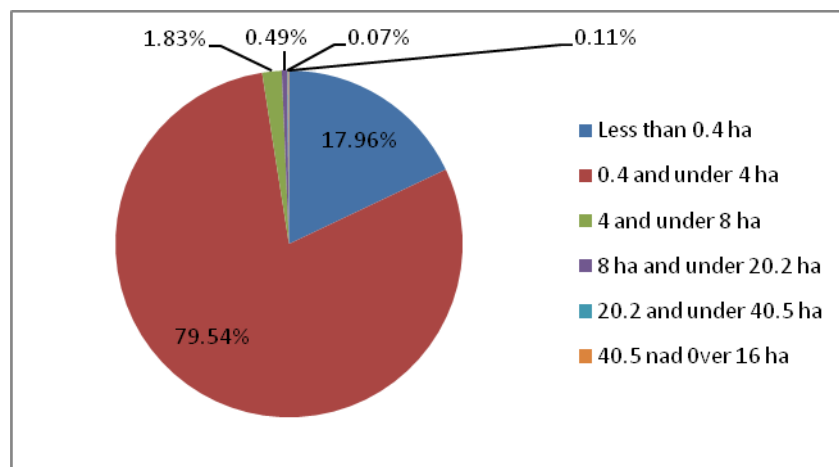
Nonetheless, the urgent need for economic recovery suggests that it is necessary for Tonga to move forward in not only identifying the impediments to the development of the agricultural export industry but to remove these impediments. In view of agriculture's potential to foster growth for Tonga, the removal of these impediments would only spearhead the economic recovery and growth that the country urgently needs. .

This chapter discusses the constraints to agricultural export development from the viewpoint of the average agricultural export farmer. In doing so, this paper hopes to reveal the productivity constraints in the agricultural export industry and to later match these views to the efforts of policymakers in enhancing the growth of this industry.

## The Average Tongan Agricultural Exporter

The average Tongan agricultural farm is relatively small-scale. As illustrated in Fig.12, the most recent Agricultural Census (2001) indicated that almost 80 per cent of agricultural holdings in Tonga are small-scale with land parcels ranging from 0.4 to 4 hectares (Ministry of Agriculture, 2001, pg.1). The same census also identified that out of the total agricultural land area of 27,096 hectares, 99.07 per cent (26,843 hectares) are owned by individuals or households (Ministry of Agriculture, 2001, pg.1). As such, the average Tongan agricultural farmer is a small-holder farmer who privately runs his farm by himself or with his family.

Fig.12: Size of Agricultural Land Parcels in Tonga

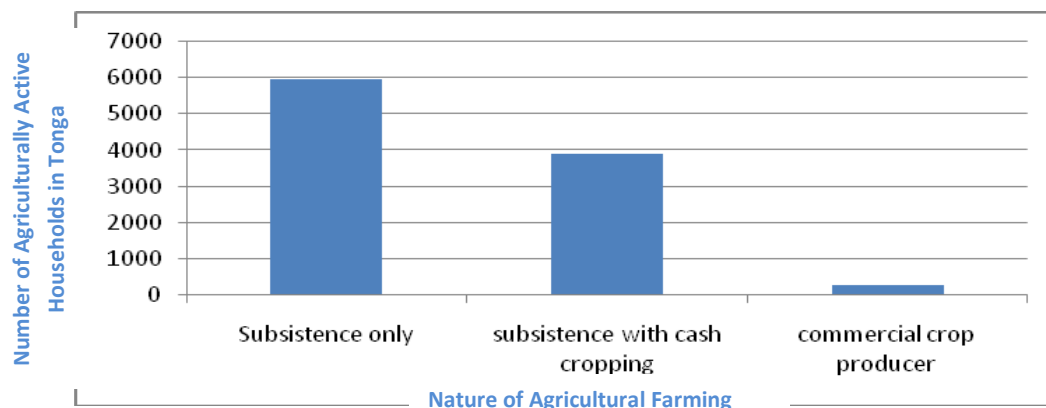


Source: Ministry of Agriculture, 2001, pg.1

According to the Agriculture Census, 69.5 per cent of the 15,738 households surveyed, were agriculturally active households (Ministry of Agriculture, 2001, pg.1). Nonetheless, as illustrated in Fig.13, out of the 10,102 active agricultural households, 59 per cent are subsistence-only farmers. In effect, only 2.4 per cent are pure commercial agricultural farmers. This reveals that agriculture in Tonga is still very much in a subsistence level and only about 41 per cent of agricultural households in Tonga are likely to be involved in agricultural export.

However, the introduction of the squash trade in the early 1990s showed that subsistence farmers in Tonga can alternately transition to commercial agriculture. The Ministry of Agriculture indicated that over 2000 farmers joined the agricultural export industry in the early years of the squash industry. Based on this accelerated transition from subsistence to commercial agriculture, the Ministry claims that Tongan “growers can and will respond to export market opportunities when the returns are attractive” (Felemi, 2001, pg.6). Similarly, when the returns are not attractive, Tongan agricultural exporters are most likely to return to subsistence farming. This was proven when the initial 2000 squash export farmers recorded in the early 1990s was reduced to only 780 farmers in 1999 when the unit price for squash deteriorated (Felemi, 2001, pg.6). As such, subsistence farmers in Tonga can interchangeably shift to and from commercial agriculture for export depending on the favourability of export returns.

Fig.13: Number and Nature of Agriculturally Active Households



Source: Ministry of Agriculture, 2001, pg.1

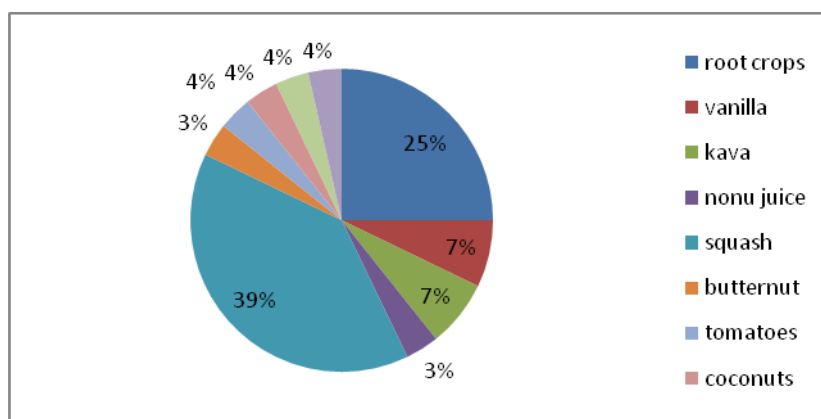
However despite the unstable and small-scale nature of Tongan agricultural exporters, the Ministry of Agriculture in 2000 revealed that “small growers are more efficient in their production” (Felemi, 2001, pg.13). In effect a survey by the Ministry of Agriculture in 2000 revealed that in squash production “large farms with closer spacing were severely infested by diseases and as a result achieved lower yield per unit area” (Felemi, 2001, pg.9). Meanwhile,

the same survey identified that “small size farms (up to 8 acres) achieved better yield with a mean exportable yield of 5 tons per acre as compared to the larger farms, which only achieved an average exportable yield of 3.5 tons per acre (Felemi, 2001, pg.9).

In his book, “Introduction to Development Economics”, Ghatak also claims that “small farms are more efficient on the basis of per acre productivity” (Ghatak, 2003, pg.243). He states that larger farms operate on a “capitalistic system of cultivation” hence marginal productivity is based on wages. However, smaller farms which are predominantly family-based has a marginal productivity that is not limited to wages. This is because many of the labourers in family-based small farms are family members who would be more than willing to work extra hours for less or even for no wages at all. In view of this claim and the tightly-knitted family system in Tonga, particularly in rural areas, there is a greater chance for Tonga to achieve higher productivity through the development of the small-scale agricultural farm.

Accordingly, it is important to include the views of these small-scale farmers in the development of policies regarding the development of agriculture and agricultural export in Tonga. In an effort to bring forward the voice of the agricultural farmer, this chapter discusses the opinions of a variety of Tongan agricultural exporters on the development of the agricultural export industry in Tonga.

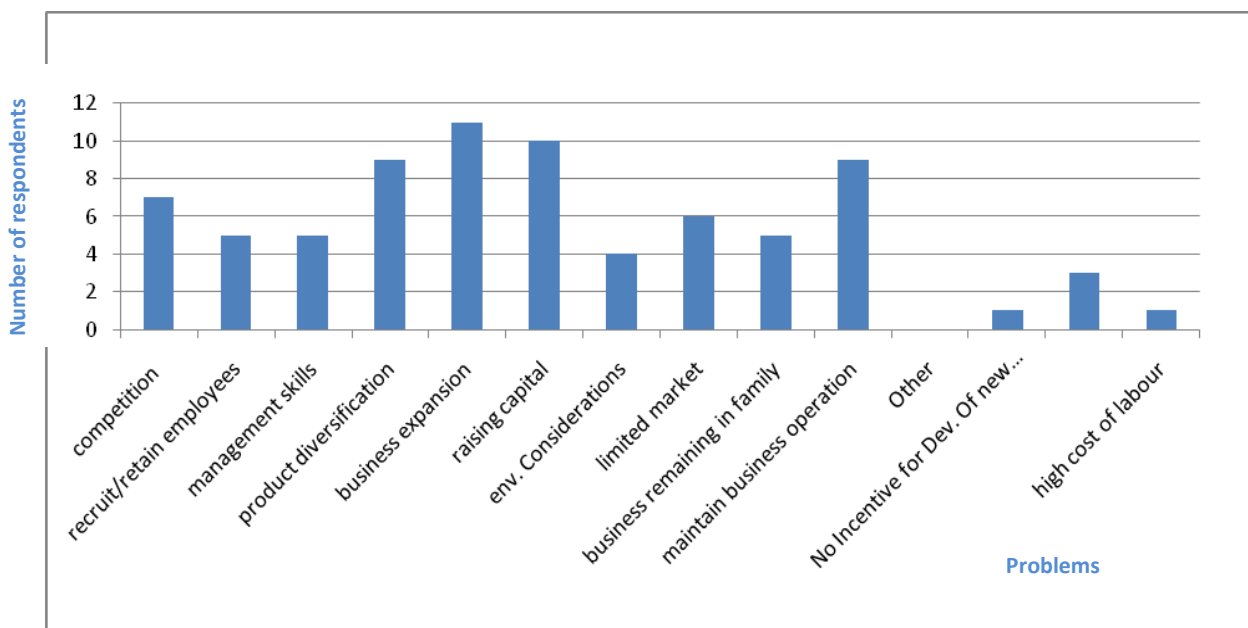
Fig.14: Survey Sample by Type of Agricultural Export



## Impediments to Agricultural Export Development in Tonga

According to the quantitative survey conducted for this thesis, agricultural exporters in Tonga largely share similar views on the constraints to agricultural export development. This thesis believes that this could be a consequence of the involvement of most of the survey sample in the cultivation and export of squash to Japan. As illustrated in Fig.14, 39 per cent of exporters in the survey are currently involved in the squash trade. However, almost all of these growers including those involved in the production of non-squash products appeared to have been involved in squash exports at a certain point in time. This reflects the status of squash as Tonga’s main export product and most popular cash crop.

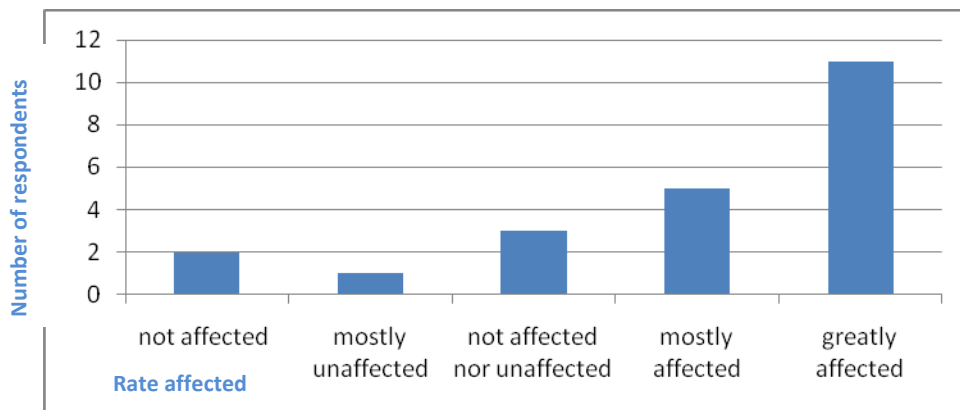
Fig.15: Problems that “Greatly Affected” Agricultural Export ventures in Tonga



### Problem 1: Incapacity to Increase Capital Formation

As depicted in Fig.15, agricultural exporters consider the most significant impediment to agricultural export growth in Tonga to neither be a lack of skills nor a lack of market but an incapacity of exporters to increase capital formation hence expand their businesses. Fig.16 reiterates this finding by illustrating that almost all exporters in the survey agree that this problem is a constraint to export development.

Fig.16: Incapacity to Increase Capital Formation



One exporter gives more insight to the significance of this problem by stating that:

“We try our best because the capital equipment that is imported for us to use is not cheap, it is expensive and we try different sources of funds, we borrow from banks, just so that we can import these machines to enable us to reach our goal of exporting as much as we can” (Squash Exporter, Tongatapu)<sup>24</sup>.

This statement reveals the increasingly capital intensive nature of the agricultural export industry in Tonga. Agricultural farmers recognize that to maximise profits from agricultural export, it is necessary to achieve a level of economies of scale through the use of machinery. The problem however, as revealed by the squash exporter is that these items of capital equipment are expensive and the average Tongan agricultural farmer does not have the financial means to obtain them.

Capital formation is particularly expensive for Tongan farmers because the equipment must all be imported. As such, farmers not only have to cover the cost of the expensive equipments but to also cover high costs of freight and duty. A study by the Commonwealth Secretariat revealed that “overall costs have doubled due to the falling exchange rate” (Murray, 2006, pg.44). At this depreciated exchange rate, production costs are further

<sup>24</sup> Translated from Tongan



increased by the fact that most shipping companies require freight to be paid in US currency (Murray, 2006, pg.44).

The consequence of this aspect of capital intensive export is seen in the export of squash to Japan. Seeds and fertilizers as well as required machinery for cultivation were to be imported from Japan. As such, despite the attractive returns posed by high unit prices for squash, the capital intensive nature of squash production consequently resulted in an estimated return of only “\$0.86 on one Tongan dollar spent on squash production compared to about T\$2.08 and T\$3.57 for potato and taro, respectively” (Felemi, 2001, pg.13). The prices that attract subsistence farmers to commercial export can therefore be misleading.

#### **Problem 2: Difficulties in Raising Capital**

As indicated in Fig.15, the second most significant impediment to agricultural export development in Tonga is the problem of raising capital funds to finance the operation of the business. The identified accelerated transition from traditional labour intensive agriculture to capital intensive agriculture indicates that the agricultural export business is becoming increasingly costly. The high cost associated with agricultural export may form a barrier to entry which could restrict small-scale farmers from entering the industry. One of the exporters in the survey elaborated on this problem by stating that:

“...you know a lot of these people here are tied up with debts from squash and that’s a sad thing. Now a lot of these people could be a lot more productive, producing more, but their production is tied up with debts from squash. I was talking with the TDB manager last week and he said that they’re sorry that farmers and growers are not coming forward because they have the money. And I said (TDB Manager’s name), you know the reason, a lot of them are losing their land and not only that but they can’t go back for more (loans) when they still have

debts to pay. And (TDB Manager's name) knows that. He said, 'Oh yeah, yeah. I'm only telling you that we have money sitting here to be borrowed by the agricultural sector but it just sits there. A lot of the good growers are not in a position and they feel that they are not able to come back because of that problem' (Vegetable Exporter, Tongatapu)<sup>25</sup>.

The statement above indicates that Tongan agricultural farmers are capable of being more productive but are prevented from doing so due to outstanding debts<sup>26</sup> from squash. Based on the extensive involvement of the survey sample in squash production, it is reasonable to state that the current problem of raising capital funds identified in this survey is due to the decline in the squash industry and the extensive involvement of local farmers in the industry.

Nonetheless, the above statement reveals that the problem of raising capital funds is not due to a lack of credit sources but rather an inability of farmers to access these funds. As such, small-scale farmers in Tonga are restrained from reaching a level of economies of scale or diversifying into new products because they either do not have the required collateral (for those who have lost their land<sup>27</sup>) or their outstanding debts prevent them from obtaining the required extra credit. Fig.17 suggests that this is a problem for most agricultural exporters in Tonga.

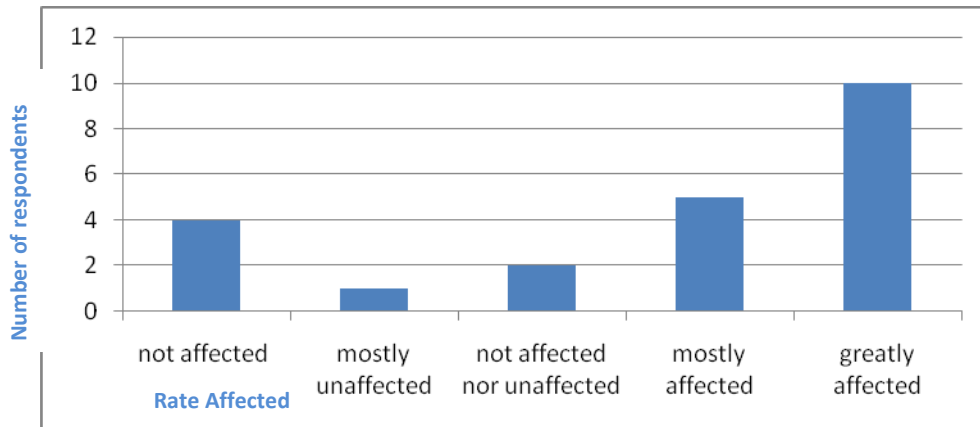
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<sup>25</sup> Not translated from Tongan

<sup>26</sup> The high costs associated with squash production pushed farmers to seek funding through loans. The Tonga Development Bank (TDB) being a quasi-Government owned financial institution became the main source of these loans because they were able to offer loans at relatively low interest rates. Farmers depended on their returns from squash to finance these loans. However by the end of the 1990s the squash industry declined and agricultural farmers found themselves in a financial rut. The situation deteriorated when squash producers increased production from 13,282 tonnes in 2002 to 21,280 tonnes in 2003 but was met by a significant drop in squash unit price \$408 per tonne in 2002 to US\$324 per tonne in 2003(IMF, 2006, pg.19). Consequently, squash exporters had to seek assistance from Government in 2004 to facilitate a T\$6.3 million loan from the Tonga Development Bank to "compensate squash growers for the zero earning from their squash exports to Japan" the previous year (Matangi Tonga, 2004).

