



## TÍTULO

EVALUATION OF THE FUNCTION OF THE CONVENTION ON  
INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD  
FAUNA AND FLORA (CITES) AUTHORITIES IN TONGA  
FISHERIES CASE STUDY

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| Tutores         | <b>Esta edición electrónica ha sido realizada en 2023</b> |
| Instituciones   | Sofie H. Flensburg ; 'Elina K. Bloomfield                 |
| Curso           | Universidad Internacional de Andalucía                    |
| ©               | <i>Máster CITES (2021-2022)</i>                           |
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| Fecha documento | De esta edición: Universidad Internacional de Andalucía   |
|                 | 2023  |



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**UNIA MASTER'S DEGREE IN MANAGEMENT AND CONSERVATION OF SPECIES IN TRADE:**

**THE INTERNATIONAL FRAMEWORK (14<sup>th</sup> edition)**

**2022 – 2023**

**Evaluation of the Function of the Convention on International Trade  
in Endangered Species of Wild Fauna and Flora (CITES) Authorities  
in Tonga: Fisheries Case Study.**

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(Source: CITE Website, 2023)

**This Thesis is submitted in Partial Fulfilment of the requirements for the Master's degree of  
Management and Conservation of Species in Trade: The International Framework (14<sup>th</sup> Edition).**

**UNIVERSIDAD INTERNACIONAL DE ANDALUCIA**

Sede Antonio Machado, Baeza (Jaén) – Spain

1<sup>st</sup> April 2023

## Approval Page

## ACKNOWLEDGEMENT

God is within her; she will not fail (Psalm 46:5) – my favourite bible verse and a motivational line for this journey.

I want to acknowledge the support and trust of my supervisors, Ms Sofie H. Flensburg and Dr Elina K. Bloomfield, for their expert guidance throughout this thesis. I appreciate your time whenever I doubt my research; "Thank You" is an understatement.

I also acknowledge the Government of Tonga for permitting me to conduct this research in Tonga. To the Chief Executive Officer (CEO) for the Ministry of Fisheries, Dr Tu'ikolongahau Halafihi, I am grateful for your support in allowing me to conduct my research at the Ministry and for being part of the study. To my work mentor and supervisor, Mr Poasi Ngaluafe, for your expertise and support in pursuing this Master's course and its significance to the development of the fisheries sector through the management and conservation of species in trade.

To all the expert personnel from the Ministry of Fisheries, aquarium exporters, the Department of Environment, the Customs Department, Vava'u Environmental Protection Association (VEPA) and research scholars who were too kind to sacrifice time and participate in this study – Thank You.

I also want to extend my gratitude and appreciation to the CITES Secretariat in Geneva, Switzerland, for your financial support that allowed me to attend the on-campus period for the 14th edition cohort of this specialised Master's course held in Baeza, Spain. The experience was extraordinary, and I left with beautiful memories.

I would also like to acknowledge Dr Margarita África Clemente Muñoz, Dr Mercedes Nunez, and the other lecturers at the International University of Andalusia (UNIA). Thank you for coordinating such a vast, diverse group of students and lecturers and their ability to connect outstandingly with all students attending the programme.

Finally, my sincere thanks go out to “my village” – my family, friends, colleagues, and loved ones for their consistent prayers, support, and encouragement throughout my research and writing of this thesis. God has entrusted me with the best support system – “Malo lahi e Tokoni mo e Poupou.” It was a challenging journey, but I happily took all of it to God, who always came through for me.

## ABSTRACT

The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) is important but knowing its existence and/or its role in endangered species conservation is still in the infancy of recent Parties in Oceania, including Tonga. This research used a fisheries case study to evaluate why Tonga failed to comply with and implement CITES.

The study mainly used questionnaire surveys and interviewed expert personnel participants to collect and analyse data. The findings were supported by relevant literature articles available. With the Ministry of Fisheries as a national Management Authority and Scientific Authority for Tonga, the data collected was used to test the hypothesis of why Tonga failed to comply with and implement CITES through the Ministry of Fisheries. 20 participants in this survey, with 92% claiming to have CITES-based knowledge existed before Tonga became a Party to the Convention. The level of CITES-based knowledge is rated as moderate level. Based on the survey results, the level of CITES implementation in the fisheries sector is highly influenced by this knowledge because, primarily, the participants cannot link the knowledge to their work.

The main findings include 60% of the participants claimed that having inadequate CITES domestic legislation leads to failure to comply with and implement CITES in Tonga. Furthermore, by evaluating the roles and functions of the Ministry of Fisheries as a MA and SA, it is found that the current implementation schemes overlap its functions hence influencing the CITES implementation. Also, a lack of capacity building and inefficient coordination and cooperation amongst CITES Authorities at the national level impact the implementation.

The study recommends consistent follow-up to gazette Tonga's new CITES regulation; hence, any revision must ensure that the implementing agencies understand its context. This action would be the primary driver to initiate effective and practical implementation for CITES in Tonga and avoid being subject to compliance measures for lack of adequate legislation. Also, producing a CITES management plan to mainstream the implementation schemes linking the mandates of each CITES MA and SA in Tonga to allow effective and consistent monitoring of CITES at the national level. Finally, capacity building would strengthen CITES knowledge and encourage the implementing agencies to engage in more CITES implementation activities.

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## DEFINITION OF TERMS

| Terms                                    | Definition  |
|--|---|
| <b>Appendices:</b>                       | means the Appendix I, II or III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as amended from time to time.   |
| <b>CITES or “the Convention”:</b>        | Convention on International Trade in Endangered Species of Wild Fauna and Flora. [CITES is an international convention that spelt out specifically the roles and responsibility of each stakeholder in the management and conservation of wildlife aimed at preventing extinction or exploitation through trade of species].    |
| <b>Conference of the Parties or CoP:</b> | means the Conference of the Parties to the Convention as referred to in Article XI of the Convention;   |
| <b>International trade:</b>              | refers to export, re-export, import covered by the customs regulation and introduction from the sea (CITES, 1973).  |
| <b>Legal Acquisition finding:</b>        | means a finding by the Management Authority of the State of export determining whether the specimens were acquired consistent with national laws. The applicant is responsible for providing sufficient information to show that specimen was legally acquired (CITES, 2019).   |
| <b>Management Authority:</b>             | means a national management authority designated in accordance with Article IX (CITES, 2019).   |
| <b>Non-Detrimental Finding:</b>          | means a finding by the Scientific Authority advising that a proposed export or introduction from the sea of Schedule I or II specimens will not be detrimental to the survival of the species and that a proposed import of a Schedule I specimen is not for purposes that would be detrimental to the survival of the species. |