<sup>27</sup> Land sales are illegal in Tonga. Many farmers have therefore leased off their lands for a certain period of time so as to help finance their mounting debts.

Fig.17: Difficulties in Raising Capital Funds



**Problem 3: Incapacity to Diversify Export Production**

Fig.18: Problems with Product Diversification

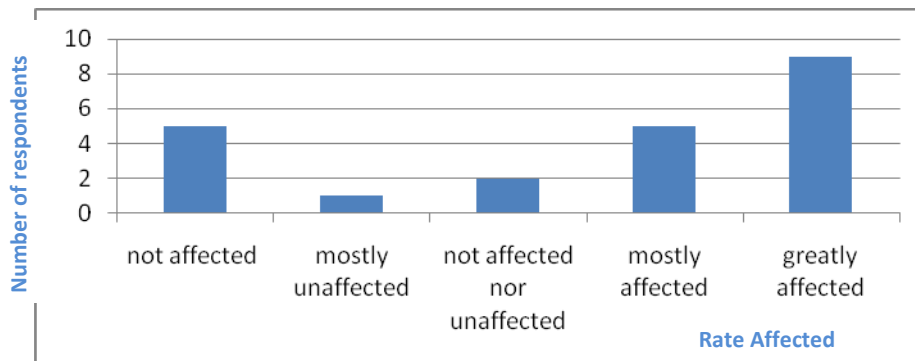


Fig.18 illustrates that the incapacity of agricultural exporters to diversify into different export products is another significant impediment to agricultural export development in Tonga. Fig. 19 however illustrates that although a number of farmers are greatly affected by this problem, a fair share also indicate that they do not find this to be a problem at all.

The number of farmers who are not affected by this problem may be indicative of the number of farmers who had succeeded in adopting a level of product diversification during the period of relative specialisation in squash production. One exporter indicated that he believes that the ability of his business to continue operation is due to the fact that they “have other things running” (Agricultural Exporter, Tongatapu, 2008). This exporter claims that due to

specialisation in one export product, many exporters were ultimately forced to close down their export ventures when that export product failed. He states that:

“I think for a lot of the other exporters, their business was what they were trying to develop. When that fell over for whatever reason then of course there was nothing else for continuation and they went back to normal farming (subsistence farming)” (Coconut Exporter, Tongatapu)<sup>28</sup>.

This statement suggests that those who are not affected by problems relating to product diversification are those that are already practising a level of diversification not only in their production but also in the markets to which they export. This coconut exporter for example, exports brown coconuts to New Zealand and Australia as well as butternut to Japan. As such, exporters who are now facing difficulties with product diversification are those that relatively specialised in squash production and were therefore most affected when the Japanese niche market deteriorated.

Nonetheless, in consideration of the identified constraints in obtaining capital funds for the average small scale farmer, it is most likely that those affected by the fall in squash will not have the financial capacity to diversify into other export products.

#### **Other Significant Problems:**

As depicted in Fig.15, the problems of competition and maintaining business operation are also outstanding impediments to local agricultural farmers. This reflects the limited financial capacities of average small scale farmers to remain competitive.

The fifth outstanding factor that is considered by exporters to have greatly affected their ventures is the struggle to maintain the operation of their ventures. The significance of this

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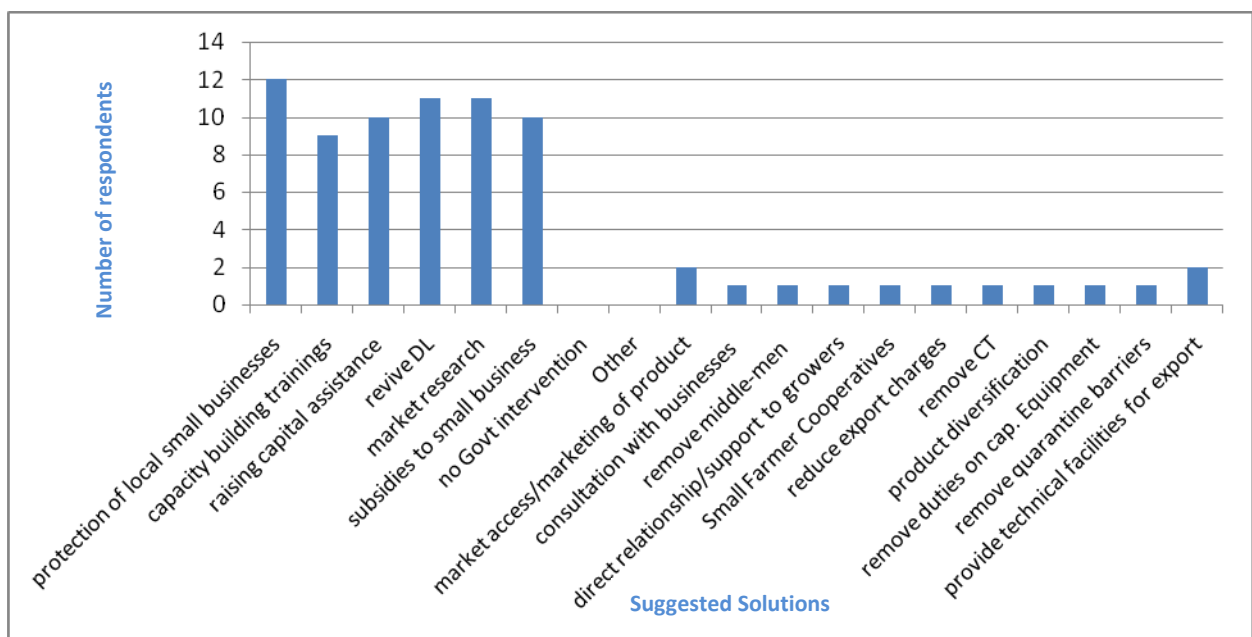
<sup>28</sup> Not translated from Tongan

problem indicates that many agricultural exporters are on the verge of resigning from the export business and returning to subsistence-only farming. An increase in the number of exporters transitioning back to subsistence agriculture may further slow down agricultural development hence economic growth for Tonga.

## Ways to Remove Impediments to Agricultural Export

The quantitative survey discussed above also sought to identify how exporters propose to resolve the problems that limit their productive capacities. The most significant solutions recommended are as follows:

Fig.19: Most Effective Ways of Enhancing Agricultural Export Growth in Tonga



### Solution 1: Protection of local small businesses

It is clear from Fig.19 that local exporters consider the protection of local small businesses to be the most effective solution for enhancing agricultural export growth in Tonga. Fig. 20 also reiterates the same idea as the majority of exporters surveyed indicated a need for protection of local small agricultural exporters.

This finding suggests that small scale exporters feel threatened and require Government protection. One exporter's statement suggests that the threat is from foreign companies who could enter the industry. He states that upon the introduction of foreign investors into the industry:

“Our businesses would cease to exist. They (foreign investors) have lots of money. They would come and set up the facilities that we lack and our businesses would cease to operate any longer. Those of us here in Tonga can't – we're a small country and we are poor and we can't compete with the wealthier countries. Our small businesses here in Tonga would go out of business because they (foreign investors) would practice mass production. The more they produce the less the cost and we can't compete with them because the cost of production for us would be high and we can't compete in price because the cost of production for them would be low. The Government should protect us here in Tonga otherwise these foreign businesses will come and take away our opportunities” (Squash exporter, Tongatapu)<sup>29</sup>.

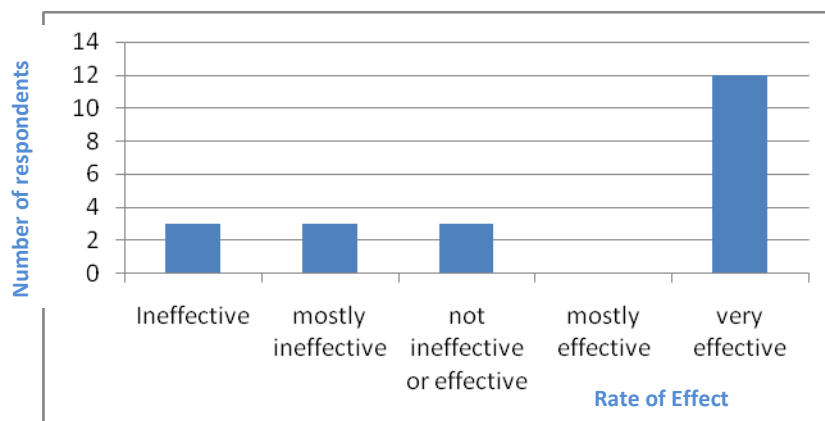
The previous section identified that the financial capacity of small holder farmers are largely restricted due to debts from squash. It was also identified that many of these exporters are incapable of achieving higher capital formation nor can they diversify into different products so as to reduce risks of financial loss. These farmers are also identified to be less competitive and are on the verge of closing down business. For these reasons, it is very likely that smallholder farmers would feel threatened regardless of whether the threat is from foreign investors or from domestic competitors.

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<sup>29</sup> Translated from Tongan

However, what is clear is that these small holder farmers believe that the solution is for Government to adopt protectionist policies that would focus on enhancing the productivity and competitiveness of small-scale farmers in Tonga. According to agricultural exporters in the survey, a possible example of such policies is the provision of subsidies for small businesses (Refer to Fig.19).

Fig.20: Protection of Small Local Businesses



### Solution 2: Revive Development License Scheme

As depicted in Fig. 19, the survey indicates that the second significant approach for enhancing agricultural export growth in Tonga is through the revival of the Development License Scheme. Fig.21 indicates that the majority of exporters in the survey believe that this incentive is essential to the development of agricultural exports in the country.

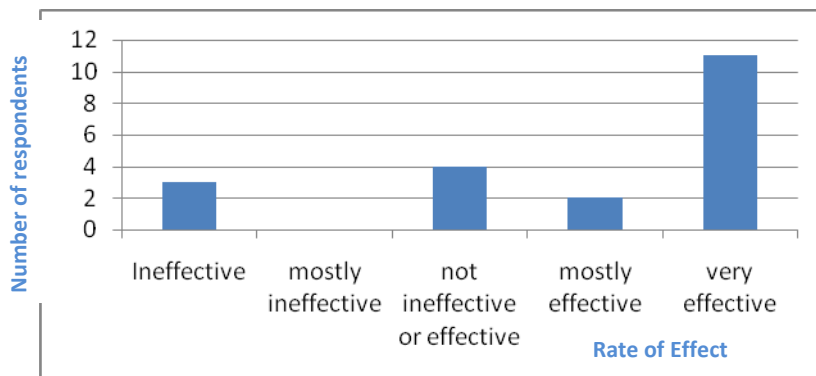
One exporter elaborates on the importance of this incentive by stating that:

“We still need this type of incentive to help us because we are not a financial institution but we try because the capital equipment we use is not cheap, it’s expensive” (Squash Exporter, Tongatapu)<sup>30</sup>.

<sup>30</sup> Translated from Tongan

The Development License Scheme, as will be discussed further in Chapter 6, is a fiscal incentive offered by Government which enabled commercial farmers to import capital equipment duty free for a given period of time. As stated in this statement, the increasing need for imported equipment to facilitate the high costs associated with capital intensive commercial agriculture is the reason why this incentive is so significant to the growth of the agricultural export sector. Nonetheless, despite its identified necessity, this incentive was abolished by Government in July 2007 for reasons that will be further discussed in Chapter 6.

Fig.21: Revival of the Development License Scheme



### Solution 3: Market Research

Another highly recommended solution for the impediments faced by agricultural exporters in Tonga, as depicted in Fig.19, is market research. Fig. 22 shows that the majority of agricultural exporters consider this to be a “very effective solution”.

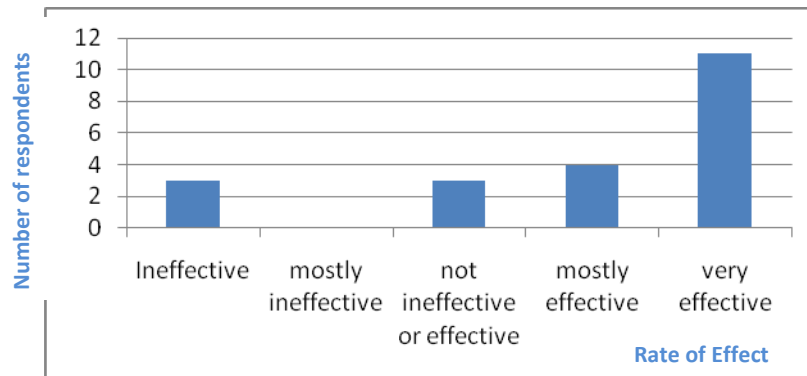
One of the leading exporters who also assist in the development of other smaller scale ventures emphasized the importance of market research by stating that:

“One of my main businesses in agriculture is to get people to encourage them to grow more, to export. But I find it hard because they’ll say look (name of interviewee) you tell me to grow this year and what shall we get out of it...They need to feel secure about the



market. They've got to know that there'll be markets for their produce.” (Former squash exporter, Tongatapu) <sup>31</sup>.

Fig.22: Market Research



The information given in this statement indicates that there is a level of insecurity when it comes to export markets for Tongan agricultural produce. The statement suggests that agricultural farmers are discouraged from participating in export because they are unsure whether there are markets for their produce. In effect, one exporter indicated that the lack of a specified market for products has resulted in some root-crop (taro, yams, cassava) export farmers “having to go overseas with every shipment to try and sell their produce” (Coffee exporter, Tongatapu). As such, the availability of secure markets for exports will reduce costs for farmers and enable relatively insecure subsistence farmers on the sideline to participate in export production.

The most positive effect of identifying reliable markets for Tongan agricultural products is that it would give Tongan agricultural farmers a level of security hence an incentive to export and to be more productive. Such is perhaps the most fundamental step towards growth.

**Other Recommended Solutions:**

Figure19 suggests a number of other solutions that agricultural exporters believe to foster growth in the agricultural export industry in Tonga. One of the most outstanding solutions

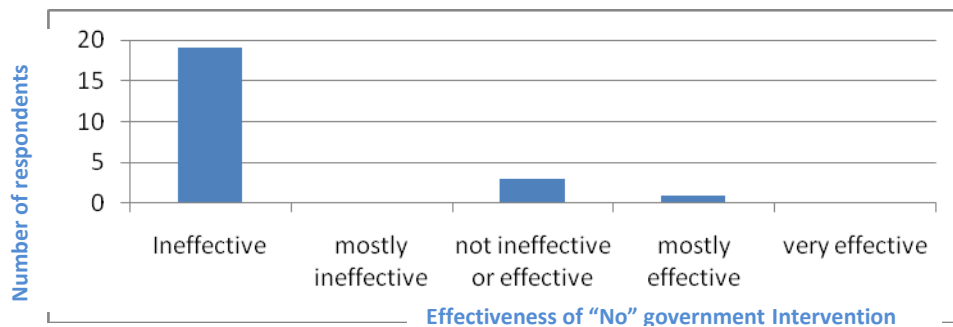
<sup>31</sup> Not translated from Tongan

recommended is for Government to assist in raising capital funds for business operations. As discussed in the previous section, this solution is reflective of the difficulties faced by agricultural farmers, particularly small-scale growers, in raising capital funds to continue business.

**Government Intervention:**

In view of the recommended solutions identified in the survey, it is apparent that agricultural exporters in Tonga look to the Government to provide these measures. In effect, Fig.18 shows that the majority of exporters in the survey considered Government non-intervention to be ineffective. In other words, agricultural exporters in Tonga believe that it is more effective for Government to intervene in the development of the agricultural export industry than otherwise. In effect, the survey responses mostly referred to Government as the agency to implement the proposals identified in this survey.

Fig.23: Exporters’ Opinions of “No Government Intervention”



The opinions of agricultural exporters regarding agricultural export development in Tonga indicate that there are significant impediments to the development of this industry yet they also believe that there is great potential in the agricultural export industry if these constraints are removed. One exporter voices his belief in the potential of the agricultural sector by stating that:

“ I really feel that we here in Tonga are very lucky in that respect, the land is out there, farming can be your business and you can go out and do as much as you like and in fact get as much money as you can out of it. And that opportunity cannot be found everywhere in the world. Now that’s why it is more important for us and probably more easier for us to do is that we have a favourable combination of weather and soil...So we live in a favourable environment for us to get things, for us to have whatever. So we want people to do things because really we’re not that helpless.” (Vegetable Exporter, Tongatapu)<sup>32</sup>

This viewpoint suggests that agricultural exporters understand the potential of the agricultural industry in Tonga to not only foster economic growth but to provide a sustainable livelihood for its people. However, as discussed in this chapter, Tonga can most likely reach this potential if constraints to agricultural export development are removed. As identified in this survey, agricultural exporters are looking to Government to help remove these impediments.

The following chapters discuss the forms of Government intervention in the development of the Agricultural export industry in Tonga. The aim of discussing the voice of the exporters before the forms of Government intervention in the industry is to allow the reader to establish a level of comparison between the two and to identify how far Government policies respond to the needs of the exporters.