|                               |  |
|-------------------------------|--|
| <b>Party:</b>                 | refers to a State for which the present Convention has entered into force (CITES, 1973).   |
| <b>Permit or Certificate:</b> | means the official document used to authorise import, export, re-export, or introduction from the sea, of specimens of species listed in any of the Schedules in these Regulations. It shall conform to the requirements of the Convention and Resolutions of the Conference of the Parties or otherwise shall be considered invalid;  |
| <b>Quota:</b>                 | means the prescribed number or quality of specimens that can be harvested, exported, or otherwise used over a specific period.   |
| <b>Range state:</b>           | refers to a species that can be found in Tonga's territory.  |
| <b>Species:</b>               | means any species, subspecies, or geographical separate population thereof; (CITES, 1973).   |
| <b>Scientific Authority:</b>  | means to a national scientific authority designated in accordance with Article IX (CITES, 1997).   |
| <b>Specimens:</b>             | means i) any animal or plant, whether alive or dead; ii) in the case of an animal – any readily recognizable part or derivative thereof; for Appendices I and II species; for Appendix III species, any readily recognizable part or derivative thereof specified in Appendix III concerning the species; and iii) in the case of a plant: Appendix I species, any readily recognizable part or derivative thereof; and for Appendices II and III species, any readily recognizable part or derivative thereof specified in Appendices II and III concerning the species (CITES, 1973).. |
| <b>Talanoa:</b>               | Tongan word used for establishing conversation between individuals either formally or informally. It is one of the methods used in this study for interviewing the participants.   |

## LIST OF ACRONYMS

| <b>Abbreviation</b> | <b>Definition</b>   |
|---------------------|---|
| <b>CEO</b>          | <b>Chief Executive Officer</b>  |
| <b>CoP</b>          | <b>Conference of the Parties</b>  |
| <b>CITES</b>        | <b>Convention on International Trade in Endangered Species of Wild Fauna and Flora</b>                      |
| <b>EEZ</b>          | <b>Economic Exclusive Zone</b>  |
| <b>FAO</b>          | <b>Fisheries Agricultural Organization</b>  |
| <b>GCC</b>          | <b>Gulf Cooperation Council</b>   |
| <b>GDP</b>          | <b>Gross Domestic Product</b>   |
| <b>IUU</b>          | <b>Illegal, Unreported, and Unregulated</b>   |
| <b>LAF</b>          | <b>Legal Acquisition Finding</b>  |
| <b>MA</b>           | <b>Management Authority</b>   |
| <b>MAFF</b>         | <b>Ministry of Agricultural, Food and Forestry</b>  |
| <b>MEIDECCC</b>     | <b>Ministry of Energy, Information, Disaster Management, Environment, Climate Change and Communications</b> |
| <b>NDF</b>          | <b>Non-Detriment Finding</b>  |
| <b>NGO</b>          | <b>Non-Governmental Organization</b>  |
| <b>NLP</b>          | <b>National Legislation Project</b>   |
| <b>PICT</b>         | <b>Pacific Island Countries Territory</b>   |
| <b>SA</b>           | <b>Scientific Authority</b>   |
| <b>VEPA</b>         | <b>Vava'u Environmental Protection Association</b>  |

# CHAPTER 1

## INTRODUCTION

The reason why people refer to the planet as "Mother Earth" is because it provides for us through its interdependent ecosystems of plants and animals. This sustains our way of life, economy, safety, and the overall sustainability of our existence. Unfortunately, the increasing focus on financial gain in our societies has increased our tendency towards self-absorption, lack of consideration and awareness, which has led to the endangerment of many species. The advancement of modern transportation and communication technology has also led to a rise in the trading of millions of plant and animal species each year, which has further exacerbated this issue.

Their diverse trading ranges from live animals and plants to many wildlife products that harm them, such as food products, exotic leather, wild flora, and fauna. The trade activities have exponentially increased the level of exploitation of some plants and animals and their trade, together with other related factors, such as habitat loss, which can lead to population depletion and even being endangered or becoming extinct.

With the realization that the earth's tightly knitted and fragile systems are the critical cradle for human beings, we should save ourselves by saving Mother Earth. The conservation perspective has attracted international attention to act before it is too late, bringing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to the international table. The problem arises when the exploitation level can heavily deplete wildlife populations and bring some species close to extinction, implying that the rate of exploitation exceeds the rate of rejuvenation and replacement. Therefore, it is everyone's responsibility, and because trading of wild flora and fauna crosses borders of countries, regulating it requires global collaboration to safeguard certain species from being over-exploited (Dickson, 2000).

### **1.1 What is The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)?**

Also known as the Washington Convention, it was drafted, and signed in Washington, D.C., the United States of America, on March 03, 1973, and entered into force on July 01, 1975 (CITES, 2023a). With the obvious and critical objectives of the CITES, almost all countries today are Parties to this international legally binding agreement. However, a few Pacific Island States are not Parties to the Convention.

As with all international conventions, membership in CITES is voluntary, and Parties that sign the Convention agree to implement and enforce the Convention as written. Parties acceding to the Convention may make specific reservations, as per Article XXIII (CITES, 1973a). The Convention has three appendices of listed species that reflect the level of protection required for the species. There are about 6600 species of animals and 34300 species of plants included in the appendices (CITES, 2023a). Additions and removals of species from these appendices (as well as Resolutions and Decisions that address the mechanics of implementation, interpretation, and compliance issues) are subject to discussion every three years at the Conference of the Parties (CoP). If Parties cannot agree by consensus, they will move to a vote where each Party has one vote and can propose changes to species listing (Reeve, 2004).

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement among countries, a legal mechanism for regulating trade in safeguarding certain species from over-exploitation and ensuring that international trade in specimens of wild animals and plants does not threaten the survival of the species, thus continue to perform their roles within the ecosystems (CITES, 2023b).

The 184 Parties to the Convention (CITES, 2023c) have strenuously moved to promote CITES through their officially designated national Management Authorities (MA) and Scientific Authorities (SA) by monitoring global and international trade in accordance with the Convention. The CITES MA has the key role to issue a permit verifying the legality and sustainability of an international movement of animals and plants listed under the Appendices of the Convention. According to Art. IX (CITES, 1973c) of the Convention, the Parties shall designate the SA to assess species potentially threatened by international trade within the Parties and address any physical issues (like MA). The main roles and functions of the SA are set out in Resolution Conference 10.3 (CITES, 1997) and in the model law.

### **1.1.1 Aims of CITES**

CITES aims to ensure the international trade in wild animals and plants is legal, sustainable, and traceable and does not threaten the species' survival in the wild (CITES, 2023b). Additionally, it reflects the economic and ecological dimensions of sustainable development and contributes to achieving Sustainable Development Goals. CITES regulates international trade in specimens of species of wild fauna and flora based on a



system of permits and certificates issued under certain conditions and with exemptions. It covers export, re-export, import and landing from the high seas of live and dead animals and plants and their parts and derivatives (CITES, 2023a).