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<sup>32</sup> No translations from Tongan

# CHAPTER 5

## Role of Government GOVERNMENT IN AGRICULTURAL EXPORT DEVELOPMENT

The role of state in the economy is an issue that has constantly changed over time. During the 1980s and early 1990s the Washington Consensus established principles that were largely based on a conviction that “government was more likely to make things worse than better” (Todaro & Smith, 2009, pg.551). However, by the late 1990s, although neo-liberalism was still very much the dominant political ideology, the relatively lower levels of economic development in some highly liberalized economies led to the initiation of the Santiago Consensus which re-established, although at a minimal level, a role for the state in the economy.

However, as discussed in the previous chapter, agricultural exporters in Tonga consider Government intervention as fundamental to the development of the agricultural export industry in the country. Whilst they have come up with solutions for the improvement of the industry, they mostly look to Government to implement these for them. Government, on the other hand, indicates that Tongan communities and private sector should be “made aware of Government’s proper roles and limited resources and to examine ways of increasing their self-reliance” (Central Planning Department, 2006, pg.34).

While the previous chapter looked at the development of the agricultural export industry from the perspective of the agricultural exporter, this chapter looks at the development of the industry from the perspective of the Government. As such, discussions will focus on Government’s chosen approach to economic development hence agricultural export growth.

## Government in Tonga

Tonga is a constitutional monarchy comprised of the King in the Privy Council, the Cabinet, the Legislative Assembly and the Judiciary. The monarch is the Head of State and the Prime Minister is the Head of Government. However, the Head of Government in Tonga is appointed by the monarch and “serves at his pleasure” (Central Planning Department, 2006, pg.vii). The monarch also appoints the members of the Privy Council (who also form the Cabinet) which comprises of the Prime Minister, 14 Ministers and the Governors of the two larger outer island groups of Ha’apai and Vava’u. Accordingly, the highest real authority in Tonga is the monarch<sup>33</sup>.

According to the channel of policymaking in Tonga, the 14 Government Ministries advise Cabinet on policy matters according to their different mandates. All policies must be approved by the Cabinet before they are implemented by Government Ministries. Legislation is proposed by Government Ministries and passed through the Legislative Assembly<sup>34</sup> and is enacted by the King in Privy Council.

Policies relating to agricultural export development are under the mandates of the MAFF and the Tonga Trade Department. MAFF is the key Government agency for agricultural development. Its role in agricultural export development includes research and development of potential agricultural products, quarantine services as well as providing advice and training for agricultural exporters.

The Tonga Trade also plays a significant role in agricultural export development in Tonga, but is under the administration of the MLCI. Under its mandate of “fostering and promoting

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<sup>33</sup> The current monarchy, King George Tupou V however, upon his coronation, has announced that he will give up his powers.

<sup>34</sup> The Legislative Assembly in Tonga is comprised of the 16 members of Cabinet, 9 nobles representatives to represent the 33 nobles of Tonga, and 9 people’s representatives to represent the 100,000 Tongans in the country.

sustainable export trade”, Tonga Trade assists in promoting agricultural products, conducts market research, as well as offers assistance to exporters in the marketing of their products.

Through these Government agencies and the assistance of other line Ministries, the current national strategic plan indicates that Government aims to increase and diversify commercial agricultural export production throughout the country (Central Planning Department, 2006, pg.83).

### **Agricultural Export Development through Liberalisation**

According to the SDP8, the Government believes that the best approach to promoting agricultural export and achieving policy objectives in this industry is “by ensuring the existence of a business environment that is conducive to private-sector activity” (Central Planning Department, 2006, pg.83). This idea reflects the results of studies by the World Bank and ADB in the beginning of the 21<sup>st</sup> century which indicated that “the regulatory environment in Tonga has been recognized as providing discouragement to the activities of the private sector” (Murray, 2007, pg.18). It is the belief of these organisations that “countries with less burdensome business regulations grow faster” (Djankov et al cited in Murray, 2007, pg.18).

One of the indicators of the state of the business environment in Tonga is the World Bank’s “Ease of Doing Business Index”. As depicted in Fig.24, the 2005 index ranked Tonga as 46<sup>th</sup> out of the 175 countries studied. Moreover, in 2006, Tonga’s business environment deteriorated by 11 per cent and was ranked 51<sup>st</sup>. Compared to the business environments of other Pacific Island countries, Tonga’s business environment was ranked superior to Kiribati, Palau, Solomon Islands, and Vanuatu. However, the business environments of its neighbouring island countries of Fiji and Samoa were relatively more favourable.

Fig.24: World Bank “Ease of Doing Business Index” 2005 - 2006

Economy	Ease of Doing Business Ranking		Movement of ranking	
	2005	2006	Direction	Percentage
Australia	9	8	Improved	11
China	108	93	“	14
Fiji	29	31	Deteriorated	-7
Kiribati	58	60	“	-3
New Zealand	1	2	“	-100
Palau	57	62	“	-9
Papua New Guinea	53	57	“	-8
Samoa	36	41	“	-14
Solomon Islands	61	69	“	-13
Tonga	46	51	“	-11
United States	3	3	no change	0
Vanuatu	54	58	deteriorated	-8

Source: World Bank website

In view of the state of the business environment in Tonga compared to other countries, a Commonwealth study warned Tonga that if the government does not “provide an encouraging environment for domestic and foreign private business investors and traders, the investors and traders and all their benefits will locate in other countries where the environment is more favourable” (Murray, 2007, pg.18). Moreover, in view of the further deterioration in the economy after the public service pay increase and the civil unrest of 2006, it was recognized that the need to increase the pace of economic development was more urgent and that “more determined efforts to develop and strengthen the private sector” were imminently required (Murray, 2007, pg.19).

Heeding the advice given, Tonga has most recently embarked on a series of liberalisation reforms that are expected to not only strengthen the private sector including agricultural exporters but also accelerate the recovery of the economy. These reforms include a tax reform which replaced “high border” marginal taxes such as fuel tax and Ports & Services tax with a broad based production tax known as a Consumption tax. This Consumption Tax is

considered superior because it does not “inhibit trade and distort the allocation of economic resources and restrict wealth creation by the private sector” (Murray, 2007, pg.21).

Amendments have also been made to the income tax legislation with the anticipation of improving the welfare of low income earners. The new Income Tax Bill raises the tax threshold from T\$2,500 to T\$7,400 hence benefiting low income earners. High income earners however will be liable to higher taxes particularly when tax exemptions for school fees, church donations and such are abolished in the new income tax legislation.

The agricultural export industry however, is not affected by this tax reform because the current agricultural policy “exempts farmers from the payment of income tax and consumption tax” (Central Planning Department, 2006, pg.85). However, it is likely to be affected by the trade liberalisation reform which includes the removal of the only fiscal incentive for investment in Tonga – the Development License Incentive<sup>35</sup>, and the reduction of tariff rates so as to remove discrimination against imports. The effect of this reform however will be discussed further in Chapter 6.

Nonetheless, although these reforms have successfully increased Tonga’s ranking in the World Bank’s “Ease of Doing Business Index” (41<sup>st</sup> in the 2008 Index); it still may be too soon to see any significant positive changes in the economy. The only apparent change however, is that Tongan policies have become more in line with neo-liberal doctrines of economic development.

### **Neo-liberalism and Economic International Organisations**

One aspect of Tonga’s liberalisation reforms is the role of international organisations in pushing forward these restructures. ADB, IMF and World Bank have conducted numerous

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<sup>35</sup> A Government fiscal subsidy which entitled its holders to exemptions from payments of duty on importation of capital equipment



economic analyses of the economy and, based on these studies, have provided Government with advice on how the economy should move forward. They have even provided financial assistance for the implementation of these reforms such as the World Bank funding for the Regulatory Reform for Private Sector Development in January 2006.

Moreover, the relatively abrupt introduction of these reforms<sup>36</sup> was part of the compliance package for Tonga's accession to WTO. Apart from the Consumption Tax which was introduced in 2005, all other reforms were in place in June 2007. Tonga acceded into the World Trade Organisation in July 2007. This influential role of international organisations in bringing about these reforms in Tonga is a reflection of their prominent role in policymaking in Tonga as well as in spreading the neo-liberal orthodoxy to different countries and regions.

This role of international organisations in the growth of neo-liberalism began with its prominent role in the initiation of the "Washington Consensus" – the economic policy framework based on the belief that liberalisation is the most efficient approach to economic development. The fervent belief of these organisations in neo-liberalism is largely rooted on economic principles of efficiency.

### **The Quest for Efficiency**

According to economic theory, efficiency is maximised at a state of Pareto optimality – a situation where allocative efficiency produces a level of welfare where "it is impossible to make one person better off without making another person worse off" (Just et al, 2004, pg.15). This is because, in this ideal situation, all resources in the economy are used efficiently and "the society gets the maximum output at the minimum price and the marginal cost is equal to the price" (Ghosh, 2001, pg.17). As such for Tonga, the neo-liberal reforms

introduced are anticipated to increase efficiency in the economy, and hence to bring about economic recovery and improvement to the welfare of the majority of the Tongan population.

The neo-liberal ideology is founded on the economic claim that this level of efficiency can only be achieved in a perfectly competitive market situation through the uninterrupted work of the price mechanism. Government intervention, therefore, is considered by this ideology to disrupt the allocative role of the price mechanism hence reducing efficiency.

Accordingly, the neo-liberal reforms Tonga introduced have reduced Government intervention in the economy at a level that is unprecedented in Tongan history. However, this unprecedented transition may not be as “efficient” as the neo-liberal ideology advocates. The experiences of other countries which preceded Tonga in adopting similar neo-liberal reforms indicate that the market system can fail to achieve the efficiency levels anticipated. In effect, it can further exacerbate the economic and welfare problems that prompted the initial move towards neo-liberalism.

Manifestations of market failure include increased inequality, unemployment, recession, balance of payment deficits and stagflation (Ghosh, 2001, pg.25). These situations indicate that the “automatic adjustments” of the neo-liberal market system is not always realistic. As Ghosh stated in his book, “From Market Failure to Government Failure”, these situations points out that “ a market is not a panacea for all economic ills nor is it always efficient”, in fact “the market system indeed has its own limitations” (Ghosh, 2001, pg.26).

Countries which fervently adopted neo-liberal reforms are now experiencing the effects of market failure. New Zealand, for example, which “rigorously” adopted neo-liberal policies in the 1980s “found itself in a very disadvantageous position” in the late 1990s. The liberalisation of its financial market resulted in increased private and business debt and an increased outflow of capital as foreign companies largely remunerated funds to their mother

countries. Socially, the neo-liberal system “resulted in growing inequality and poverty, declining health-care standards, high rates of incarceration and suicide, and little growth in participation in higher education” (Duncan, 2004, pg.215).

Conversely, countries which maintained a relatively interventionist policy system such as Taiwan and South Korea experienced the “highest rates of economic growth over the past half century” (Todaro & Smith, 2009, pg.551). The common factor that these countries share is that, while the Washington Consensus prescribed strict non-intervention policies for Government, these countries maintained relatively high levels of Government intervention. For example, the Taiwanese and South Korean Governments were heavily involved in their respective economies during the 1950s and 1960s by establishing several public enterprises when privatisation was the policy prescribed. Moreover, although both countries reduced regulation of the economy as prescribed by the neo-liberal orthodoxy, it was not to the extent of deregulation in other countries (Todaro & Smith, 2009, pg.552). In view of the relatively higher economic success, yet highly interventionist policies of these countries, theorists have come to conclude that “the state has had a broader role in the most successful development experiences than encapsulated by the Washington Consensus” (Todaro & Smith, 2009, pg.552).

These examples of the failure of the free-market system and the success of Government intervention suggest that economies are more efficient when the market works together with the Government rather than independently. Government, as an “organisation for monopolising legitimate coercive power” is the ideal external force to correct market inefficiencies because it can use its coercive power to remedy market distortions hence restore efficiencies lost due to market failure (Hayami & Godo, 2005, pg.242).

## **Agricultural Export Development through Government Intervention**

Agriculture is usually considered a perfectly competitive activity, with many sellers competing under a market price that they have no control over. However, this does not imply in any way that there are no market failures in this industry hence no role for government. In fact, “market failures in the sector are quite common” and there is an important role for Government in agricultural development (Todaro & Smith, 2009, pg.437).

According to the Qualitative Interview conducted for this thesis, the Government acknowledges that it does have a role in agricultural export development but it is only to facilitate growth that is led by the private sector. A key senior official from the Tonga Trade Department claims that:

“There is always a role of Government, as I see it. Government must not only create a business environment that fosters growth but also provide encouragement and support for the private sector. The engine of growth is the private sector therefore instead of government taking the lead; it should be the private sector leading the growth facilitated by the government in terms of providing the policy space and support.”<sup>37</sup>

MAFF also reiterated similar ideas on the proper role of Government in agricultural export development in Tonga. According to a senior official from the Quarantine and Quality Management Division of the Ministry, the appropriate role of Government in agricultural export development in Tonga is:

“as a facilitator, that’s the only way”<sup>38</sup>

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<sup>37</sup> Not translated from Tongan

<sup>38</sup> Translated from Tongan

This facilitator role of Government coincides with the “Santiago Consensus belief “that “development must be market based” hence “Government should not be in the business of direct production”. However, there are “large market failures that cannot be ignored” hence there is a “broad eclectic role for Government” in areas such as providing a stable macro environment, providing infrastructure, technology transfer, ensuring environmental sustainability, providing export incentives, poverty alleviation and the provision of fundamental public goods” (Todaro & Smith, 2009, pg.553).

In their book titled, “Economic Development”, Todaro and Smith claim that “one of the most important challenges for agriculture in development is to get the role of Government right” (Todaro & Smith, 2009, pg.437). They believe that Government’s role in agricultural development is to correct market failures in agriculture. These market failures include environmental externalities, public goods such as research and development and extension services, economies of scale in marketing, information asymmetries in input supply, and the provision of institutions and infrastructure for agriculture.

A senior official from the MLCI who has participated in multilateral negotiations on agriculture for Tonga also assigns the same roles to the Tongan Government. He states that the most appropriate role of Government in the development of the local agricultural export industry is in:

“providing the necessary infrastructure to support export such as fumigation chambers, high temperature treatment plants, cool storage facilities; market research and promotion, market and product development; training of farmers to nurture a quality culture; and research and development in crop agronomy,

horticulture, pest and diseases, post harvest and new crops. These are kind of subsidies which are allowable under WTO, but not direct price support.”<sup>39</sup>

## **Government Roles in Agricultural Export Development in Tonga**

### ***i) Providing Infrastructure:***

The public good character of infrastructure for agricultural development regulates Government intervention in the provision of these fundamental facilities. The SDP8 indicates that one of Government’s main agricultural strategies for the next three years is to “improve infrastructure that supports agricultural development” such as roads, ports, air and sea transport (Central Planning Department, 2006, pg.85).

However, Government fails to address other infrastructural needs such as the provision of a cooler storage facility to store perishable agricultural products with short seasons in order to maintain a longer supply of these products in the domestic market. This facility could help reduce import demands for these products during their off-season periods hence contributing to Tonga’s balance of trade.

Moreover, there is an indicated urgent need for replacement of the Government’s fumigation chamber which has been out of order for the past five years. According to agricultural exporters, the lack of improvements to this infrastructure has cost Tonga opportunities to trade hence contributing to the decline in export returns. One grower states that:

“About the Government’s fumigation chamber at the wharf, it has not been working for the past five years and so we’ve been asking Government to set this up so that we can export our water melon. It’s been five years and Government still hasn’t been able to do their job. Tonga is losing a lot of money from this

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<sup>39</sup> Not translated from Tongan

because the market for water melon is a huge market in New Zealand but we can't export water melon because the Government cannot do their job"<sup>40</sup>

It is also increasingly necessary for Tonga to provide these infrastructures because of the quarantine and quality standards of its trade partners. A senior official from the Ministry of Labour, Commerce and Industries indicated that:

“Due to the outbreak of SARS, Bird Flu, etc, there is a strong consumer movement for food safety and stringent enforcement of standards”<sup>41</sup>

As such, countries have become stricter with their quarantine sanitary standards therefore indicating that for Tonga's exports to be competitive in the world market, it must meet quarantine standards of its trading partners. Moreover, since the Tongan economy is dependent on a narrow export base that is largely food and food related, failures to comply with standards will have tremendous negative impact on the economy.

## **ii) Research, Development and Extension Services**

These services are also under the jurisdiction of the MAFF and are provided through its Research and Extension Services Division. In the past, the Ministry was highly responsible for the introduction and development of Tonga's leading cash crops. It introduced the vanilla trade in 1966 and although squash export was a private sector initiative, the Ministry played a significant role in the development of the crop through research on pests and diseases. It also provides advisory services to growers on safety measures and the proper use of fertilizers and pesticides (Van Der Grijp, 2004, pg.79). Moreover, the division provided “the initial research, extension and development inputs for the fledgling coffee industry, before

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<sup>40</sup> Translated from Tongan

<sup>41</sup> Not translated from Tongan

transferring the activity to the private sector for full commercial development” (Central Planning Department, 2006, pg.10).

However, although the SDP8 indicates that the Ministry intends to increase trials on vegetable production for export, the focus of the Research and Extension Services Division in recent years has been largely one-sided. According to the MAFF 2006 Annual Report, “the number of research experiments conducted in 2006 was mainly with squash, which reflects the amount of support to the number one export crop for Tonga” (Ministry of Agriculture, 2006, pg.34). Consequently, the focus of researches on squash has contributed to the inability of growers and the economy to withstand the effects of the decline in the squash market.

The reason for Government failures in research is indicated to be the unavailability of sufficient funds. However, a senior official from the Ministry states that:

“With funding received from the European Union of T\$7 million, plus other smaller funding from other sources, we are hoping to move forward with our export expansion and diversification program”<sup>42</sup>

Although the availability of funds raises hopes for the agricultural export industry, this statement suggests that the Tongan Government is not able to effectively help growers to respond to market changes because it does not have the financial capacity to correct these market failure situations. In effect, it relies on aid for these funds, hence the implementation of these projects would most likely be delayed until such funds are identified and when obtained, the mode of government intervention would most likely be in accordance with the requirements of the aid donor, whether they be efficient or not. This inability of the Government to promptly and effectively facilitate private sector response to market

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<sup>42</sup> Not translated from Tongan



distortions results in further inefficiencies and welfare loss hence agricultural farmers are consequently left in higher amounts of debt and more vulnerable to market fluctuations.

### **iii) Provision of Trainings**

Another core function of MAFF is the provision of trainings for agricultural growers and exporters. The SDP8 indicates that the Ministry intends to take on a “greater educational role, focusing on providing advisory information about technical and market matters along with advice on potential new enterprises” (Central Planning Department, 2006, pg.84).

This advisory and educational role however is also the function of the Tonga Trade in the MLCI. The Ministry indicates that there has been a “duplication of efforts by different branches of Government, particularly in provision of market information” (Central Planning Department, 2006, pg.84). This duplication can be a product of miscommunication or the lack of communication and coordination amongst Government Ministries.

Nonetheless, according to an interview with one of the agricultural exporters for the purpose of this thesis, there is a significant need for training in the agricultural export industry in Tonga. He stated that:

“We [Tonga] have not reached a level of production where the agricultural farmer has obtained special abilities needed to operate certain machineries. We’re very limited in that aspect. Only a few agricultural workers/farmers have got that sort of ability. The majority don’t know that and they tend to rely on these few people and their ability and resources. I think what we are hoping for is to train and get many more of our agricultural farmers and growers to be able to use machinery and technology in the process.”<sup>43</sup>

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<sup>43</sup> Not translated from Tongan

However, despite this significant training need in the industry, a study by the Commonwealth Secretariat on the Impact of the Reforms in Tonga revealed that “ there is insufficient effort to develop skill levels amongst Tongans” (Murray, 2007, pg.69). Moreover, the study revealed that it would be more effective for local providers to conduct the training rather than the more common use of expatriates funded by aid agencies to do the training. As such, in improving its educational and advisory roles, the Ministry should improve its communication with its trainees so as to ensure that the content of the training and the mode in which the training is conducted effectively meets the needs of those trained.

#### **iv) Support for small and medium scale agricultural farms**

The Government acknowledges its role in developing small and medium scale agricultural farms in the country. According to the SDP8, the Government seeks to promote the development of small and medium-sized agricultural enterprises yet the only definite assistance indicated is the exemption of farmers “from payment of income tax and consumption tax and import duties on agricultural inputs” (Central Planning Department, 2006, pg.85). Although this assistance will significantly benefit small-scale farmers, it will also help larger agricultural companies to gain a greater share of the export market hence increase the identified threats to the existence of small-scale export ventures.

In view of the significance of agricultural development to poverty alleviation in Tonga (as discussed in Chapter 2), the Government indicates that it would assist the development of these enterprises but points out that it “will seek the assistance of donors in analysing ways of improving the policy environment and facilitating the development of small and medium agricultural enterprises” (Central Planning Department, 2006, pg.85). Again, Government does not have the capacity to assist these farmers. The delay in awaiting aid funds and the limitations on how these funds can be used would most likely elongate the hardships faced by

farmers who are now in significant debts because of the declining squash market. Moreover, since studies have shown that small scale farmers in Tonga are more productive than large scale farms, delays in assisting these small holders could also further the deterioration in the country's agricultural export industry.

### ***Agricultural Credit Facility for Small Scale Farms***

An important aspect of small scale agricultural farm development is the consideration of “poverty traps” which prevent these farmers from “taking advantage of opportunities that could help pull them out of poverty” (Todaro & Smith, 2009, pg.437). Several development economic writers have commented on the significant “poverty trap” of credit insufficiencies and Chapter 4 has indicated that this also is of great significance to agricultural farmers in Tonga. These farmers are usually unable to obtain credit because they lack collateral or, as in the case of Tonga, are unable to access credit because they are already in high amounts of debt from previous failed export productions. In these cases, it is almost impossible for these farmers to escape these poverty traps without some kind of assistance.

The SDP8 indicates that the Government acknowledges this “need” and intends on examining “the feasibility of an export credit guarantee scheme as a means of encouraging agricultural production for export” (Central Planning Department, 2006, pg.85). It states that the Tonga Development Bank is leading investigations into this export credit scheme and will later provide this service so as to facilitate “exporters’ access to credit domestically” (Central Planning Department, 2006, pg.85).

The Tonga Development Bank is given this responsibility because it was not only established under a Government Act (Tonga Development Bank Act 1977) but the Tongan Government

is also the sole shareholder<sup>44</sup> of the Bank and the Secretary to Finance is the Chairman of the Bank's Board of Directors. However, despite Government's position in the bank, the ability of the bank to effectively assist smallholders is limited. In effect, studies revealed that agricultural exporters who have debts from squash "find it difficult to refinance loans as the Tonga Development Bank requires a lot of equity and has higher interest rates than commercial banks" (Murray, 2007, pg. 58). According to the Tonga Development Bank website, the bank's lending rates for agricultural development range from 11.5 per cent to 13.5 per cent (2007 rates) depending on the risk profile of the project. High risk projects therefore would find the Tonga Development Bank's lending rate higher in comparison to the lending rate indicator of 12.2 per cent for financial institutions in Tonga (2007 rate) (Ministry of Finance, 2008, pg.23).

Nonetheless, the Tonga Development Bank remains the "major provider of credit for development in the agriculture sector" (Central Planning Department, 2006, pg.85). However, for this credit to actually benefit the small scale farmer and to increase agricultural export productivity it has to be accessible for smallholder rural-based farmers; and it has to be available at a lower lending rate and equity level. Government has yet to publicize any developments on the proposed export credit scheme but there is hope that it will have the characteristics necessary for this assistance to benefit small-scale exporters.

Nonetheless, studies have also shown that informal financial services can also be effective in the development of smallholder export ventures. The World Bank indicates that "microfinance institutions open the menu of available contracts with new arrangements that substitute for collateral" hence has the ability to assist rural-based farmers and women who are "excluded from borrowing through other channels" (World Bank, 2007, pg.144). These

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<sup>44</sup> In 1998, the Westpac Bank of Tonga sold its shares to the Tongan Government hence making the Government the sole shareholder of the Bank.

microfinance institutions however, must adopt innovative measures curtailed to counter the factors which may cause financial instability for growers such as weather conditions and seasonal crops. An example of a successful microfinance service in agriculture, that Tonga can consider, is FUNDEA in Guatemala which offers loans to “short-cycle” tomato and vegetable growers through a “value chain approach” that finances “inputs and outputs, using standing crops as collateral” (World Bank, 2007, pg.145).

#### **v) Market Development and Marketing**

Although MAFF plays a role in identifying agricultural export markets, export promotion and market development are the core functions of the Tonga Trade Department. According to the MLCI website, Tonga Trade is “responsible for the development of profiles and liaise for inward and outward trade missions, organizing business visit programs and development of investment portfolios”. Moreover, under its market development role, the Department assists exporters in identifying markets “through research and gap analysis, development of exporters marketing skills and facilitate the development and implementation of market management plans for product groups”. A senior officer from the MLCI commented on the importance of trade promotion offices such as Tonga Trade by stating that:

“The favourable trade trends, competition will continue to rise and national governments will find themselves at the centre of national effort to ensure that their client enterprises particularly small firms become or remain competitive. The role of trade promotion organizations such as Tonga Trade is very vital – they need to be more proactive, to constantly seek ways to assist the private sector – be it market access, market analysis and information, or general support services”<sup>45</sup>

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<sup>45</sup> Not translated from Tongan

According to this statement, the Government recognizes the vitality of the Tonga Trade Department in promoting the competitiveness of Tongan exports so as to ensure that Tonga maximises its gains from trade. However, this senior officer had also acknowledged in the interview that the ability of the department to effectively carry out its roles is dependent on foreign aid and funds from overseas trade promotion organizations. As such, although the role of this department is vital to export development in Tonga, Government's limited financial capacity restricts the ability of the department to effectively correct market distortions in marketing and market development.

Similarly, a study on Tonga's industrial incentives indicated that these government assistances "may be justified to correct for "spill over" and informational deficiencies" but they incur substantial costs to Government. As such they should be "subject to user charges" (Bosworth, 2006, pg.33). However, applying such user charges may increase efficiencies in Government's financial management but it may prevent many small scale farmers from benefiting from these fundamental initiatives. Conversely, the ones who would most likely benefit from these efforts are the larger and more experienced exporters. Contrarily, compared to small scale exporters, these larger ventures are the ones which "require less of this type of assistance" (Bosworth, 2006, pg.33).

From these discussions, the current roles of Government in Tonga's agricultural development suggest that the Tongan Government acknowledges the existence of market failures in the industry and its responsibility in correcting these inefficiencies. However, as discussed, there are many areas where the Tongan Government fails to bring about greater efficiency. In effect, it appears that just as the market fails to achieve this optimal state of efficiency, so has Government.

## **“From Market Failure to Government Failure”**

In his article “Government Failures in Development”, Krueger defines market failure as situations where “conditions for pareto-optimality are not satisfied in ways in which an omniscient, selfless social guardian government could costlessly correct” (Krueger, 1990, pg.11). However, he states that it is inevitable for Government to also fail because “governments are not omniscient, selfless guardians and corrections are not costless” (Krueger, 1990, pg.11). As such, Government actions or failure to act can result in a less than optimal situation or its intervention could result in an outcome “inferior to that which would be observed under laissez-faire” (Krueger, 1990, pg.11).

### **Reasons for Government Failure in Agricultural Development in Tonga:**

#### **i) “Corrections are not costless”**

The fact that corrections are not costless suggests that Governments may not be able to implement set policies. On the other hand, the policies which it does implement may have unintended consequences. In Tonga, the costs of the public service pay increase and the effects of the November 2006 civil unrest has further reduced Government’s capacity to carry out the roles that it has allocated for itself.

According to MAFF’s 2006 Annual Report, the Ministry’s allocated budget for 2005/2006 was initially reduced by 11.8 per cent from the previous financial year to only T\$3.4 million. 76.4 per cent of this was for wages and salaries alone and 23.6 per cent was for operational activities. However, although the Public Service Pay Settlement in 2005 increased the budget from 3.4 million to 3.6 million, 81.3 per cent was for wages/salaries hence reflecting the 60, 70, 80 per cent salary increases. As such, only 18.7 per cent was left to be shared for the operation of the five different divisions of the Ministry hence reducing the portion for agricultural export development. In effect, the division responsible for bio-security and the

promotion of agricultural export quality, Quarantine and Quality Management Division, was only given an operational budget of T\$158,300 for the financial year 2005/2006.

### ***Reliance on Outside Donors***

Due to Government's insufficient capacity to effectively carry out its efficiency maximising roles, it has grown to rely on outside donors and funding agencies. Consequently, policies are therefore most likely shaped by external political pressures "that were not consistent with the ideal resource allocation goals initially envisaged" (Krueger, 1990, pg.13). As discussed earlier, the Government's dependence on foreign aid suggests that Government intervention in agricultural export development is largely determined by the mandates that govern these aid donors and the timing of these donations regardless of whether they be efficient or not.

One situation of market failure that the MAFF has already identified yet does not have the capacity to correct is the negative externalities of capital intensive agriculture on the natural environment. According to an experiment by the Research and Extension Division of MAFF, "continuous cultivation of Tongan clay loam soils with squash year after year has resulted in a huge depletion in the amount of nitrogen, sulphur and phosphorous nutrient content of the soils; as well as a huge decline in the size of soil particles" (MAFF, 2006, pg.35). Moreover, other studies by this division have found "residues of a wide range of old and new pesticides" at lagoon sediments as well as in wells and groundwater seepage in different parts of rural Tongatapu. The Research and Extension Division stated that this finding "indicates strongly that residual nitrogenous fertilizers applied to squash are transported by water downwards and sideways to coastal water environment" (MAFF, 2006, pg.36).

The Division emphasises the need for Government to regulate the pollution of Tonga's coastal waters with pesticides and fertilizers because it could potentially destroy all life in the lagoon. It has proposed that Government regulate the use of organic fertilizers to restore soil



nutrients and to allow at least 2 years of fallowing to restore soil particles (MAFF, 2006, pg.35). However, as shown earlier, the SDP8 does not include any strategies for the reduction of these externalities.

Government can also fail to ensure that aid funds are effectively used to correct market distortions in a timely manner. This can arise from Government weaknesses in monitoring activities due to their high opportunity costs or administration difficulties such as poor transparency and accountability amongst the Ministries responsible for the administration of the funded projects.

**ii) Government is not a “Selfless Guardian”**

Government is often looked upon to correct market failures because of the assumption that it is a “benevolent” “selfless guardian”. However, Krueger questions this assumption by asking “why is it believed that individuals in the Private Sector act in their self-interest and that individuals in the public sector are motivated by a Benthamite vision of social justice” (Krueger, 1990, pg.13). She states that it is more “realistic to assume that individual actors within the public sector are as concerned with their self-interest as those in the private sector” (Krueger, 1990, pg.14).

In the past, the Tongan Government utilised its “monopoly” power to support its own interests hence causing distortions in areas such as price and distribution. In the 1970s a Government owned Commodities Board was established to issue export licenses to vanilla growers so as to ensure that quality vanilla is exported. However, the Board was also a vanilla exporter and therefore granted itself a licence. Decisions therefore on the vanilla export quantity allocated per exporter were arbitrary, with the Board favouring exporters who were members of the Board over those who were non-members. In effect, the involvement of

the Board not only as a license issuer but a license holder allowed it to grant itself 75 tons of the export quota (Van Der Grijp, 2004, pg.92).

Although Government acknowledged the inefficiency of the Tonga Commodities Board and abolished the institution, it is again however looking at the prospect of establishing another marketing board for Tongan agricultural exports. One of the senior officials from the Ministry of Labour, Commerce and Industries stated that:

“In Tonga’s case a Marketing Board is necessary for coordination of production, marketing storage and quality control to avoid the problem of fragmentation and achieve economies of scale”<sup>46</sup>

Considering the failures of the previous marketing board, it is therefore necessary for Government to ensure that the new board operates solely to maximise efficiencies in production coordination, marketing storage and quality control and to avoid possibilities of rent seeking. However, with the monopoly power that would be granted to this Board, there continues to be a high possibility for Government failure to arise.

Another reason for Government failure is a result of pressure from prominent capital intensive farmers who are also leaders in the Government. The Prime Minister himself owns and operates a squash export company which not only grows squash for export but also acts as one of the middleman organisations for local growers hence exporting squash on behalf of the growers for a percentage of their returns.

### **iii) Governments are not Omniscient**

Government can also fail to achieve efficiency because they neither have perfect knowledge of the market nor the necessary information required to successfully correct potential market

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<sup>46</sup> Not translated from Tongan

failures. This Government failure however could be viewed as inevitable because perfect knowledge is unrealistic. However, Government has the ability to reduce these failures by proactively conducting preliminary studies and researches on particular policies and programmes before their implementation so as to minimise possibilities of market failure. In his book, “From Market Failure to Government Failure”, Ghosh states that “politicians have a tendency to pressurise the bureaus to go ahead with their projects before the complete study of the possible side effects and externalities of these projects” (Ghosh, 2001, pg.268). Because of this the externalities of public sector projects are unknown. The negative externalities of squash production on the environment for example, were only identified recently by the Research and Extension Services Division of the MAFF, after a long decade of intensive squash production that was very much promoted by Government.

Government can also fail to maximise knowledge of the market due to a lack of cooperation and communication with Private Sector and Civil Society members. A report from the National Export Strategy Committee indicated that one of the impediments to the development of the industry in Tonga is the “limited interaction between MAFF research/extension staff and farmers” (Afeaki, 2007, pg.3). Another study by the Commonwealth Secretariat revealed communication issues such as; “the lack of an appropriate forum to discuss a problem about legislation”; and Government’s “poor communication with stakeholders” particularly on new legislations associated with the reforms (Murray, 2007, pg.59).

Consequently, the lack of effective communication between Government and its stakeholders increases information asymmetries particularly amongst small scale farmers and ventures. During the survey for this thesis, agricultural exporters indicated a sense of uncertainty over the recent Government reforms. They stated that they are uncertain of whether trade

liberalisation policies and Tonga's accession to the WTO would have positive or adverse effects on their ventures. Government however has indicated that impact studies were conducted and proved that these reforms would only improve the agricultural export industry<sup>47</sup>. Private sector uncertainties therefore could either be a result of miscommunication or a declining faith in Government.

As discussed in this chapter, both the market system and the Government have failed in bringing about Pareto efficiency. The Government has most recently shown that it believes that liberalisation is the best response to maximising efficiency in the agricultural export industry. However, this chapter reveals that even with liberalisation reforms, Government still has the crucial role of correcting market failures. Government failure to correct these inefficiencies can exacerbate distortions in the economy hence increase welfare setbacks. The next chapter further discusses the importance of Government intervention in a liberalised environment by analysing the removal of the Development License Incentive and the current incentives that Government is providing for agricultural export development. This discussion will take a closer look at the effectiveness of removing policies which are deemed to be Government failures. However, it also reveals that removing Government failures without addressing the market failure that this policy was initially intended to address, may not result in efficiency improvements for Tonga. Contrarily, even with greater liberalisation, Tonga's agricultural export industry may not develop unless these fundamental market failures are addressed.

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<sup>47</sup> These impact studies however were sponsored by the WTO to assist Tonga in its preparation to accede into the organisation in 2007.