### **1.1.2 CITES Framework**

CITES regulates international trade in wild animals, plants and their derivatives listed in the three Appendices of the Convention. The three Appendices operate to regulate commercial trade in species which are endangered or threatened with extinction to varying degrees. The species listing in specific Appendix of the Convention depends on the conservation status of the species and is decided by the CoP. The Convention regulates and controls this trade through the domestic measures set by each Party, including the issuing of permits for the "specimens or species" listed in the appendices.

The Appendix I of CITES (CITES, 1973d) includes all species threatened with extinction which are or may be affected by trade. The trade in specimens must be subject to stringent regulations not further to endanger their survival and only authorized in exceptional circumstances. In this case, the trade could permit only for non-commercial purposes, for specimens bred in captivity/artificially propagated or if specimens are Pre-Convention.

Appendix II includes all species that may become threatened with extinction unless trade in specimens of such species is subject to strict regulation to avoid utilization incompatible with their survival. Also, trade in specimens of certain species referred to in subparagraph (a) (CITES, 1973e) are allowed but regulated and limited control.

Finally, Appendix III (CITES, 1973f) shall include all species that any Party identifies as subject to regulation within its jurisdiction to prevent or restrict exploitation and as needing the cooperation of other Parties in the control of trade.

Despite the well-tailored elaboration of the degrees of protection in the Convention texts, other factors are crucial to implementing CITES and maintaining the sustainability of a particular trade within the limit of the degree of protection mentioned.

## **1.2 Tonga and CITES**

Tonga became the 183<sup>rd</sup> Party to CITES by acceding to it on October 20, 2016 (CITES, 2023c). There are 445 species included in CITES Appendix I and Appendix II from aquatic and terrestrial environments for which Tonga is a range state. There are seven species from the terrestrial, two species listed in Appendix I and five species under

Appendix II. On the other hand, from the marine environment, five Appendix I CITES-listed species and 433 species are in Appendix II (UNEP-WCMC, 2023). However, Tonga as a Party to the Convention must ensure to comply in regulating trade that involves all the 40,920 species included in the Appendices (CITES, 2023a). Additionally, CITES generally regulates the international trade of few marine fish species. However, more marine species have been included with about one hundred additional species added by the 19th meeting of the Conference of Parties held in Panama in November 2022; these new listings entered into force on 23 February 2023.

### **1.2.1 Tonga's domestic legislation for CITES.**

As an Oceania Party to CITES, Tonga must ensure adequate national legislation to fully implement and enforce all aspects of the Convention that leads to adequate wildlife trade controls (CITES, 1992). No CITES-specific legislation has existed in Tonga since it became a party to the Convention, but a few CITES-related pieces of legislation and regulations exist. Such relevant provisions include the *Fisheries Management Act 2002*, *Fisheries Management (Conservation) Regulations 2008*, *Fisheries Management (Processing & Export) regulations 2008*, *Environment Management Act 2010*, *Bird Preservation Act 2002*, *Forest Act 1961*, *Forest Produce Regulations 1979*, *Plant Quarantine Act 1982* and finally is the *Customs and Excise Management Act 2007*.

Tonga's legislation is currently placed in Category 3 of the CITES National Legislation Project, that gives the CITES Secretariat a mandate to assess the legislation against four minimum criteria. Legislation placed in Category 3 is generally considered not to meet any of these four criteria. However, the emission of Tonga's new CITES legislation under the *Endangered and Protected Species Regulations 2021*, which will be elaborated more in Chapter 5 of this paper, is expected to address the CITES minimum requirements and the final content of the regulation should allow the legislative status of Tonga to be upgraded to Category 1.

### **1.2.2 National CITES authorities in Tonga.**

National CITES authorities in Tonga are government departments. The Department of Environment is the primary CITES Management authority, and the Ministry of Fisheries is also a CITES MA. The Department of Environment under the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC), the Ministry of Fisheries, and the Ministry of Agriculture,

Food & Forestry (MAFF) are designated as the national Scientific Authorities. The Department of Environment under the Ministry of MEIDECC, is responsible for the provision of an effective system in place to facilitate the conservation of biodiversity and sustainable use of the natural environment, while maintaining ecosystems services (MEIDECCC, 2020). Forestry Department under the MAFF focuses on sustainable management of biodiversity and environmental conservation, and to promote food security through strengthening fruit trees planting scheme (MAFF, 2021). Likewise with the Ministry of Fisheries, which serves to sustainably managed fisheries resources, support the establishment of community based special management areas (SMA), and to foster sustainable and profitable commercial fisheries and aquaculture (Ministry of Fisheries, 2021). With each organization's mandate mentioned above, they shared a linking role of management and conservation leading to sustainable resources available for all Tongans. In this case, it does reflect relevant context indirectly to the CITES aims and provisions.

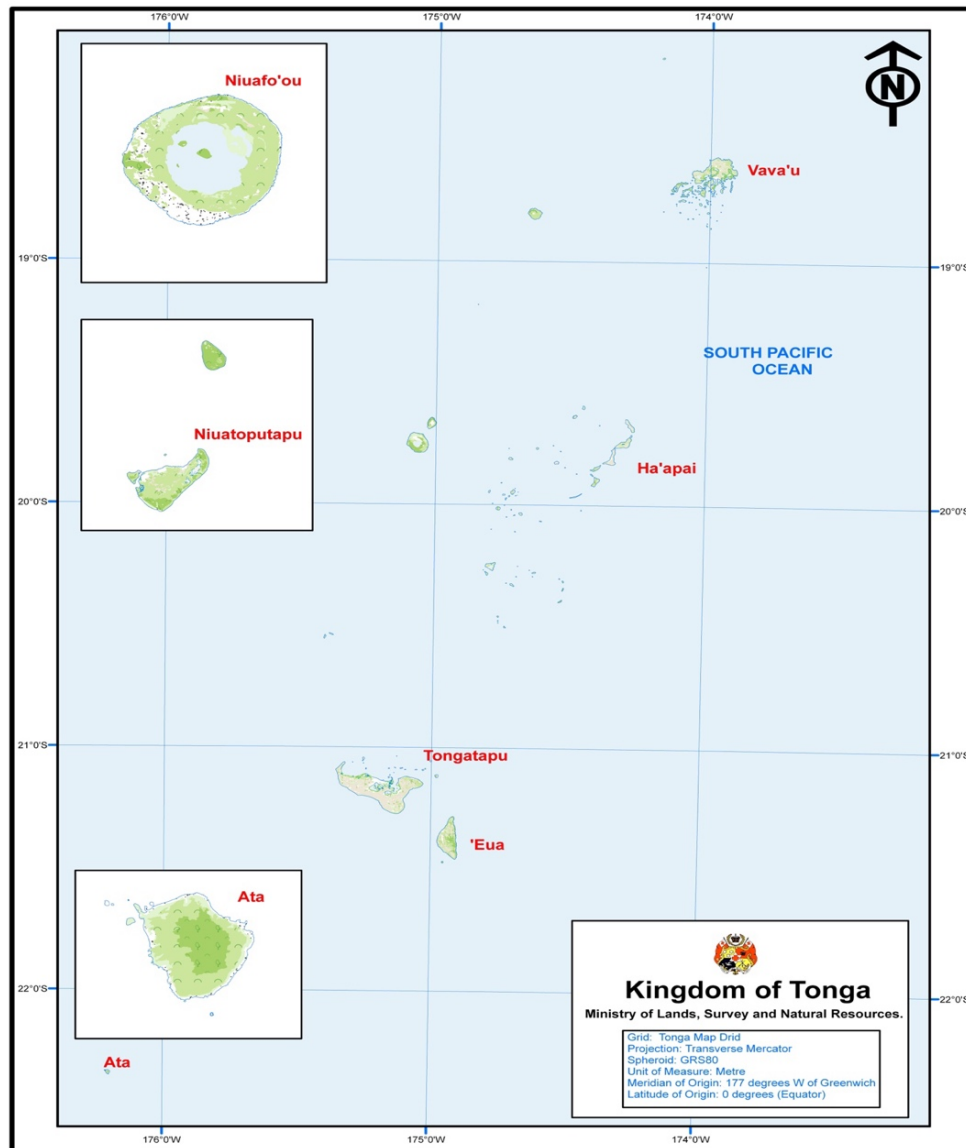
Following the mandates of the relevant CITES authorities in Tonga, the Department of Environment oversees the work related to terrestrial and marine species research; hence the Forestry Department sharing similar functions with the Ministry of Fisheries, however, focuses on terrestrial plants and animals. It is through these mandates that have enabled fisheries to carry out the functions of Management, and Scientific authorities focus on marine fauna and flora (Fa'otusia, 2021).