## **CHAPTER 6:**

### **Disincentives of Incentives DEVELOPMENT LICENSE INCENTIVE IN TONGA**

The previous chapter revealed that in situations of market failure, efficiency can be maximised through Government intervention. However, it also revealed that this intervention could also result in failure which could exacerbate inefficiencies and welfare setbacks. Since 1978, the Development License Incentive was the Tongan Government's main form of assistance for private sector development. Chapter 4 revealed that the majority of agricultural exporters in Tonga believe that this incentive is necessary for the development of the industry. Contrarily, in July 2007, the Development License scheme was abolished by parliament on the grounds that it increased inefficiencies, hence a form of Government failure.

In view of agricultural exporter's opposition to the removal of the Development License, even when Government considered the scheme to be inefficient, this chapter seeks to identify the reasons for the repeal of the Development License Incentive and the efficiency implications of its abolishment. Moreover, this chapter will also look at the trade liberalisation reform and the incentives that Government is currently providing and compares them to the results of the research for this thesis. The objective of these discussions is to identify the reasons for the ineffectiveness of incentives for agricultural export development and how these failures can be addressed so as to increase efficiency in the industry.

## The Development License Incentive

Given the smallness of Tonga’s economy and its developing status, incentives for industrial development are very limited. Industrial incentives in Tonga were in fact almost exclusively provided under the 1978 Industrial Development Incentives Act, in the form of a fiscal incentive known as the Development License Incentive.

The IDI Act however does not specify any objectives for the Incentive nor does it provide the criteria for selection of eligible activities. The only indication of the purpose and beneficiaries of the Act is given in the Introduction of the Act – “to actively encourage entrepreneurship for the establishment and growth of industries and tourism by granting relief from certain taxes and duties” (Bosworth, 2006, pg.9). MLCI however, which administer the legislation, has made the effort to add clarity to the Act by stating that the Incentive is for the purpose of encouraging private sector activities particularly infant entrepreneurship. They have also opened the License to both foreign and domestic investors in an effort to promote foreign investment.

Fig.25: Development License Incentives and Beneficiaries

Incentives	Manufacturing/ assembling/ processing industries	Tourism projects (motel/hotel cruising vessels & tourist attractions)	Commercial farming for exports	Commercial fishing for exports
Tax holiday (duration is determined by investment value: T\$500,000 - \$3m = 5yrs T\$3m - \$5m = 10yrs over T\$5m = 15yrs)	5yrs for project where more than 90% sales exported annually			
Exemption from Port & Services Tax	Full for project where more than 90% sales exported annually			
Exemption from Customs duty on imported capital equipment	2 yrs; including a duty free vehicle	2 yrs, including a duty free minibus/van	Yes, 2 yrs; including a duty free van/truck	Yes, 2 yrs; including duty free van/truck
Repatriation of funds on foreign investment	Yes	Yes		

Source: MLCI , 2007

According to an information leaflet by MLCI (dated June, 2007), which is reproduced in Fig.25, the eligible sectors for the Development License incentives are the Manufacturing, Tourism, Commercial Farming for export and Commercial Fishing for export industries<sup>48</sup>. However, the incentive does not give equal benefits to each industry. In fact, as shown in Fig.25, the Manufacturing sector relatively benefits<sup>49</sup> more than other sectors. Comparatively, the only benefit given to agricultural exporters is the duty free importation of capital equipment over a minimum of two years<sup>50</sup>.

Nonetheless, although the agricultural export industry benefits less from the Incentive, the assistance given is of great significance to the development of the industry. As discussed in Chapter 4, agricultural exporters believe that the most significant impediment to the growth of the agricultural export industry is the incapacity of the average Tongan agricultural exporter to obtain necessary capital equipment due to their high costs. Importation costs such as customs duties and freight contribute significantly to the expensive nature of these items. As such, the duty concessions provided under the License would make the Incentive a fundamental asset to the development of the average Tongan agricultural export enterprise<sup>51</sup>.

Moreover, the experiences of other developing nations reveal that industrial development incentives can contribute significantly to agricultural growth. In his book, "Introduction to Development Economics", Ghatak recommended Government provision of inputs such as

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<sup>48</sup> However the legislation states that the eligibility criterion is ultimately under the discretion of the Minister for Labour, Commerce & Industries. This has given Government the ability to extend incentive payments to any industry or enterprise that it wishes. In past years, the incentives were extended beyond the legislation to include industrial engineering and automobile services. Moreover, in 2000 the Ministry was instructed by Parliament to extend the incentives to the private electricity supplier (Shoreline Power Limited) owned by a member of the royal family. Incentives were also extended to the new private telecoms operator (the Shoreline Communication Ltd owned "TonFon") also owned by this member of the royal family.

<sup>49</sup> As discussed in the previous chapter, the Ports and Services Tax phased out in 2005 upon the introduction of the new Consumption Tax

<sup>50</sup> Each license extends for an initial period of two years. Upon expiry however, the applicant can apply for an extension of the license hence the minimum period of 2 years.

<sup>51</sup> Moreover, the exemption of agricultural export enterprises from tax holidays has minimal effect on the industry because all agricultural income is exempted from income tax payments.

fertilizers and pumps for irrigation. He states that the provision of these subsidies by Government would help increase the farmer's income thus leading to an increase in productivity hence growth. Although the Development License Incentive does not directly provide these inputs, it significantly reduces the costs of these inputs to the farmer thus having a similar effect to that proposed by Ghatak (Ghatak, 2003, pg.244). As such, the Development License Incentive should have contributed to agricultural growth in Tonga.

Nonetheless, as stated before, regardless of the opinions of local agricultural exporters and the alleged benefits of the incentive, the Government decided to abolish the Development License Incentive in July 2007.

### **WTO Accession and the Repeal of the Incentive**

A study by the Commonwealth Secretariat on the impact of the repeal of the Development License Incentive on the Private Sector in Tonga indicated that Government's rationale for the removal of the Development License Incentive was "part of its programme of fiscal reforms in preparation for its accession to WTO" (Murray, 2007, pg.37). In view of the export incentive nature of the Incentive, WTO members expressed concerns on how the Development License Incentive "amounted, either in law or in fact, to prohibited export and import substitution subsidies" (Bosworth, 2006, pg.10). In response, Tonga agreed to eliminate "all the benefits provided for in the IDI Act" upon its accession in 2007 (MLCI, 2006, pg.1).

### **WTO Rules on Incentives**

WTO "Agreement on Subsidies and Countervailing Measures" (ASCM) has a long list of what WTO deems to be a Government subsidy. This includes: direct or potential government transfers of funds or liabilities e.g: grants, loans, loan guarantees; government revenue



foregone such as fiscal incentives; government provision of goods and services “other than general infrastructure”; and income or price support (WTO, 2002, pg.231). In effect, any Government assistance which confers a benefit is deemed by WTO to be a subsidy (WTO, 2002, pg.231). The Development License Incentive therefore, based on the fact that it is a fiscal incentive (hence a form of foregone government revenue) which confers benefits to certain industries, qualifies as a Government subsidy.

Subsidies which are deemed “specific” by WTO are prohibited. According to ASCM Part II Article 2, subsidies are specific when they are limited to certain industries or enterprises or regions. The WTO believes that “the more specific a subsidy then the more concentrated its benefits and trade-distorting will be the measure” (Bosworth, 2006, pg.17). As such, the prohibition of subsidies is also an effort to protect the interests of trading partners.

ASCM Part II Article 3 states that “subsidies contingent...upon export performance” are prohibited (WTO, 2002, pg.233). Annex I of the Agreement lists out an exhaustive list of these subsidies which include: provision of direct subsidies contingent on export performance; “currency retention schemes” involving a bonus on exports; more favourable “internal transport and freight charges on export shipments” than for domestic shipments; more favourable provision of goods or services for the production of export goods than for production of goods for domestic consumption; deductions relating to exports or export performance which exceeds those for domestic sales in the calculation of the income base of direct taxes; and remission or exemptions of indirect taxes on the production and distribution of exports which exceeds those for domestic consumption.

In view of the nature of the Development License Incentive in comparison to the ASCM, the Incentive would appear to qualify as a prohibited export subsidy. The provision of tax holidays for the manufacturing industry on the condition that at least 90 per cent of annual

sales are to be exported could be WTO inconsistent. Moreover, the two-year duty free importation of capital goods for manufacturing, commercial farming and commercial fishing based on exports could also qualify as prohibited subsidies.

However, although these aspects of the Development License appear to justify the removal of the Incentive, it was not necessary for Tonga to entirely abolish it. According to the WTO Agreement on Agriculture Part V Article 9, member countries are allowed to provide export subsidies for agriculture but in accordance with its commitments under the “Member’s Schedule” (WTO, 2002, pg.40). A Commonwealth Secretariat Study on Tonga’s Industrial Incentives indicates that agricultural subsidies and domestic support within Tonga’s agricultural commitments are WTO consistent (Bosworth, 2006m, pg.26). As such, Tonga would not violate WTO laws if it continues to provide domestic support such as the current exemptions on payments of Income Tax and Consumption Tax for agricultural farmers and/or extend export subsidies to agricultural exporters such as that provided under the Development License Incentive. In any event, Tonga agreed to eliminate all benefits of the Development License Incentive upon its accession<sup>52</sup>.

Tonga however could be challenged by its trading partners based on the argument that the Incentive is an “actionable industrial subsidy”. According to the ASCM Part III Article 5, “no member should cause, through the use of any subsidy, adverse effects to the interests of another Member” (WTO, 2002, pg.235). However the study on Tonga’s Industrial Incentives states that “the grounds of ‘serious prejudice’, perhaps the easiest of the ‘adverse effects’ allowed for in the ASCM to challenge actionable subsidies, could not be used against a developing country, like Tonga” (Bosworth, 2002, pg.27). Bosworth claims that Tonga’s

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<sup>52</sup> However, as will be discussed later, the new Tariff and Excise Act extended “zero-rated” tariffs to all capital equipment imported for business development. As such, the Agricultural Sector still continued to receive the assistance that was given them under the Development License Incentive.

level of subsidies is too small and Tonga's exports pose "low competitive threat" hence such challenges are highly unlikely (Bosworth, 2002, pg.28).

In view of the discussions on WTO rules and the consistency of the Development License Incentive, it appears that Tonga could have continued to provide the Development License Incentive with minimal threat of challenges from other members. Nonetheless, the Government decision to entirely abolish the Development License Incentive upon its WTO accession suggests that there may have been other reasons for the repeal of this subsidy.

### **Efficiency of the Development License Incentive**

The objective of the Development License addresses market failures in the development of infant industries particularly in the importation of necessary capital equipment required for their initial development. However, studies also reveal that the use of the Incentive "to assist exports and/or promote local value added or domestic content risks distorting the Tongan economy by mis-allocating resources into relatively less efficient activities" (Bosworth, 2006, pg.10). As such, although its objective indicates an intention to correct market failures, certain aspects of the Incentive could in fact exacerbate market inefficiencies.

### **Financial Costs of the Incentive**

The Development License Incentive does not involve direct financial grants but rather entails "potentially generous tax or fiscal incentives that cost the government in revenue foregone" (Bosworth, 2006, pg.12). The cost of the Incentive is categorized as "tax expenditure" in the Tongan Budget along with the other two main tax expenditure categories of "government projects" and "fuel". As illustrated in Fig.26, the cost of the Incentive to the Government significantly rose to T\$5.7 million in 2004 - 05 from T\$2.98 million in 2003 -2004; but fell

by over 80 per cent in 2005-06 to T\$0.9 million (Bosworth, 2006, pg.12)<sup>53</sup>. The 2006 – 07 Budget Estimates indicated that the tax revenue losses due to the Development License Incentive, excluding those from tax holidays, totalled T\$0.5 million (Ministry of Finance, 2007, pg.56). Although the revenue losses from the Development Licence Incentive had decreased significantly, the Commonwealth Secretariat Study on Tonga’s Industrial Development Incentives indicated that “it could rise again if not checked” (Bosworth, 2006, pg.11).

Fig.26: Government Revenue Foregone (T\$millions)



Source: Bosworth, 2006, pg.11

Moreover, the MLCI indicated that the cost of tax holidays have also involved substantial revenue losses for the economy. In effect, for just the 13 tax holidays granted since 2000, Government revenue losses from tax holidays totalled T\$4.6 million (Bosworth, 2006, pg.11).

The current fiscal deficit precipitated by the events discussed in Chapter 1 indicates “an urgent need to redress Tongan fiscal imbalances, including undertaking necessary taxation and expenditure reforms” (Bosworth, 2006, pg.11). In view of the significant contribution of

<sup>53</sup> This decrease reflects the temporary suspension of the Development License Incentive from May to August 2005 and the abolition of the Ports and Services Tax incentive in April 2005 upon the introduction of the Consumption Tax hence leaving the 2 year duty free importation of capital goods as the main remaining fiscal incentive under the Development License.

the Development License Incentive to the budget deficit, it was therefore important to address this loss of Government revenue particularly if the Incentive is found to be ineffective in achieving its objectives of promoting investment and export hence unable to recover costs to the Government.

### **Administrative Costs of the Incentive**

According to the Commonwealth Secretariat Study on Industrial Development Incentives in Tonga, the Development License was identified to be highly abused. Within the Tourism Industry for example, a Ministry of Finance survey on Development License holders found “not one of the facilities had complied with the License conditions, resulting in the provision of a significant amount in tax exemptions for virtually no benefit to the Tongan tourism industry” (Murray, 2007, pg.39). Moreover, allegations suggest that tourist facilities mostly became residential homes and the imported building materials were often re-sold. Tax holidays which are “inconsistently and non-transparently applied” were also claimed to be abused by this industry and encouraged “tax evasion for enterprises that may run several activities, with incentives to shift income into the activity with the tax holiday and to transfer expenses from this activity to the non-taxed activity” (Bosworth, 2006, pg.16).

However, although the legislation regulates the retrieval of Development Licenses if found to involve the “misuse or disposal of goods” imported under the License, these regulations are poorly enforced by Government (Bosworth, 2006, pg.16). The Commonwealth Study on Tonga’s Industrial Incentives indicates that this poor administration of the legislation reflects the “difficult nature of the enforcement task” (Bosworth, 2006, pg.16). However, it indicates that increasing resources for enforcement is highly unlikely to reduce misuse and abuse of the incentives. Even if it is found to be effective, it would only result in a significant rise in the administrative costs of the Incentive. In effect, the study indicated that the Development

License Incentive is bound to be abused because “nothing facilitates tax evasion, mis-use and possible public corruption more than introducing fiscal exemptions that are based on non-transparent criteria, involve substantial discretion by officials, and may be captured by political inference” (Bosworth, 2006, pg.16).

Administrative costs are also identified in the Customs Department’s role of “deciding eligible goods to be imported under a Development License” (Bosworth, 2006, pg.15). The Customs Department receives a list from MLCI on the nature and quantity of capital goods to be imported under a certain Development License. However, the description of these goods is often very broad (building materials, machinery and equipment) hence making it difficult for the Customs officers to decide on the exact capital good to be allowed for exemption. In many cases this difficulty causes Customs to exempt capital goods which “broadly fit” the given description but are not necessarily capital equipment for the development of the enterprise. The Customs Department indicated that “the current lists of eligible goods were virtually impossible to administer without abuse, and that elimination of these Incentives would significantly reduce administration costs” (Bosworth, 2006, pg.15).

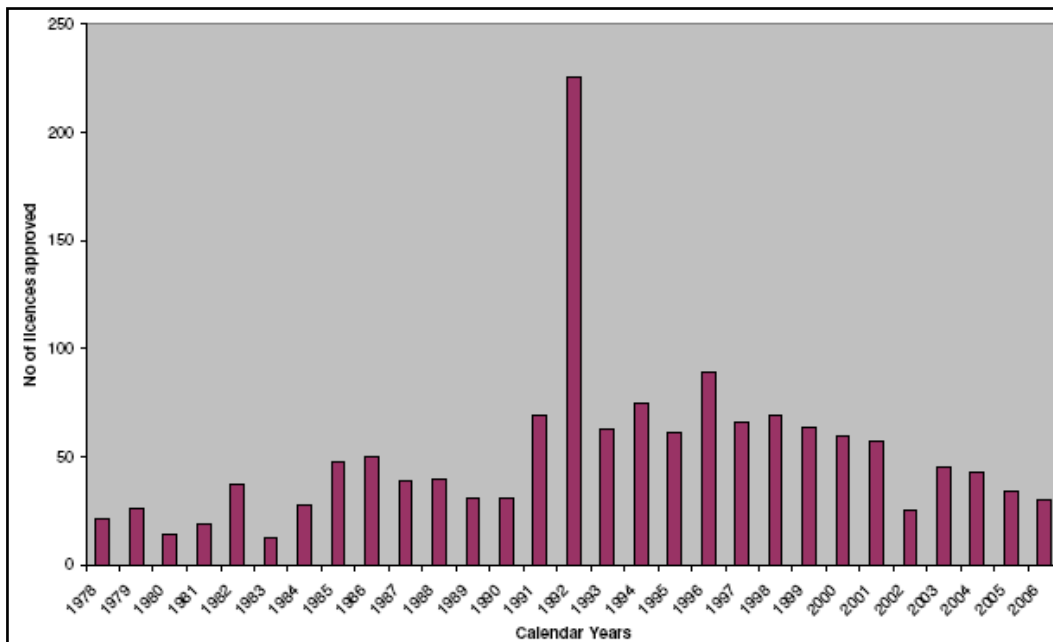
Moreover, evidence has also indicated that the Development License added administrative burden particularly to small enterprises. The application process for a Development License requires the applicant to submit substantial documentation such as: a Business Plan; a list of the capital goods to be imported and the estimated quantities to be imported for each; bank statements; and letters of support from Ministries related to the project. For a small business, these requirements can be burdensome particularly when changes to these documents after submission to MLCI would require authorization by the Ministry.

Finally, while the authorization process may be lengthy and burdensome to investors, it is also costly for MLCI to administer. The demanding nature of the administration task has

restricted several of the Ministry’s staff members to Development License related tasks only. This has consequently affected the Ministry’s ability to effectively carry out other fundamental roles such as investment promotion and private sector development, particularly after the redundancy programme in 2006 reduced the size of the Ministry. Resources allocated to the administration of the Development License could therefore be “better used in executing alternative functions that would make a greater contribution to the performance of the Tongan economy” (Bosworth, 2006, pg.15).

### Utilisation of the Development License Incentive

Fig.27: Utilisation of the Development License Incentive 1978 - 2006



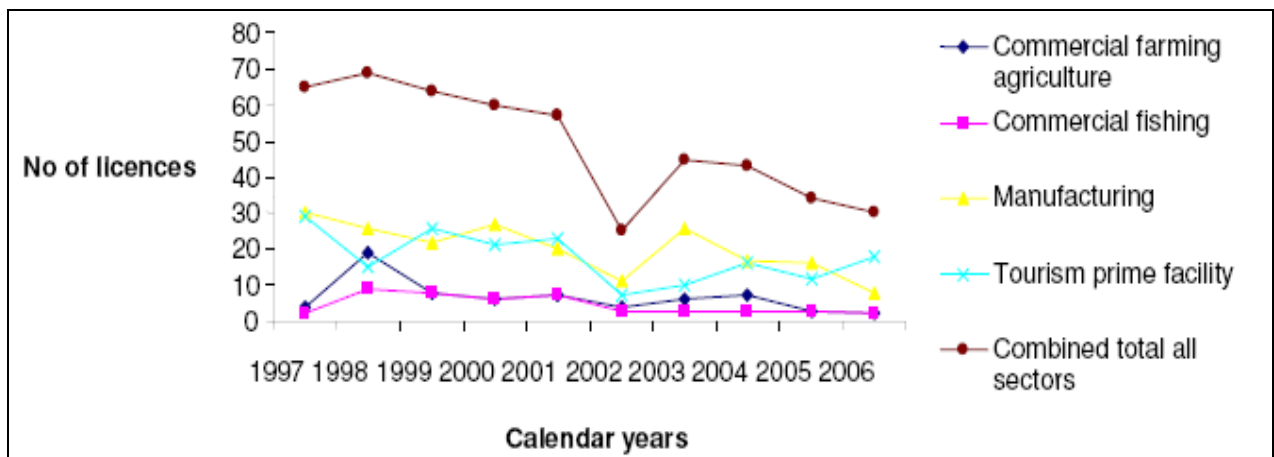
Source: Murray, 2007, pg.38

As depicted in Fig.27, the pattern of utilisation has been “variable” since the establishment of the Incentive in 1978. In 1992, utilisation extraordinarily increased with 226 licenses being approved during that single year. 168 of these licenses are identified to have been for the establishment of enterprises for agricultural export or commercial farming for export

reflecting the “prevailing high export demand for squash” (Murray, 2007, pg.38). However, since 1996, utilisation has been on a declining trend<sup>54</sup>.

Figure 28 also reveals that the utilisation of the Development License Incentive by all of the four eligible sectors had decreased over the last decade. Of these eligible industries, the commercial farming for export and commercial fishing for export sectors were recorded to have least use of the Incentive particularly since 1996. For these sectors at least, the significant drop in the use of the Development License reflects the deterioration in these industries due to the decline in the squash export market since the late 1990s and the decrease in fish supply since 2003/2004. As such, “there are no obvious signs that Development License Incentives have contributed to entrepreneurship by promoting investment, including in exports” (Bosworth, 2006, pg.13). In effect, the utilisation statistics suggests that the Development License only plays a minimal and secondary role in promoting private sector activities. For export development in particular, it is the export market and prices which provide the primary incentive for an investor to invest or for an exporter to export.

Fig.28: Development License Utilisation by Sector 1997 - 2006



Source: Murray, 2007, pg.40

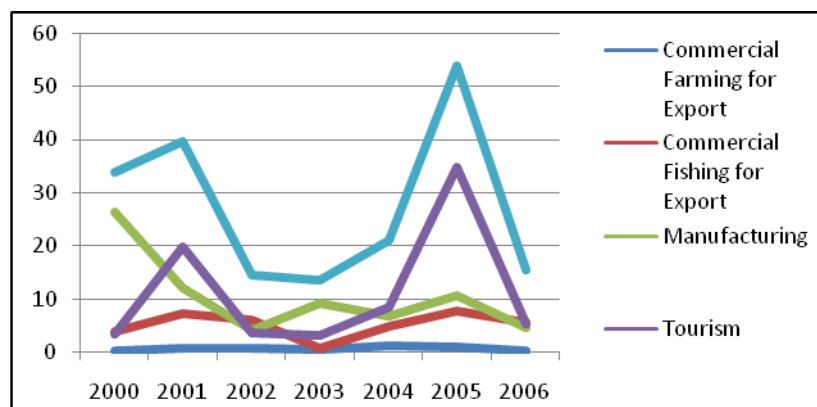
<sup>54</sup> Development Licences were liable to be renewed after every two years. Therefore the utilisation statistics given in Fig.27 includes renewals of export development licenses. The number of times a development license holder can renew its license is under the discretion of the Minister and the Standing Advisory Committee of the Development License Incentive.



Moreover, the Commonwealth Secretariat study on Tonga’s Industrial Development Incentives revealed that the Development License Incentives did not cover the main “tariff-inflated costs on business investors” (Bosworth, 2006, pg.11). According to this study, approximately half of capital goods imported are covered by the Development License Incentives. However, the “tariff duty paid on non-fuel intermediate inputs (T\$4.3 million) exceeded that paid on imported capital goods (T\$0.5 million) in 2004-05 by over eightfold” (Bosworth, 2006, pg.11). As such the fact that the Development License Incentives does not cover the tariff inflated costs of necessary intermediate inputs and raw materials suggests that all domestic producers particularly exporters are penalized<sup>55</sup>. In essence they “sell at world prices and receive no protection on sales” (Bosworth, 2006, pg.13). This factor could highly contribute to a lack of enthusiasm for the Development License Incentive.

### Value of Investments under the Development License Incentive

Fig.29: Value of Industrial Investments with Development Licenses 2000 – 2006 (T\$m)



Source: Murray, 2007, pg.40

Figure 29 illustrates that the value of investments have also been variable apart from substantial increases in 2001 and 2005. However, although the graph illustrates that these increases were triggered by growth in the Tourism Industry, they were in fact a result of the

<sup>55</sup> This may not largely affect agricultural exporters who are exported from the payment of Consumption Tax but other sectors would most likely be significantly affected.

approval of Development Licenses for the Shoreline Power Limited and the Shoreline Communications Limited, as instructed by Parliament, under the incomprehensible interpretation of the legislation that telecommunications and electricity generation were “tourist related services” (Bosworth, 2006, pg.5).

The size of these companies and the capital intensive nature of these industries have caused them to be dominant beneficiaries of the Development License Incentive even when they do not fall into the eligible categories given by MLCI . In effect, the 2006-2007 Budget Papers indicate that the main beneficiaries of the Development License Incentive were utilities which accounted for 43 per cent of total revenue foregone; manufacturing (21 per cent); communications (16 per cent), tourism (13 per cent), fisheries (7 per cent) and agriculture (3 per cent) (Ministry of Finance, 2007, pg.56).

Moreover, the study by the Commonwealth Secretariat on Tonga’s Industrial Incentives revealed that the Shorelines Power Ltd, Tonga Gas Ltd (although to a much smaller extent), Shorelines Communication (Tonfon), and the state owned Tonga Telecommunications Commission “accounted for two-thirds” of the Development License customs duty incentives in 2004-05 (Bosworth, 2006, pg.13). The eligibility and the relatively high levels of benefits given to these four companies appear to highly contradict the objective of the Development License Incentive to “promote infant entrepreneurship”.

Nonetheless, the total value of investments of T\$171.5 million over this period is “significant in Tonga” and the “totals for each industry sector represent important levels of investment in each sector” (Murray, 2007, pg.41). However, it is important to note here that these values are estimated values given by the investor upon the submission of their Development License applications hence prior to the actual establishment of the enterprise. Moreover, as stated

before, many of these applications are later identified to be fraud hence suggesting that the total values illustrated in Fig.29 are highly exaggerated.

Furthermore, the Commonwealth Study on the Potential Impacts of the Fiscal Reforms on the Private Sector in Tonga indicated that although these values are significant to the country they “do not necessarily imply that the projects would not have proceeded had the incentives not been provided” (Murray, 2007, pg.41). In fact researches for this study revealed that investors found the Development License “to be helpful in starting up their business which also had the advantage of bringing together all the components required for starting a business into a “one stop shop” in the absence of a co-ordinating industry development agency” (Murray, 2007, pg.41). As such, the incentives provided under the Development License were seemingly secondary to other factors such as the operation of MLCI as a “one-stop-shop” to facilitate business development.

In view of the inability of the Development License to promote private sector development and infant entrepreneurship particularly in periods of deterioration in export markets, the Incentive could be viewed as an inefficient form of Government intervention. The World Bank had advised agricultural based countries on the use of subsidies by stating that they should be “used with caution because they have high opportunity costs for productive public goods and social expenditures and they risk political capture and irreversibility” (World Bank, 2007, pg.13). The inefficiency of the Development License in correcting market failures in business development in Tonga suggests that it has consequently cost the Government and the country in productive public goods and social expenditures that would have otherwise promoted national and economic welfare.

As discussed earlier, the high opportunity cost resulting from the inefficiency of the Development License Incentive can be largely attributed to the lack of transparency and

clarity in the objectives and eligibility criteria for the Incentive. This opened up areas for Government failure and further setbacks in efficiency for Tonga. In view of these reasons, it is most likely that Government's only solution for ending these inefficiencies was to abolish the Development License Incentive.

## Trade Liberalisation

Upon the repeal of the Development License Incentive, Government has moved towards greater trade liberalisation through the reduction of its tariff and excise rates. In accordance with WTO provisions in its General Agreement on Tariffs and Trade 1994, Tonga has committed to the tariff and excise duty rates depicted in Fig.30.

Fig.30: Amendments to Tonga's Tariff and Excise Duty Rates

	June 2005	Late 2007 (anticipated)
<b>Customs Duty</b>	9 Rate bands	3 Rate bands
Minimum	0%	0%
Maximum	At least 350%*	20%
Most common	various	20%
<b>Excise Duty</b>		
Alcohol	Customs tariffs applied*	Sliding scale of specific rates based on alcohol content
Tobacco	Customs tariffs applied*	Uniform rate per kg of tobacco
Petroleum fuels	Customs tariffs applied*	Motor vehicle gasoline \$0.30/litre Other fuels \$0.20/litre
Motor vehicles	Customs tariffs applied*	\$1 per cc
* 350% applied to certain alcoholic beverages that are planned to be converted to excisable items.		
**In June 1985, amendment of the former Customs and Excise Act, 1984 converted customs tariffs on alcoholic beverages, tobacco products and petroleum fuels to excise taxes.		

Source: Murray, 2007, pg.30

Tonga's commitments in its WTO accession include setting all tariffs at a bound rate of 20 per cent. Moreover, capital goods will be exempted from duty payments and customs duty on non-fuel intermediate inputs will be "progressively phased out over a period of 3 years

beginning from 1<sup>st</sup> July 2007” (Murray, 2007, pg.30). The Government indicated that these changes are to help “preserve the competitiveness of Tonga’s private sector” (Murray, 2007, pg.30).

In relations to the Development License Incentive, the new tariff law places a zero tariff rate on all capital equipment for business development hence cancelling the need for any revival of the Development License Incentive. Moreover, the new tariff would also reduce the tariff-inflated costs of non-fuel intermediate inputs which were not covered under the Development License Incentive hence increasing benefits to the private sector.

Furthermore, the characteristics of the amendments to the customs and excise legislations would reduce opportunities for government failure although at the cost of possible reduction in Government revenue due to the decrease in tariff rates<sup>56</sup>. According to the Government, these new legislations would be “simpler to administer” and the need for court action would be removed since penalties are included in the legislations. The new legislation also coincides with comparable jurisdictions under the Government’s fiscal reforms such as that with the new Consumption Tax<sup>57</sup> and Income Tax hence allowing the reforms to better achieve its intended goals of increased efficiency in the economy.

In addition, the study on Tonga’s Industrial Development Incentives by the Commonwealth Secretariat also supported this trade liberalisation reform by stating that it is the “best policy response” for Tonga. According to the study, “reducing assistance by lowering trade barriers, especially to relatively high cost activities, rather than providing compensatory assistance via export incentives, is more efficient” (Bosworth, 2006, pg.32). In essence, trade liberalisation

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<sup>56</sup> Government concerns have arisen over possible declines in Government revenue due to reduced duty rates particularly in the reduction of duty on motor vehicles from 45 per cent to 25 per cent. As such Government has now introduced a new excise tax on motor vehicles where imported vehicles are to be charged at a rate of T\$1 per cc of engine capacity (Murray, 2007, pg.30)

<sup>57</sup> The costs of the exemptions for capital equipment importation is expected to be covered by the revenue from the Consumption Tax introduced in 2005.

would remove impediments that affect Tonga's competitiveness and export potential hence positioning the country for long term growth (Bosworth, 2006, pg.32).

Although there has yet to be any evaluation of the possible impact of this trade liberalisation on the economy, the reasons given appear to be sufficient in convincing the Government that it is the best "policy response for the country". However, this thesis would like to make an attempt in verifying the efficiency gains predicted to result from greater liberalisation by examining whether the WTO consistent incentives currently provided by Government for agricultural export development would address the market failures identified in the survey for this thesis.

### **Effectiveness of Agricultural Export Assistance**

The discussions earlier revealed that the Development License Incentive may not have been as effective in promoting export development as agricultural exporters believed. Not only was the utilisation of the Development License by agricultural exporters minimal, but statistics also revealed that after the decline in the squash trade it was in fact the agricultural export sector which benefitted the least from the subsidy. Moreover, the current poor performance of the agricultural export sector discussed in Chapter 1 serves to validate the belief that the Development License Incentive was ineffective in promoting agricultural export development in the country.

Although these reasons justify the removal of the Development License Incentive, it does not necessarily suggest that the assistances which are considered consistent with trade liberalisation principles would be more effective in promoting agricultural export development. This thesis would like to make an attempt in exploring this issue by looking at the results of the survey discussed in Chapter 4.

### **Effectiveness of Duty Exemptions on Capital Equipment**

According to the survey the first impediment to agricultural export development lies in the “incapacity” of agricultural exporters to obtain capital equipment necessary for the development of their ventures. As discussed in Chapter 4, the average exporter today believes that development is synonymous with economies of scale and, for this to take place, they believe that capital formation is necessary.

The importance of capital formation in agricultural development is also well documented in development literature. In his book, “The Role of Agriculture in Economic Development” Kjeldsen-Kragh, reveals that “technological and institutional changes” were fundamental in agriculture in every stage of its development. He states that “in feudal societies, agriculture was more or less stagnant, and it was only when technological and institutional changes started to occur that productivity increases accelerated” and once agricultural growth began, the industry continued to develop because of further technological and institutional changes (Kjeldsen-Kragh, 2007, pg.120). Other studies have also shown that “new agricultural technologies and innovations in farm practices are preconditions for sustained improvements in levels of output and productivity” particularly for small-scale agriculture in developing countries (Todaro & Smith, 2009, pg.462).

Accordingly, the role of capital formation in agricultural development suggests that any assistance which increases the farmer’s accessibility to capital inputs would contribute to agricultural growth in Tonga. As such, duty exemptions on capital equipment would be considered an effective assistance that Government should provide. The continued exemption of capital equipment from tariff payments under the new tariff and excise Act suggests that Government also acknowledges the importance of capital formation to business and export development.

Moreover, the provision of this incentive under a liberalised trade environment is expected to produce efficiency gains for Tonga. Economists claim that taxes on imports are taxes on exports since inputs for export production are largely imported. Based on this claim, studies by international organisations have suggested to the Tongan Government that “an efficient exporter requires having access to imported inputs at international prices and quality” hence indicating that “open access to imports in a competitive economy is the most effective engine for promoting exports” (Bosworth, 2006, pg.31).

However, in the real world, the free market policy in trade may not necessarily be as effective because of the existence of market failures in the domestic economy. Although Tonga’s trade liberalisation reform offers the benefits of the Development License Incentive to the agricultural export sector in a more efficient, transparent and less restricted manner, it may not fully address the market failures which prevented the Development License Incentive from fostering agricultural export growth. Capital formation, even before import costs are added, is expensive particularly for the average small-scale Tongan farmer. As such, although trade liberalisation assists in reducing import costs, it may not necessarily provide the average Tongan farmer with the capacity to purchase or obtain these expensive equipments.

According to the survey, agricultural exporters believe that the second most significant impediment to agricultural export development in Tonga is the “difficulty of raising capital”. As discussed in Chapter 4, many farmers are trapped in debts from squash which prevents them from accessing the necessary funds to pay off their liabilities and further develop their ventures. Moreover, as revealed in Chapter 5, the average farmer lacks the necessary collateral required to access funds from financial institutions even from the agricultural development funds of the Tonga Development Bank. Such market failures in the credit



market are not addressed in trade liberalisation or in duty exemptions hence suggesting that these reforms alone may not be as efficient or effective in promoting agricultural export in Tonga.

Furthermore, the inability of farmers to access credit would innately lead to the third most significant issue of “incapacity to diversify agricultural export production”. As discussed in Chapter 4, many of the agricultural exporters who had specialised in squash production have experienced significant losses due to the decline in the squash market since the late 1990s. This is largely because they lacked the ability, both financially and skills-wise, to manage external risks which are inherently associated with agricultural export and to which the agricultural smallholder exporter in Tonga is not insured against. Consequently, as the survey revealed, many of these farmers have resigned from the agricultural export industry, many with outstanding debts which would further exacerbate rural poverty in Tonga.