### **1.3 Context of the study: Tonga overview**

To help put Tonga into context and appreciate the importance of fisheries, here is a brief overview of Tonga and fisheries' contribution to the nation's economy. The Kingdom of Tonga (referred to as Tonga henceforth) consists of five scattered islands groups (Tongatapu, Ha'apai, Vava'u, Niufo'ou, Niuatoputapu and 'Eua) shown in *Figure 1.1*.

Tongatapu is the main islands where Government organizations and their relevant stakeholders involve in international trade activities located. The vast area of ocean surrounding each island is where most of the local Tongans utilize for their daily consumptions and livelihood. Also, the economy of Tonga highly depends on international trade of certain specimens derived from marine and terrestrial environment. This is because the territorial water of Tonga has a huge area of 363,500 km<sup>2</sup> (Zann, 1994), and its fisheries management system has an Exclusive Economic Zone (EEZ),

which is approximately 700,000 square kilometres, compared to only 748 square kilometres of Tonga's landmass (Zann, 1994), providing Tonga with a livelihood and income source.



*Figure 1.1: Map of Tonga*

*Source: Ministry of Lands, Survey and Natural Resources of Tonga, 2023*

### 1.3.1 Tonga as a small island economy

By introducing Tonga as an island economy in the South Pacific region having only a tiny population, but with fisheries sector as a unique resource for the country's economic development through foreign exchange earnings (Siufanga, 2009). In this case, some aspects of CITES are involving in trading of specimens that has economic incentive to

Tonga. The fisheries contribution to the national economy was estimated to a Gross Domestic Product (GDP) of T\$12.5 million (US\$6.7 million) of fishery products, which also represents 44.2% of all Tonga's export (Harkness, 2021).

Tonga has control over 700,000 square kilometres of ocean – 1000 times its land area (Bell, Fa'anunu and Koloa, 2005), and the vast marine ocean promises to bring wealth to the Kingdom. Fishing is one of the essential subsistence activities in Tonga. It has played a significant role in traditional food production, noting that three per cent of the Pacific EEZ area belongs to Tonga.

Moreover, since Tonga has an agrarian economy where most of its economically active population is engaged in agriculture and fisheries. For example, the total aquarium products exported in 2021 - 2022 was 132,116 pieces, valued at approximately TOP\$ 0.73 million. Live fish and coral specimens dominated the aquarium export in excess, and the primary market for exported aquarium products is the United States (Ministry of Fisheries, 2021). With this information, it is also essential to initiate traceability level and monitoring of illegal, unreported, and unregulated fishing in which will significantly affect the economy.

### **1.3.2 Tonga's economy and CITES.**

International trade is essential to most countries because resources are uneven, and only some countries can produce all the goods their consumer's demand. As a result, small island economies such as Tonga, with minimal resources, rely on international trade to fulfil local consumer demand (Siufanga, 2009). As a result, trade has recently re-emerged with renewed significance as an essential means of facilitating economic development.

In fact, Tonga's resource base is narrow, fragile, and prone to disruption by natural disasters (Kronen, 2004), subject to mainly overfishing observed in cases like harvesting for commercial trade in aquarium specimens. Tonga is, therefore, highly dependent on the international trading system, especially in agriculture, including fisheries. The relative size of Tonga's economy, as a small island, faces several significant challenges in achieving and retaining competitiveness in international markets for agricultural products, including fisheries. Moreover, Tonga is a small island, and geographic isolation presents challenges in achieving sufficient economies of scale to enable producers to compete in international markets. The prospects for economic growth in Tonga lie mainly in export of agricultural products and the growth of fisheries.

The Ministry of Fisheries has an entire core existence and mandates subject to the sustainable development, management, and utilization of marine resources. It independently carries out functions of management and conservation concerning the trade of marine species, specifically teatfish, corals, and *Tridacna* spp. and sometimes includes shark, turtle, and whale specimens. The trade is through various aspects, including commercial license exports, aquarium trade fishery, souvenirs, and other scientific purposes. However, Article II (CITES, 1973g) of the Convention explains the fundamental principle of CITES such that a trade should not be allowed by a particular Party for specimens of species included in Appendix I, II and III except in accordance with the provisions of the Convention.

#### **1.4 Problem Statement**

As previously mentioned, the CITES MA and SA in Tonga and their mandates reflect their roles and functions in implementing CITES in Tonga. The Department of Environment under MEIDECC is the central MA for Tonga; with an overall regulatory authority and are responsible for granting import and export permits and certificates and compiling trade data. Moreover, the Ministry of Fisheries supports the Department of Environment with similar roles and responsibilities.

On the other hand, SA must determine whether trade will be detrimental to the species' survival listed in the treaty's appendices and whether captive conditions are suitable for both terrestrial and aquatic live animals. The SA must also monitor export volumes, review permit applications, and advise on proposed changes to the treaty's appendices. Through these roles and responsibilities, the mandates of the Ministry of Fisheries and the Forestry Department are complementary.