### **Effectiveness of Price Incentives**

As mentioned earlier, the Government offers price incentives to the agricultural sector through the exemption of agricultural sales from income tax payments and the exemption of agricultural inputs from the payment of Consumption Tax. One agricultural farmer indicated the importance of this assistance by stating that:

“There’s no tax on agricultural income and I think it is for a good reason because it is a very risky business. This year we make money, next year we don’t - in which case you’d be forever paying losses to the government off your income. Secondly there is a subsidy with regard to all imports of agricultural supplies so seeds, fertilizers, tractors, all that kinds of stuff – no duty plus no CT (Consumption Tax). So it’s been like that for a long time...and it does help...particularly in our old regime, 20 per cent duty plus CT, you know your

seeds would be so much more expensive as well as your fertiliser, tractors and on and on. So it does make it easier for farmers. The income tax exemption - that also makes it easier for farmers to farm. They know that if they make a \$100,000 this year, no tax will be taken particularly now that tax has gone to 20 per cent of income. So it's a good incentive for farmers to earn more money without having to pay tax. [But] if you're a farmer, you take on more risk than other people because on one big drought or disease or whatever...[you lose everything]. So...you can take your risk of being a farmer and earn no money one year and then lots of money the next year but not pay tax”<sup>58</sup> (Coconut Exporter)

According to this statement, price incentives given by Government is not only considered “helpful” to farmers but it is also an incentive for them to continue farming even when natural disasters or other external shocks result in temporary losses. Studies by the World Bank have also indicated that such incentives have also been effective in enhancing smallholder productivity in developing countries such as Indonesia, Thailand and Malaysia.

According to the World Bank, “high taxation of agriculture was associated with low growth in agriculture – and slower growth in the economy” (World Bank, 2007, pg.98). Conversely, reductions in net taxes imposed on the agricultural sector have largely reduced “domestic price and trade policy exploitation of farmers in developing countries now (late 1990s to current date) than in the 1980s” (World Bank, 2007, pg.102). As such price incentives are not only an essential incentive for farmers but it also plays a significant role in promoting national welfare through enhancing domestic food supply. Through these tax exemptions, farmers in Tonga are motivated to continue farming despite external risks hence maintain the

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<sup>58</sup> Not translated from Tongan

supply of agricultural foods in the market<sup>59</sup>. Moreover, it reduces domestic prices hence promoting national welfare as food prices are maintained at an affordable level.

Nonetheless, the statement given by the Tongan coconut exporter gives insight into the level of risks to which the average agricultural farmer is exposed. According to this exporter, agricultural farmers in Tonga cannot maintain a regular agricultural income due to the unpredictable and devastating effect of natural disasters. However, rather than proactively making the effort to manage these risks and to reduce the vulnerability of their farms to external shocks, average agricultural farmers are instead forced into accepting the irregularity of their income as a way of life. Consequently, it could be difficult for the average agricultural farmer to raise the living standards of his family whilst living a lifestyle where some income is earned one year and none the next year. Since price incentives do not address the vulnerability of the average agricultural farm to external risks, it is very likely that this form of assistance would not only be ineffective in raising agricultural productivity but it would also be ineffective in promoting national welfare particularly for the majority of the rural poor.

In view of the comparisons of current incentives for agricultural development in Tonga and the impediments identified by agricultural exporters, it is apparent that Tonga's agricultural market is restricted largely by market failures in credit accessibility and risk management. These market failures contributed to the ineffectiveness of the Development License Incentive in promoting agricultural export productivity yet they continue to be overlooked by Government in its current incentives. This suggests that the state of agricultural growth in Tonga may remain unchanged even with trade liberalisation.

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<sup>59</sup> Agriculture is particularly important to Tonga's domestic food supply because the main staple food consists of yams, taro and cassava.

## **The Way Forward**

Since the views of agricultural exporters helped reveal the market failures that limits the effectiveness of Government incentives, it may also be worthwhile to consider their views on the way forward for agricultural development in Tonga so as to identify how Government can maximise efficiency. According to the survey for this thesis, most agricultural exporters believe that the most important incentive that Government should provide for agricultural export development is the “protection of small scale enterprises”. They also indicated a need for a revival of the Development License Incentive because of the duty exemptions the License extended. However, as discussed in this chapter, exemptions of all capital equipment from duty payments are included in the new tariff and excise law hence cancelling the need for the revival of the Incentive. Thirdly, the survey revealed that agricultural exporters emphasised the need for increased market research.

### **i) Protection of Small Scale Farms**

It is ironic that whilst the Tongan Government is moving towards greater liberalisation, small scale agricultural farmers are demanding greater protection. Chapter 5 indicated that agricultural farmers were uncertain of the possible effects of the liberalisation reforms and the WTO accession on their ventures<sup>60</sup>. Chapter 4 indicated that agricultural exporters felt threatened by the opening up of local industries to foreign investors who could take over their businesses. However, according to MLCI, Tonga’s new investment policy reserves the production and farming of root crops (yams, taro, sweet potato, and cassava), squash and other prominent cash crops<sup>61</sup> for locals only hence foreign investors would not be able to enter these industries. Although emerging cash crops such as coffee and butternut and other

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<sup>60</sup> Prior to the accession, Oxfam had widely publicized the negative effects of Tonga’s membership in the WTO causing increased uncertainties amongst Tongans particularly small scale ventures and exporters.

<sup>61</sup> Paper mulberry and pandanus which are used for local handicraft-making is also reserved along with kava.

potential agricultural exports are opened up to foreign investment, the restriction of the prominent and traditional cash crops to local farmers eliminates some of the threats that are discouraging local farmers. Government efforts to reduce information asymmetries could assist in lessening insecurities amongst farmers.

However, these efforts may not succeed in eradicating market failures which threaten the existence of small scale agricultural export operations in Tonga. In effect, Tonga's accession to WTO and Tonga's trade liberalisation reforms may neither make much difference to the situation. One exporter indicated his concern over Tonga's accession to the WTO by stating that:

“I want to know what Government is going to do to help us growers here in Tonga because from my understanding, WTO rules prohibit subsidies. If they enforce these rules here, what about the United States and other larger countries such as Japan who are members of the WTO but still give subsidies to their farmers”<sup>62</sup>

This farmer recognizes the imposing threat of Tonga joining a “game” where the prominent players do not comply with the “rules of the game”. The farmer represents the uncertainties of many small growers over why its Government has to fully comply with WTO rules hence abolish subsidies whilst larger countries who can significantly affect world trade, including returns for Tongan agricultural exports, can continue to provide subsidies to their farmers.

The WTO rules however does little to correct the situation. In effect, the current Agreement on Agriculture “did not lead to significant liberalisation in the trade of agricultural products” particularly because the “domestic farm policies of the major industrial countries have been

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<sup>62</sup> Translated from Tongan

required to make only relatively minor changes to bring them into conformity with the Agreement” (Coleman, Grant, et al, 2004,pg.118).

The World Bank Report for 2008 indicated that “by removing their current level of protection, industrial countries would induce annual welfare gains for developing countries estimated to be five times the current annual flow of aid to agriculture” (World Bank, 2007, pg.11). The report states that with full trade liberalisation, “international agricultural commodity prices are estimated to increase on average by 5.5 per cent” (World Bank, 2007, pg.11). As such, although full trade liberalisation is believed to be beneficial for Tonga hence justifying its current reforms, these benefits however may not entirely materialise because world trade agreements fail to enforce equal compliance of all members to the rules of efficiency and full trade liberalisation.

Nonetheless, since Tonga is bound to its WTO commitments, it can do little to protect its farmers. The protection it can provide can only be provided through the: restrictions in its new Investment Act, provision of price incentives, and zero rated tariffs on capital goods. Since these incentives do not address the market failures of credit availability and risk management, small scale exporting ventures may continue to be in jeopardy.

## **ii) Market Research**

In view of the deterioration of the Japanese market for squash and the identified need to increase agricultural export diversification, agricultural exporters reveal their need for Government to prioritise market research initiatives. However, agricultural exporters believe that the market development efforts discussed in Chapter 5 are insufficient and indicate that the solution lies in removing groundless quarantine barriers which restricts market access for Tongan agricultural products.

Quarantine barriers are justified by a country's need to protect itself from foreign pests and diseases. Tonga's MAFF oversees Tonga's biosecurity standards to ensure "the protection of Tonga's economy, environment and people's health from pests and diseases" by "preventing the arrival of exotic pests and diseases and eradicating or controlling those already present" (Ministry of Agriculture, 2006, pg.25). However agricultural exporters indicate that some countries put up quarantine barriers which are not well supported and exist to distort trade particularly affecting small developing countries such as Tonga. One example of this is the ban of kava by European markets based on the belief that kava was toxic. In response to this the International Kava Executive Council (IKEC) conducted toxicological studies which proved that kava was in fact non-toxic (Ministry of Agriculture, 2006, pg.20). However the ban is yet to be removed. One exporter reveals the effect of this ban on the local kava industry by stating that:

"It is known now that the ban in Europe was based on spurious medical evidence. It was not sufficient medical evidence to have a ban on the products. As a result of that, Germany, Switzerland, Italy and France, major markets for us in the Pacific, all cut, they all banned out our goods [kava]. Companies fell over, farmers owing all sorts of money here in the Pacific including Fiji and Vanuatu who were already WTO members. The ban's still there, it was put on without adequate reasons. The medical evidence is totally insufficient. They needed to do a proper study, but they didn't. That's well known now"<sup>63</sup>

Another exporter claims that a similar situation exists in vegetable exports. He indicates that:

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<sup>63</sup> Not translated from Tongan

“...with some of the vegetables we have, we’ve tied up ourselves with agreements. An example is our tomatoes to Fiji, I think it’s very difficult. We used to get quite a bit of money from exporting tomatoes to Fiji but in some years ago we signed a bilateral trade agreement with Fiji where tomatoes are not allowed to be sent to Fiji so what happened there is that Fiji used to get our tomatoes through New Zealand. At that time we were exporting our tomatoes to New Zealand and Fiji was buying out tomatoes from New Zealand – that’s just how stupid it can be. Now we can send tomatoes to New Zealand but they have to be treated – fumigated. But when they’re done the tomatoes come out half cooked because that’s how its’ done and they’ve asked quite a number of times but still it cannot be done so that has really stopped us from exporting tomatoes to New Zealand”<sup>64</sup>

In response to these concerns, a senior official from the MLCI who has been involved in Tonga’s multilateral trade negotiations indicated that:

“Free trade agreements address these issues and SPS [Sanitary and Phyto-Sanitary] issues are handled by SPC [South Pacific Commission]. SPC is the central point for handling SPS concerns. Once a country has satisfied bilateral quarantine agreements the receiving country are obliged to open up. Also the measure of equivalence applies. If New Zealand accepts Tongan tomatoes and has a bilateral quarantine agreement with Tonga, and Fiji has a bilateral quarantine agreement with New Zealand, Fiji is obliged to open up its market to Tongan produce. The necessary supporting infrastructure should also be put in place to support SPS concerns, such as fumigation, hot air treatment plants etc”<sup>65</sup>

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<sup>64</sup> Not translated from Tongan

<sup>65</sup> Not translated from Tongan



Although Government believes that free trade agreements and bilateral agreements can resolve many of the unfounded quarantine restrictions on export markets for Tongan produce, agricultural exporters are not as hopeful. One exporter stated that:

“...that’s what we’ve done in recent years. We’ve pushed New Zealand, we’ve pushed Australia, pushed Fiji, pushed Samoa and we didn’t get anywhere...we started to review what the quarantine requirements were to Fiji – that was August last year [2007]. I worked through MAFF Tonga here and approaching MAFF Fiji directly through MAFF Tonga. By this March as far as I know, nothings’ happened, probably won’t happen for another five years”<sup>66</sup>.

However, Tonga’s ability to use these mediums to maximise its benefits may largely depend on Government’s bargaining power and negotiation skills since negotiations can only be done between Governments. One exporter claims that the Government should be more hard lined on international quarantine negotiations. He states that:

“The way that quarantine thing works is from government to government. If I try to talk to Australian Quarantine, they won’t even ask why, it’s just not done. If I’m not Australian they won’t talk to me. They only talk to Tonga Quarantine or New Zealand Quarantine. To date I think we’ve been very soft, Tonga is very much, you know, ok, ok, just agree. ‘It’s ok’, ‘It’s ok’, well it hasn’t been ok for us here. If the barriers were not here, we’d be doing far, far better”<sup>67</sup>

A senior official from MAFF however, not only agreed to Tonga having a “soft” approach to negotiations but believes that this technique is necessary in order to avoid any ensuing costs

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<sup>66</sup> Not translated from Tongan

<sup>67</sup> With some translations from Tongan

to the country particularly when negotiating with prominent trade partners such as Australia and New Zealand. He states that:

“Fiji’s technique is too aggressive. With countries such as Australia and New Zealand, we still have to kiss their feet or they would demand separate agreements which could have a million dollar cost. Why do the countries aggressively approach New Zealand and Australia? What if we just came and bowed to them so that we can be given a chance”<sup>68</sup>

Tonga’s accession to WTO however, could reduce market problems for agricultural farmers. An official from MLCI elaborated on the contribution of WTO to greater market access by stating that:

“Through [the] Most Favourable Nation (MFN) treatment, Tonga has access to all the country members of WTO’s markets – Tonga has access to the 152 markets of the WTO, whether it makes use of it or not”<sup>69</sup>

However, as proven by the ban of kava exports by the EU, WTO countries can still close off their markets to other WTO members by using quarantine barriers which may not be supported by sufficient evidence. Many agricultural exporters believe that when it comes to quarantine issues, the WTO can do little to improve trade situations for Tongan agricultural produce. Although the WTO offers avenues for countries to defend their cases by challenging or taking the country at fault to court, this measure may not be useful for small developing countries such as Tonga. With regards to the kava ban by EU, one agricultural exporter stated that:

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<sup>68</sup> Translated from Tongan

<sup>69</sup> Not translated from Tongan

“What did WTO do then and what has it done now? As far as I’m concerned, nothing! How does little Samoa, Tonga, Fiji or Vanuatu take on those countries to a court case. We’re told to take a court case, where’s the 10 million dollars to take court cases on things like that? Do we have just casual 10 million dollars lying around? No!”<sup>70</sup>

In view of these barriers and their significant effect on Tongan exports, there is an urgent need for Government to not only put in place the necessary facilities that would ensure Tongan exports’ compliance with quarantine standards of its trading partners, but it should also consider its negotiation techniques particularly on bilateral quarantine agreements and free trade agreements.

Moreover, these recommended assistances both reiterate the crucial role of Government in agricultural export development. Government intervention can result in greater inefficiencies because it fails to address fundamental market failures that restrict the growth of the agricultural export industry. The Development License Incentive is an example of Government seeking to promote private sector growth yet failing to address the fundamental impediments to their development. As a result, resources were misallocated and costs to Government were not recovered.

This chapter revealed that the views of agricultural exporters can be effective in highlighting market failures in the industry hence helping Government to effectively maximise efficiency in the economy. Improvements in communication and interaction between Government and agricultural exporters therefore can produce efficient public policies that would enhance agricultural development.

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<sup>70</sup> Not translated from Tongan

Another issue uncovered in this chapter is that Government cannot depend on its trade liberalisation reforms or its accession to WTO to independently improve its terms of trade or develop its agricultural sector. This is largely because the benefits of full trade liberalisation are in the hands of the industrial countries. However, for Tonga to maximise its comparative advantage at the current state of trade liberalisation, it is imperative that market failures of credit availability, risk management, information asymmetries, public goods such as quarantine facilities and market research are efficiently addressed.

## CHAPTER 7

### CONCLUSION

Economic development is defined as a “process which leads a country from a state of underdevelopment, characterized by low income and a poor quality of life, to one of higher living standards for a large majority of people” (Siggel, 2005, pg.1). Since the desired outcome of economic development is increased levels of welfare, public policies aimed at achieving optimal efficiency would be ideal because Pareto efficiency seeks to maximise the welfare of every individual. In view of this, Tonga’s accession to WTO and the alignment of its public policies to neoliberal values would be the best approach to the country’s economic recovery. However, this thesis revealed that even with greater liberalisation, economic growth may be minimal because liberalisation reforms may not address fundamental market failures which impede economic development.

This however does not erase the ideal benefits of efficiency and its significance to economic development and welfare improvements. Professor Harry Johnson<sup>71</sup> however indicates that the efficiency of public policy does not “arise from an autonomous dynamic of scientific progress” within a certain ideology but rather in “response to perceived social needs” (Toye, 1993, pg.44). As such, the efficiency of Tongan policies is not weighed by its conformity to neo-liberalism but on their responsiveness to the social needs of the general Tongan population.

This research project has revealed that maximising efficiency in agricultural export is particularly important for Tonga’s economic development. It not only has the capacity to foster long term economic growth for Tonga but it also has the calibre to address rural

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<sup>71</sup> An economist who specialised in monetary theory and was a central figure in development counter-revolution (Toye, 1993, pg.45).

poverty hence contribute to poverty alleviation in the country. Although Government is expecting its liberalisation reforms to bring about agricultural export growth and the imminent economic recovery it currently needs, the “free market concept rarely comes true” for small developing countries such as Tonga. This is largely because its markets of land, labour, capital, entrepreneurship and commodity markets are characterized by significant market failures (Ghatak, 2003, pg.21). Maximising efficiency in Tonga’s agricultural export development therefore requires policies that are primarily designed to correct these market distortions.

The first step however to correcting market failures is to identify the fundamental market failures which impede agricultural export development. This research project revealed that both Government and agricultural exporters cannot independently determine nor address the market failures that impede agricultural export development. Agricultural exporters for instance, desired the revival of the Development License Incentive with the belief that this assistance would remove the impediments to agricultural export development. However, as indicated by Government, the re-establishment of this incentive would not only be ineffective in developing the agricultural export industry but it would also increase inefficient allocations of scarce resources that could have been otherwise used to maximise improvements in welfare for Tongans.