With the current structure of the CITES national authorities in Tonga, the implementing agencies have joint roles and responsibilities in implementing CITES requirements. Nevertheless, the Department of Environment still leads as the primary Management Authority of CITES in Tonga. This research would have explored each CITES implementing agency and their current practice regarding CITES implementation in Tonga; however, currently the Ministry of Fisheries is familiar with some of the implementation work of the Convention including the submission of implementation and annual report, the issuances of the CITES permit upon export of specimens listed under the CITES Appendices and few other CITES relevant activities implemented. Therefore,

this research evaluates the implementation strategy at the CITES implementing agency level such as the designation of the Ministry of Fisheries as a MA and SA, as a case study reference for CITES implementation in Tonga.

The Science & Extension services division is responsible for the CITES implementation at the Ministry of Fisheries. They issue the permit and certificates for marine specimens listed in the Convention and are exported internationally for commercial and souvenir purposes. In this case, Fisheries Management plans have included guidelines for fish export licenses and terms and conditions for the harvest and export of marine species. For example, the Tonga Marine Aquarium Fishery Management and Development Plan 2020 – 2021 (Ministry of Fisheries, 2020) tailors guiding principles on management measures, authority's roles and responsibilities and the context relevant to the fisheries by-laws regarding the trade of marine specimens for aquarium fishery from Tonga the issuance of a marine aquarium export license is at the discretion and approval of the Chief Executive Officer (CEO). In terms of quota, the *Fisheries Management (Conservation) Regulation 2008* has stated a harvest quota by pieces of 12 coral species in which used as a baseline to monitor a sustainable trade of specimens. Likewise, the fisheries export license issued for the aquarium exporters serve to legalise such trade, assuming that it is what the Convention text requires in terms of the Legal Acquisition Finding (LAF). The same notion applies to the trade of born-in-captivity species such as giant clams and other Appendix II listed species traded for commercial purposes. Furthermore, there is no specific license issued for CITES trade, however as mentioned there is a fisheries export license that allows issuances of an export permit in general, hence it does not specify conditions for CITES specimens in trade. So, with following the sample permit provided by the Convention, the Ministry of Fisheries has drafted a similar formatted permit to be used in the marine specimen trade as a supplementary document to the general export permit, which can only be issued subject to the conditions met for marine aquarium fish and export licenses.

Meanwhile, this model contradicts the Convention text explained in the Resolution Conf. 10.3 and 18.6 (CITES, 1997 and 2019). The Resolution Conf. 10.3 recommends that the designation of SA should be independent of MA for all Parties to the Convention. Also, in Resolution Conf. 18.6 emphasizing Parties regarding the significant roles and responsibilities of MA in terms of reporting obligations, coordination, and capacity-building, urging the MA to cooperate closely with enforcement authorities in fighting

against illegal trafficking of wild fauna and flora; and MA in consultation with their SA on deciding on the disposal of confiscated live specimens (CITES, 2019).

Overall, the implementation of the roles and functions of SA and MA at the Ministry of Fisheries is overlapping; mostly, SA roles still need to be explicitly revised when permitting issuance. On another note, the CITES Parties' country profile (CITES, 2023d) has only 15 that designate their fisheries department in their country as one of their MA and SA, and that includes Tonga.

#### **1.4.1 Thesis Question**

As mentioned above, the Government of Tonga, through the three organizations, are responsible for the CITES implementation in Tonga. Generally, the Convention recommends that a Party should have separated organizations for Management and Scientific authorities and be independent of each other when carrying out its roles and functions. This is to ensure that scientific advice will be provided independently of economic and other interests, since Tonga still consistently relies on wild fisheries stocks for food and income. The prohibition of harvesting, processing, and exporting sea cucumber was lifted based on the Cabinet Decision no. 355, 7th May 2021, and harvesting of sea cucumber (inclusive of CITES-listed sea cucumber species) to be effective from 31<sup>st</sup> May to 30<sup>th</sup> September 2021. This decision was subject to financially assisting the local people by empowering them due to the negative economic and social impacts caused by COVID-19 (Ministry of Fisheries, 2021).

The Ministry of Fisheries issued 14 licenses to those that met the requirements according to the policy and *Fisheries Management Act 2002*. A total of 4.2 million pieces, weighing 91 tons, were exported during this period. Furthermore, while focusing on recovering the national economy from the post-pandemic, the decline in wild fisheries stocks for various reasons, including climate change and overfishing, still exists. Therefore, the Ministry of Fisheries (2021) listed new initiatives to ensure that productions from the fisheries sector meet the country's food and income demand through sustainable harvesting and legal trade especially complying with Convention provisions as a Party.

It is, therefore, in the best interest of this research to study the Ministry of Fisheries as a designated MA and SA. This critical factor influences Tonga's compliance with CITES. So, taking the Ministry of Fisheries as the case study of this research, a hypothesis would be.



- Why does Tonga fail to comply with and implement CITES through the Ministry of Fisheries?

Notably, the study has the following objectives to guide the research question:

Objective 1: Evaluate the functions of the Ministry of Fisheries in presenting its roles as the CITES Management and Scientific authorities.

Objective 2: Addressing identifiable voids that influence the implementation of CITES by the Ministry of Fisheries

Objective 3: Provide baseline solutions for efficient and effective implementation of CITES in Tonga.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Initially, when revisiting the research question of this study as to “Why does Tonga fail to comply with and implement CITES through the Ministry of Fisheries?” leads the focus of this chapter exploring different literature settings amongst Parties to the Convention based on their implementation level, and through a fisheries context. Since fishing is a global industry, it is necessary to appreciate Tonga’s fisheries fully and understand how fisheries resources bring an economic incentive for the nation, hence why implementing CITES is significant for efficient trade.

There is a lack of publications on CITES in Tonga or other Oceania Parties, which could be due to CITES still in its infancy in the Pacific, including Tonga, or CITES is not a priority. Likewise, CITES has provided an agreed set of guidelines for trading flora and fauna to ensure their conservation, existence, and habitat. However, Wyatt (2021) explained that implementing and complying with the CITES in local Parties have encountered challenges since its official declaration as an international conservation mechanism. Such challenges depend on the context, but other Parties can share the same experiences, especially in developing countries (Wyatt, 2021).

This chapter, therefore, includes a literature review on some pertinent aspects of CITES implementation in the global context. In reviewing the relevant literature, some common aspects, including the lack of adequate legislation and enforcement (2.2), followed by a discussion of the lack of resources, capacity, and equipment (2.3); institutional setup (2.4) and the chapter ends with the compliance measures (2.5).

#### **2.2 Lack of adequate legislation and enforcement**

As CITES is known as one of the most successful conventions, 108 of 184 Parties have legislation in Category 1 status (CITES, 2022). The Resolution Conference 8.4 (Rev. CoP15) describes the “domestic measures” in the CITES context as initial compliance, which is usually codified in national laws and regulations, to prohibit trade in specimens in violation of the Convention, to penalize such trade, and to allow for confiscating specimens involved in illegal trade or possessed (CITES, 1992).

Furthermore, Robbins (1997) claims inadequate legislation jeopardizes CITES's effective and efficient implementation. Similarly, Al Hamdan, Abido, El-Kholei and Abahussain (2020) argued that the Gulf Cooperation Council (GCC) countries which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE), have a legal framework that is not conducive to an integrated and holistic measure for complying with the Convention; and that a well-established legal system is crucial in successfully complying with and enforcing CITES. For example, Mexico acceded to CITES in 1991, and the Convention's implementation improved from 1997 to 2001 with an improved legal structure, which improved its policy toward international wildlife trading (Arroyo-Quiroz, Perez-Gil and Leader-Williams, 2005).

Moreover, the critical need for domestic legislation ensures that a Non-Detriment Findings (NDF) is implemented for sustainable trade such as the case in Southern Africa. Abensperg-Traun (2009) concludes that limited capacities in their legal CITES instruments have allowed trade of more than or equal to 30,000 plant and animals' species listed under the Convention without an NDF verification that such trade could cause species in the wild population to be detrimentally affected. Also, with this case has accelerate chances of illegal trade and poaching will accelerate.

In addition, domestic CITES legislation is essential, yet having a clear understanding of the context is also important for the policymakers and implementing agencies. Bashyal, Paudel, Hinsley and Phelps (2023) described a significant need for a detailed understanding of subnational legislation to implicitly understand Nepal's legal and illegal wildlife trade using the orchids trade as an example. Such issues regarding the orchid trade bounces back to the fact that exporters or relevant implementing stakeholders do not understand the conditions directed through the national laws or policies on CITES traded specimens. Their findings highlighted the importance of harmonizing national laws with sub-national legislation and implementation. In this case, if academics and policymakers need help understanding the legislation and using it to classify what trade is legal or illegal, there is no reasonable expectation to comply with wildlife legislation.

In relation to enforcement of the Convention, Siriwat and Nijman (2018) highlighted the importance of strengthening the domestic legislation to increase regional cooperation to effectively acknowledge and enforce CITES regulations in the trade of rosewood timber species, specifically for *Dalbergia cochinchinensis*, *Dalbergia bariensis* and *Pterocarpus macrocarpus* found in the Southeast Asia region. Foster, Kuo, Wan and Vincent (2019)

argue that enforcement issues are a "constant concern" for the CITES CoP because, despite the export ban imposed on all dried seahorses, an estimated figure 95% of the dried seahorse imported from source countries to Hong Kong indicates the need for more law and regulation enforcement. In this case, the enforcement issue becomes secondary to inadequate domestic legislation.

Furthermore, Sadovy (2010) stated that the most pressing challenge for achieving sustainable international trade is to stop illegal, unreported, and unregulated (IUU) trade, which occurs at national and international levels which occurs in Malaysia, Indonesia, the Philippines and elsewhere. Similarly, the unmonitored trade out of Singapore into mainland China and the continuing illegal sale of humphead wrasse in Fiji should be addressed. Dongol and Heinen (2012) emphasize the significance of prioritizing sectors to include the role of customs and police in Nepal for the efficient management and enforcement of CITES because it appears negligible. However, strict law enforcement and administrative structure contribute to effectively implementing the CITES (Al Hamdan et al., 2020; Arroyo-Quiroz et al., 2007). Nevertheless, more resources must be needed to enforce the existing wildlife trade laws (Robbins, 1997).

Overall, it is important to note that these literatures emphasized that inadequate legislation specific for CITES will lead to inefficient and ineffective enforcement work, hence implementing other relevant CITES activities such as monitoring a sustainable trade. In this case, more open opportunities for illegal trade and trafficking to occur amongst Parties and could also be secondary to some political aspects.

### **2.3 Lack of resources/capacity/equipment**

The lack of resource capacities including financial, time commitment and training knowledge of the Convention had discouraged some Parties and partially involved in implementing CITES effectively and efficiently (Baker, 1999). Such capacities is required to consistently established and maintain the responsible institutions for MA and SA for trade controls, enforce laws and regulations related to trade controls, and deter violations of the controls (Reeve, 2004) Likewise, the lacking financial support and human resources has resulted in countries facing challenges in CITES permit issuance, including determining trade legality through the presence of legal acquisition findings (LAFs) by the exporters (Reeve, 2004). This case is observed in the trade of seahorses from Thailand without presenting an NDF document to verify the sustainability of the

trade due to a lack of capacities in developing one, hence making the trade illegal (Foster et al., 2019).

Dongol & Heinen (2012) also explains that their findings on the leading prioritized pitfall in the CITES implementation in Nepal regarding administrative and management capacity are mainly due to the need for more resources in implementing agencies. In this case, it includes limited staff with little knowledge in the management and enforcement division, hence small funding available to carry out enforcement work such as inspection, producing management plans including NDF document. In their situation, simple economic motives dictate the poachers' and smugglers' actions to cash in on highly priced species on the international black market. However, in Art. XIII (CITES, 1973b) of the Convention text states the legal basis for the recommendation to suspend trade subject to: “... any species included in Appendix I or II is being affected adversely by trade in specimens of that species or that the provisions of the present Convention are not being effectively implemented.”

However, this statement of course shall verify by the MA of Party to the Secretariat for the final decision whether trade suspension is appropriate or not; such decision usually observed in cases involve commercial trade for rhinos and tigers (Robbins, 1997).

The general obligations to CITES are costly (Wyatt, 2021), and the 184 Parties have varying abilities and inclinations to fulfil them. In this case, in big countries and continents such as Africa, the size of wildlife trading is overwhelming, and the financial capability needs to be improved to monitor trading effectively. Several sources point to a need for more human resources and capacity building, which precludes the effective implementation of CITES—for example, trained technical experts to inspect incoming and outgoing shipments physically and effectively (Al Hamdan et al., 2020).

In addition, another capacity needs are the lack of equipment, including a need for more infrastructure, such as a rescue centre for confiscated specimens to store while enforcement protocols are still in process. Such equipment includes a DNA analysis machine for more specific identification of CITES-listed specimens. For example, Al Hamdan et al. (2021) in their paper explain the setup at the borderline control, which is highly equipped with an air-conditioned building, cages of different sizes for quarantining animals, sampling areas for the veterinarians to inspect their samples, a different building for plants and seeds inspection. These setups ensure that the banned flora and fauna

specimens and their derivatives listed under the Convention are fully detected. Likewise, Robbins (1997) also highlighted that the need for wildlife-trained inspectors and appropriate equipment could not implement required monitoring processes and procedures, escalating smuggling.

## **2.4 Institutional setup**

Cooperation and collaboration among relevant parties are fundamental for the Convention's implementation; however, its absence is a huge setback. Nevertheless, it is evident and confirmed that the institutional setup and greater internal coordination between institutions and executing agencies are critical for successful compliance with and enforcement of CITES (Al Hamdan et al., 2020). In this case, Dongol & Heinen (2012) describe the institutional context of Nepal, noting the political instability as the major hindrance as it encouraged corruption resulting in poor performance and low public and political support for the enforcement work, thereby increasing poaching and trafficking of CITES specimens in between countries.