Similarly, Government implemented its liberalisation reforms with the idea that it would maximise efficiency as advocated by supporters of neo-liberalism. However, through the views of agricultural exporters, this research revealed that these reforms may not be as successful as expected because they do not address fundamental market failures in credit accessibility and risk management. In view of these inefficient approaches to efficiency, this research project suggests that the first step to maximising efficiency in Tonga’s agricultural

export industry is for Government and agricultural exporters to work together in determining the actual market failure situations which impede the development of the industry. As such, efficiency is achieved through the effective combination of market and Government. These sectors should therefore understand that “despite their diametrically opposite roles in resource allocations” they are “inseparably interdependent” (Hayami & Godo, 2005, pg.243).

Moreover, although agricultural exporters play a fundamental role in the development of the agricultural export industry, maximising efficiency requires Government intervention. Although Government desires agricultural exporters to understand Government’s limited resources and “increase their self-sufficiency”, this research revealed that the capacity of these exporters to be self-sufficient is restrained by market failures particularly in credit accessibility and risk management. Since Government’s “proper role” is to correct these market distortions, the self sufficiency of agricultural exporters is dependent on the effective implementation of these Government roles.

However, Government efforts to maximise efficiency is met by significant impediments that Tonga may not be able to resolve. This thesis revealed that the Tongan Government acknowledges its roles in promoting agricultural export but it simply does not have the capacity to effectively carry out these roles. Moreover, Government’s limited capacity was further strained by the effects of the 2005 public service salary increase and the 2006 civil unrest. Consequently, Government largely relies on foreign aid to facilitate the expensive task of correcting market distortions in the economy. This however can also place limitations on Government efforts to maximise efficiency. In effect, this thesis revealed that because corrections are costless, and that Government is neither a “selfless guardian” nor “omniscient”, it is bound to fail in bringing about optimal efficiency in the economy and in the agricultural export industry.

In view of Government failure to achieve efficiency, the Tongan Government has taken the approach of liberalising the economy so as to enable the market system to better achieve efficiency. However, this thesis revealed that this too may also fail to maximise efficiency in Tonga's agricultural export industry. This largely stems from the fact that world trade is dominated by industrial countries and that WTO does not enforce these countries to comply with the rules of full trade liberalisation. As such, small developing countries such as Tonga are prevented from reaping the full benefits of their comparative advantage in agriculture.

In view of these impediments, efficiency may only exist as an ideal goal that may be unattainable particularly by a small developing island country such as Tonga. However, there is still a need for Government and agricultural exporters to make every effort to remove impediments to agricultural export development so as to bring about the fundamental contributions of agricultural growth to Tonga's long term development and poverty alleviation. As such, it is therefore necessary to continue to set efficiency as a goal to direct Tongan public policy hence promote increases in levels of welfare for the general Tongan population. The process of economic development for Tonga would therefore be a "quest for efficiency".



## Appendix 1: Quantitative Survey Questionnaire

*Kataki 'o 'omai pe 'a e tali 'oku tonu taha ki HO'O pisinisi. Kataki 'o fakatonuki (tick) 'a e tali 'oku tonu.*

### **Question 1:**

Ko e ha 'a e fa'ahinga ngoue 'oku ke hu atu ki muli?

Ko e ta'u eni 'e fiha 'a e lele 'a ho'o pisinisi? \_\_\_\_\_

### **Question 2:**

2a) Kataki 'o fakaha mai pe koeha e lahi hono uesia ho'o pisinisi tupunga mei hono fakangata 'o e lasieni fakalalakaka. Kataki 'o fakaha mai ho'o tali 'o ngaue'aki 'a e sikeili 'o e 1 ki he 5: 1= 'ikai uesia – 5= uesia lahi.

1	2	3	4	5
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2b) 'I he sikeili 'o e 1 ki he 5, kataki 'o fakaha mai pe koeha 'a e palopalema lahi taha 'oku fekuki mo ho'o pisinisi tupunga mei hono fakangata 'o e laiseni fakalalakaka?

(1='ikai ko ha palopalema → 5= palopalema lahi 'aupito)

	1	2	3	4	5
1. Fe'au'auhi mo e kau ngoue kehe/pisinisi ngoue muli					
2. Tauhi pe fakalahi e kau ngaue (workers)					
3. Fakalelei'i taukei ngaue (management skills)					
4. Fakalahi 'o e fa'ahigna koloa/ngoue kehekehe 'a e pisinisi (product diversification)					
5. Fakalahi 'o e pisinisi (business expansion)					
6. Si'isi'i e pa'anga ke fakalele'aki e pisinisi					
7. Ngaahi palopalema felave'i mo e 'ataakai (environmental considerations)					
8. Si'isi'i 'o e ngaahi maketi ke hu atu ki ai e koloa/ngoue					
9. Ko e mole atu e pisinisi ki he kakai kehe					
10. Ko e malava ke kei hokohoko atu e lele 'a e pisinisi					

Koeha ha toe palopalema makehe 'oku ne fakafe'atungia'i e tupu ho'o pisinisi tupunga mei hono fakangata 'o e laiseni fakalalakaka?

**Question 3:**

3a) Kataki 'o fakaha mai ange 'i he sikeili (scale) 'o e 1 ki he 5 pe 'e 'aonga fefe 'a e memipa 'a Tonga 'i he WTO ki he fakalalakaka 'a ho'o pisinisi (1 = 'ikai 'aonga → 5='aonga lahi 'aupito)

1	2	3	4	5
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3b) Kataki 'o fakaha mai pe ko fe 'i he ongo policy 'oku ke pehee 'e tokoni lahi taha ki he langa fakalalakaka 'a ho'o pisinisi

- Ngaahi lao ke malu'i mo tokoni'i e pisinisi Tonga (protectionism) pea mo e laiseni fakalalakaka
- Faka'ataa 'o e maketi (liberalisation) mo e fetongi 'o e laiseni fakalalakaka 'aki 'a hono tukupifo e totongi tukupifo koloa (tariffs)

3c) Koeha 'a e fa'ahinga tokoni mei he Pule'anga 'oku ke pehee 'e tokoni lahi taha ki he langa fakalalakaka 'a ho'o pisinisi? Kataki 'o ngaue'aki e sikeili (scale) 'o e 1 ki he 5 ke fakaha mai 'aki 'a e tali 'oku tonu taha ki ho'o pisinisi. (1= 'ikai 'aonga → 5 = 'aonga lahi 'aupito)

Malu'i 'o e ngaahi pisinisi Tonga mei he ngaahi nunu'a 'o e fe'au'auhi mo e ngaahi pisinisi lalahi mei muli	1	2	3	4	5
Fakahoko ha ngaahi ako ke fakalahi e taukei e kau ngaue (capacity building trainings)					
Tokoni ki hono kumi ha ngaahi maketi 'i muli ke hu ki ai e ngaahi koloa (market research)					
Foaki 'o e ngaahi tokoni (subsidies) ki he ngaahi pisinisi Tonga					
'Ikai fiema'u ha tokoni mei he pule'anga					

Koeha ha fa'ahinga founa makehe 'e lava ke tokoni atu ai e Pule'anga ki hono langa fakalalakaka ho'o pisinisi?

THANK YOU FOR YOUR PARTICIPATION!!!

## Appendix 2: Qualitative Interview Questions

### i) Questions for Farmers:

1. Ko e ha ho’o vakai ki hono to’o ‘o e laiseni fakalalakalaka mo e tokoni ‘oku totonu ke fakahoko ‘e he pule’anga ke langa hake ai e tu’unga ‘o e ngoue fakakomesiale ‘i Tonga?
2. ‘Oku fefe ho’o fakafehoanaki ‘a e totongi ‘oku to’o mei he ngaahi koloa hu mai ki ho pisinisi koe’uhi ko e laiseni fakalalakalaka, pea mo e ngaahi totongi kehe ‘oku hilifaki ki he koloa hu atu (exports)?
3. Koeha ho ‘o vakai ki he ngaahi pisinisi ngoue fakakomesiale na’a nau ma’u laiseni fakalalakalaka ka kuo iku ‘o mate ‘enau ngaahi pisinisi?
4. Ko e ha ho’o lau ki he ngaahi lao fakakolonitini pe koe ‘oku ‘iloa ko e Sanitary & Phyto-sanitary standards?
5. Ko e ha ho’o vakai ki he faka’ataa ‘o e ngaahi pisinisi ke hu mai ki ai e kau muli? ‘Oku ke pehee ‘e tokoni eni ke faka’ai’ai e fe’au’auhi e ngaahi pisinisi pe ‘e iku kovi ia ki he ngaahi pisinisi Tonga?
6. ‘Oku fiema’u nai ha ngaahi lao ke malu’i ‘aki e kau ngoue Tonga?
7. ‘I hono to’o ko eni ‘o e laiseni fakalalakalaka koeha ha’o vakai ki ha fa’ahinga tokoni makehe ‘oku totonu ke ne fetongi e laiseni ko eni?
8. Ko e ha e fatongia totonu ‘o e pule’anga ‘i he langa hake ‘o e ngoue fakakomesiale?
9. Na’a ke kau atu ki he ngaahi ako ne fakahoko ‘i he teu hu ko eni ‘a Tonga ki he WTO?
10. Koeha ha ngaahi palopalema ‘oku ke fetaulaki mo ia ‘i he tafa’aki ‘o e ngoue (production)?

### ii) Questions for Senior Government Officials:

- I. Constraints to the Development of the Local Agricultural Export Industry:

1. From the Ministry's view point, what do you consider to be the main barriers/constraints to the development of agricultural exports from Tonga?
2. How is the Ministry working towards reducing these barriers/constraints?
3. In view of the promises for greater market access and fair trade by WTO, do you think Tonga's accession to WTO will help reduce/eliminate these constraints/barriers? Please explain.

II. Subsidies:

1. Currently, what are the direct/indirect subsidies offered by Government to local agricultural exporters?
2. The accession to WTO has required the repeal of the Development License Incentive. From your point of view, do you think that the Development License failed as an incentive to promote agricultural exports in Tonga? Do you think the new zero-rate system will provide the necessary assistance needed by local agricultural exporters? Please explain.
3. Do you think the repeal of the Development License proves that it is not effective for Government to give subsidies to local agricultural farmers? Please explain.
4. Do you think Government should intervene in the development of the local agricultural export industry? If Yes, please indicate what kind of government intervention would best assist local agricultural exporters. If No, please explain why.

## Appendix 3: Survey Information Sheet

**KO E SAVEA KI HE LANGA FAKALAKALAKA 'O ENGAahi PISINISI TONGA  
NUKU'ALOFA, TONGA 2008  
MALO 'AUPITO 'A HO'O KAU MAI KI HE SAVEA NI**

HOW LIBERALIZED SHOULD TONGA'S LOCAL AGRICULTURAL EXPORT  
INDUSTRY BE?

HOW EFFECTIVE IS THE REPLACEMENT OF THE DEVELOPMENT LICENSE  
SCHEME BY LOWER TARIFF RATES ON SECURING THE DEVELOPMENT OF  
LOCAL AGRICULTURAL EXPORTERS?

Ko e ngoue fakakomesiale 'a e tefito'i ma'u'anga pa'anga 'a e Tonga pea 'oku tefito foki mei ai 'a e tu'unga faka'ekonomika 'o e fonua. Tu'unga 'i he fu'u mahu'inga ko eni 'o e ngoue fakakomesiale, ne ngaue'aki leva 'e he Pule'anga 'a e ngaahi lao ke malu'i mo tokoni'i e kau ngoue fakakomesiale Tonga koe'uhi ke tupulaki e fakalalakaka e ngaahi pisinisi ko eni. Ko e polokalama tokoni lahi taha 'a e pule'anga 'i he taimi ko eni ne 'iloa ia ko e Laiseni Fakalalakaka. Na'e tokoni e polokalama ko eni 'i hano faka'ata ke hu ta'e tute mai 'ae ngaahi naunau ngoue ne fiema'u ke langa hake 'aki e ngaahi ngoue fakakomesiale 'a kinautolu ne ma'u laiseni fakalalakaka. Ka 'i Siulai 2007, ne fakangata leva 'a e tokoni ko eni ka e fakasi'isi'i pe 'a e totongi tukuhau (tariff) 'o e ngaahi koloa (capital equipment) 'oku hu mai ki ha fa'ahinga pisinisi. Na'e makatu'unga e liliu ko eni 'i he kau atu 'a Tonga ko e memipa 'o e World Trade Organisation (WTO).

'I he kau atu 'a Tonga ko eni ki he WTO, kuo kamata leva hono to'o e ngaahi tokoni mo e ngaahi malu'i ne faoki ki he kau ngoue Tonga pea to'o pea mo e ngaahi fakangatangata ki he ngaahi koloa hu mai mei muli (imports) pea pehee ki h ngaahi me'a ne'a ne fakafe'atungia'i e hu mai e kakai muli 'oku nau fei fakalele pisinisi 'i Tongani (foreign investment). Neongo 'oku lau 'e he kau 'ekonomika (economists) ko e liliu ko eni 'e toe faka'ai'ai ange ai e tupulaki faka'ekonomika e ngaahi pisinisi pea mo e fonua, ka 'oku te'eki ai ke mahino mai pe 'oku totonu ke kei foaki ai pe ha tokoni ke malu'i mo langa'i hake e ngaahi pisinisi ngoue fakakomesiale Togn koe'uhi ka nau lava 'o tupu pea mo fe'au'auhi lelei mo e kau ngoue muli.

Tu'unga 'i he mahu'inga 'o e ngoue ki he mo'ui e kakai 'o Tonga, 'oku fu'u fiema'u 'aupito ke toe fai ha tokanga makehe ki he palopalema (issue) ko eni koe'uhi ke fakasi'isi'i pe ta'ofi e ngaahi nunu'a kovi 'a hono fakangata 'o ngaahi malu'i ne foaki 'e he pule'anga ki he kau ngoue Tonga. Ko e savea ko eni ko e kongia ia 'o e fekumi ke fakakakato'aki 'eku pepa ki hoku Master of Public Policy mei he 'Univesiti Massey 'i 'Aokalani Nu'usila pea 'oku ou faka'amu 'e tokoni lahi e fekumi ni ki hono langa hake e ngaahi pisinisi Tonga tautautefito ki he ngaahi pisinisi ngoue fakakomesiale 'a e kakai Tonga.

'Oku ou hounga'ia 'aupito 'i ho fie kau mai ki he savea ko eni. Kataki 'o fakatokanga'i ange ko e ngaahi tali t eke 'omai 'e faka'onga'i pe ia ki he'eku pepa ako pe pea 'e 'ikai ke tuku atu 'a e ngaahi fakamatal ko ia ki tu'a (confidential). 'Oku ke tau'ataina pe ke ke fili k eke kau

mai ki he savea ko eni pea 'oku ke tau'ataina foki ke 'oua te ke tali kakato e ngaahi fehu'i 'oku 'oatu. Ko ho'o fakakakato mo ho'o fakafoki mai 'a e pepa savea ni 'oku ne fakaha mai ai ho'o fie kau mai ki he fekumi ni.

'O kapau 'e 'i ai ha'o fehu'i pe tala'a fekau'aki mo e savea ni, kataki 'o fetu'utaki mai 'i ha fa'ahinga taimi pe ki he fika telefoni/email 'oku 'oatu 'i lalo. Te ke lava foki 'o fetu'utaki ki he'eku palofesa (supervising professor), Dr. Grant Duncan, 'o kapau 'oku ke faka'amu ke fakapapau'i ha fa'ahinga mea' fekau'aki mo e savea ni.

Malo 'aupito ho'o kau mai ki he savea ko eni.

Faka'apa'apa atu,

Alisi Kautoke

Nuku'alofa, Tonga

Tel: (676) 23180/Fax: (676) 24890

Dr. Grant Duncan

Coordinator, Public Policy Programme,

Massey University, Auckland

Tel: 649 414 0800 / Fax: 649 441 8162

Email: l.g.duncan@massey.ac.nz

## Appendix 4: Participant Consent Form

**KO E SAVEA KI HE LANGA FAKALAKALAKA 'O ENGAHI PISINISI TONGA  
NUKU'ALOFI, TONGA 2008  
MALO 'AUPITO 'A HO'O KAU MAI KI HE SAVEA NI**

### PARTICIPANT CONSENT FORM

Kuo u 'osi lau 'a e pepa fakamatala ki he savea ni (Information Sheet) pea kuo 'osi fakamatala'i mai kiate au 'a e fakaikiiki 'o e ako ni. Kuo 'osi fakafiemalie 'a e ngaahi tali kuo 'omai ki he'eku ngaahi fehu'i, pea 'oku ou mahino'i foki 'oku 'i ai 'eku totonu ke u 'eke fehu'i 'i ha fa'ahinga taimi pe lolotonga 'a e savea ni.

'Oku ou loto/'ikai loto ki hono hiki tepi 'o e savea ni (interview)

'Oku ou loto lelei ke u kau ki he savea ni 'o fakatatau ki he ngaahi makatu'unga 'oku 'omai 'i he tohi fakamatala ki he savea ni (information sheet).

Fakamo'oni hingoa: \_\_\_\_\_ 'Aho: \_\_\_\_\_

Hingoa kakato (Mata'itohi lalahi): \_\_\_\_\_

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## Abbreviations

<b>SDP8</b>	National Strategic Plan 2006/07 – 2008/2009
<b>MLCI</b>	Ministry of Labour, Commerce and Industries
<b>MAFF</b>	Ministry of Agriculture, Food and Forestry
<b>GDP</b>	Gross Domestic Product
<b>GNI</b>	Gross National Income
<b>IMF</b>	International Monetary Fund
<b>ADB</b>	Asian Development Bank
<b>WTO</b>	World Trade Organisation
<b>PAH</b>	Participatory Assessment of Hardship Study
<b>HIES</b>	Household Income and Expenditure Survey
<b>HDI</b>	Human Development Index
<b>UNDP</b>	United Nations Development Programme