Furthermore, Canada demonstrates cooperation and collaboration for other parties to learn from its effective CITES implementation and compliance. Their three national authorities are well connected with distinct roles and good working relationships and have extended beyond working with other Canadian agencies, the U.S., and international partners (Wyatt, 2021). In other importing Parties, biosecurity compliance becomes an issue for the import requirement of all live aquatic animals accompanied by a disease certification document; coordinating and cooperating to it by some Pacific Island Countries and Territories (PICTs) due to lack of institutional capacity of management and enforcement authorities to carry out such measures (Teitelbaum et al., 2010).

Moreover, a significant institutional setup gap is due to the need for dedicated committees for monitoring issues relevant to compliance, implementation, and enforcement (Reeve, 2006) and Wyatt (2021) agrees that this gap reflects the limited institutional capacity witnessed when analysing the information on national reports revealing a partial picture of the actual trade that occurred. In such cases, because various institutions at national levels have responsibilities, only some contribute to the national annual CITES report submission.

## 2.5 Compliance measures

The Parties' legally binding requirement for the national annual report submitted to the CITES Secretariat is one of the critical obligations that various countries still need to comply with (Reeve, 2006). The legal basis of Article XIV (CITES, 1973h) of the Convention texts where Parties should adopt in their domestic legislation elaborates on the suspension of trade in CITES-listed species, which is known to be a frequent recommendation against non-compliant countries (Reeve, 2004).

Also, Reeve (2006) enlightens a few evidence on certain Parties who have been subject to a recommendation to suspend trade. The findings suggests that such suspension may result from persistent failure of the Parties to comply with the CITES that includes failure to submit reports on three consecutive years, failure to respond with sufficient scientific data to verify a review of significant trade for species.

Table 1 recorded the number of Parties and their trade suspension periods. In this case, two countries from the Oceania region, namely Vanuatu (2002) and Fiji (1999 – 2004), were involved in the general restraints due to failure to demonstrate legislative progress under the NLP and persistent non-reporting.

*Table 1 – Number of countries and their suspension period.*

| Suspension period | No. of Parties | Reason(s) for suspension                |
|-------------------|----------------|---|
| 1985 – 2005       | 8              | Generalized non-compliance              |
| 1999 – 2004       | 17             | Suspension under NLP                    |
| 2002              | 8              | Suspension for persistent non-reporting |

*Source: Reeve, 2006*

However, with the above motives stated for a trade suspension to occur, Blundell (2007) argues that when a Party fails to comply with any of the CITES compliance measures, and the CITES authorities involve intervene with facts that such listed CITES species are not managed well under the Appendix II regulations; a request of Significant Trade Review (Resolution Conf. 12.8) can be made, so that the Scientific committee reviews biological, trade and other relevant data to assess the status of management of that species (CITES, 2002). Hence, if such matters are resolved, and the CITES Secretariat and the

relevant committees are satisfied with the outcomes, then the Party may not go through trade suspension.

Williams, Coals, de Bruyn, Naude, Dalton and Kotze (2021) also revealed that effective mechanisms for preventing illegal trade are essential for species survival and maintaining trust in the CITES authorities responsible for managing legal trade. Hence, it involves sharing responsibilities in providing the specific trade data needed for the national annual report submission; and cooperating to respond to feedback that may be needed from the CITES Secretariat and its committees regarding the information on the annual report.

The CITES's role in preventing illegal trade has recently been geared more towards tigers, rhinos, and elephants. Trade suspensions and large-scale seizures exist in countries of origin, transits, and destination points. Such cases were observed in 2004 for seizing several shipments of ivory in Europe being exported from Cameroon (Obasi and Vivan, 2016).



## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Introduction

An individual's concern about his/her interaction with his surrounding environment and understanding the nature of the phenomena it presents to the senses makes that person "search for truth" (Mouly 1986, as cited in Siufanga, 2009)). To achieve this, it classifies into three broad categories: experience, reasoning, and research. We rely heavily on experiences in our everyday lives to help explain and understand what is happening around us. However, experience alone is not often enough to explain what is happening, so reasoning, either inductive or deductive or both, comes into play. Moreover, when experience and reasoning are not enough, research becomes critical in providing a systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena and, therefore, can help us to understand why things happen (Kerlinger, 1986, as cited in Siufanga, 2009).

The research employs a qualitative and quantitative approach, which utilizes a questionnaire as a data collection tool. In the following sections, a discussion of the methodological aspects used in the study seven sections: thesis question; research approach; sampling procedures; data collection procedures; procedures for conducting the research; treatment of data; quality of research; and ending with some limitations of the research.

#### 3.2 Research Approach

This research follows a mixed method of quantitative and qualitative approaches. The case study is composed chiefly of a quantitative research approach. However, qualitative data collection also presents otherwise close-ended questions on the questionnaire sheet for the participants to give additional information to add depth.

The responses given on the questionnaires and interviews were categorized as either quantitative or descriptive data. All participants gave their impressions of lived experience and knowledge in the questionnaire to enable quantitative interpretation. The quantitative data was then analysed concerning the additional qualitative data collected, thus addressing the lack of depth that sometimes arises when only using a quantitative approach with no explanations of the quantitative data.

### **3.3 Sampling Procedure**

The research specifically targeted the Ministry of Fisheries and its relevant stakeholders which are the aquarium exporters. The participants were purposively selected based on their expert personnel, which includes direct work with management, enforcement and scientific research information and is not limited to CITES experience. Also, we only involve an individual willing to participate in the study, given they signed the consent form, mainly at the Ministry of Fisheries and their stakeholders, NGOs, and other relevant line Ministries, including the Department of Environment and Customs Department. So, 20 sampling participants were selected in total; (13) from the Ministry of Fisheries and its stakeholders, (2) from the Department of Environment, (2) from NGOs, (1) from the Customs Department, and (2) from research students. In addition, the different perspectives and personnel of participants who participated in the study have allowed a variety of knowledge on CITES, its implementation status and how to improve for better implementation in the future for Tonga's fisheries sector.

### **3.4 Data collection Procedure**

The study includes both primary and secondary data collection techniques. These techniques were employed to get in-depth information from the participants on CITES implementation in the fisheries sector. The primary tool used for this case study research were questionnaires and interviews.

In the study, mainly the information was captured from the questionnaire (Appendix A), which was administered via email and in-person for completion for a purposively fifteen (15) participants. In-house training on CITES implementation in the Fisheries sector occurred around August 2022 for staff that works with management, enforcement, and scientific research, around the same time interval planned for the research's data collection. So, the evaluation session for this training was the best opportunity to distribute the questionnaires to the staff and capture the data needed for the study.

Likewise, for the participants from NGOs, the Department of Environment, and research students, the questionnaire was sent via email, and they agreed for the completed sheets to be collected after 2-3 days.

For the "Talanoa" method, five (5) experts were interviewed for this study. Establishing formal and informal conversation with the interviewees gives more reliable data for the study—the same questions in Appendix I were used to guide the "Talanoa" session, hence

collecting the information. Finally, upon the availability of the interviewees, three (3) opted to conduct via zoom and the remaining two (2) scheduled for face-to-face "Talanoa" sessions upon their availability. The researcher attempted to interview up to ten (10) participants from various expert personnel mentioned for this study; however, only five (5) were available to be interviewed; the others wanted to do questionnaires instead, while some did not willing to participate in the study. Likewise, the secondary data for this study was obtained through desktop research of many literature papers to gain insight into CITES work and requirements from various countries' perspectives. Nevertheless, not all were relevant to the content of the study.

Additionally, each participant was briefed on the purpose of the study and given a consent form to sign before proceeding. They were also informed that their participation was voluntary, would not incur unique benefits or penalties from their organizations, and that all the information they provided would be presented anonymously. All selected participants agreed to 100% participate in the study through interviews and questionnaires. Each person was asked a series of questions under three different sections based on their expertise; they only had to answer or discuss what was relevant to their current work practice with CITES. Interviews lasted 60 minutes on average, and upon agreement, a third person party had to be present, and recordings were not consented to by the interviewees. Overall, the questionnaire consisted of open-ended questions requiring participants' feedback and an overview of their work relevant to the CITES implementation in Tonga.

### **3.5 Procedures for conducting the research.**

A research permit was requested from the Prime Minister's office to allow the sharing of knowledge and data from the relevant government agencies involved in the study. The relevant line Ministries are the Department of Environment and the Customs Department; the Non-governmental organization is the Vava'u Environmental Protection Association (VEPA). The academic institutions were the University of the South Pacific, Fiji and the University of Otago, New Zealand; both students studied Marine Science. Finally, the Fisheries stakeholder expected all the marine aquarium exporters to participate; however, only one (1) could participate in the study. Also, other products for consultations of related journal articles and peer-reviewed documents are available online to analyse and interpret the findings from this research; and utilise the information obtained for secondary data.

### **3.6 Treatment of data**

At first, after collecting all the responses from the interviewees and questionnaire sheets. It was summarised in Microsoft excel by question types. Since there were (3) sections with a mixture of multiple choices questions, and short and long answers, (3) sheets in excel were created for easy summarization of the information.

The first excel sheet summarises the multiple-choice questions, basically the open-ended questions; this summary gives the study's quantitative data and is used to produce graph representation for interpretation in Chapter 4. The second excel sheet followed this had a mixture of short and long answers summary. In contrast, the third excel sheet presented the long answers with mainly the participants' recommendations, feedback, and way forward.

Overall, the quantitative data were analysed in percentages and later used to draw the graphs presented in the Figures discussed in Chapter 4, along with descriptive data that was also analysed in percentages of the most common answers amongst the 20 participants and discussed in Chapter 4.

### **3.7 Quality of Research**

This study could serve as a baseline for evaluating national authorities in any country and is broader than the context of Tonga, noting the challenges presented in the case study of this research. Likewise, by using the research question and objectives, any researcher or an interested organization in Tonga extend the same study, however, to evaluate all the CITES authorities in Tonga instead of one Ministry as in this research; and then compare their relevant mandates and responsibilities to assess the best authorities suitable to be included in the designation of MA and SA without conflict of interest in placing the same authorities in one organization as in the case of the Ministry of Fisheries.

Furthermore, although this research is a case study-based approach, it has limitations in terms of it being the first research study in Tonga on CITES since it became a Party to the Convention in 2016. It could have covered many aspects, including local community perspectives on CITES and the inclusion of more relevant sectors. However, limited resources include financial research support, available time, and the participant's interest in the study. Additionally, among possible candidates selected to involve in the study, the majority hesitated to participate mainly because either they still needed to learn of the existence of CITES or they might know but not know many details about the Convention.

Likewise, limited literatures are available on CITES implementation in Oceania Parties. However, other available literatures articles on CITES implementation have similar aspects and issues that Oceania Parties faced, including Tonga. These literature articles supported the information captured from the participants in the case study.

Overall, this research successfully captured sufficient information to support the proposed hypothesis and objectives and noted more ways forward for future assessments.

### **3.8 Challenges encountered and limitations.**

The main challenge of this study is persuading candidates to participate and getting relevant information from the participants; a majority wanted to refrain from participating. In this case, the questionnaires were revised and redistributed to the same individual for another attempt in a way that they understand the context of the study and its purpose. This challenge is secondary to only some participants being familiar with CITES. Secondly, there needed to be a funding budget for the research work to cover expenses such as transportation, printing, travelling, and internet access. Also, time management is another issue, as work commitments influence the research's progress, so the researcher had to find available time to work on the research. Also, fortunately, a CITES in-house training in the fisheries sector, so we had to propose the evaluation session of this training for participants to answer questionnaires while they are attending the training. Additionally, in the data analysis, some questions were mostly ignored by the participants, which is not included in the analysis of the results. It does not generally affect the result; it is included in the questionnaires to provide more details on the CITES implementation in fisheries.

Overall, the continuation of the research was subject to the challenges faced when doing the research; however, this thesis paper believes that its findings will open more opportunities for further research on CITES, not limited to Tonga but other Oceania Parties also.

## CHAPTER 4

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

This chapter examines and discusses the findings of the case study research focusing on the substantive theory of why the Ministry of Fisheries fails to comply with and implement CITES. The chapter includes three sections, which are the research objectives that guide the study's research questions. First, section 4.2 of this Chapter tailors the evaluation of the roles and responsibilities of the MA and SA in the case study, the Ministry of Fisheries. Section 4.3 addresses the challenges faced by the Fisheries when implementing CITES, and finally, are recommendations and way forward for the CITES implementation in Tonga based on the study's findings. This analysis of the information captured from the research case study has provided significant findings on barriers to CITES implementation in Tonga.

#### 4.2 Evaluate the functions of the Ministry of Fisheries in presenting its roles as the CITES Management and Scientific authorities.

The Ministry of Fisheries, as one of the designated Management Authorities and Scientific Authorities for Tonga, had initiated this study focusing on evaluating its roles and responsibilities as a reference for Tonga's obligation under CITES. The expert personnel in the case study presented in *Figure 3.1*, including a total of 60% of the participants works directly in trading, trade management and enforcement work, and 40% provide scientific information on quota setting, research, and monitoring work. Extra analysis on gender roles was observed among the participants, with 70% of the participants being male and 30% belonging to female participants. These roles and responsibilities of the expert personnel is correlated to the general functions of MA and SA.

Minus the participants from the Department of Environment, Customs and NGO, the fisheries sector initiated tailoring the operations of MA and SA. An interviewee from the

study questioned this practice because he does not agree with the Ministry of Fisheries being both the MA and SA:

"... if it is possible at any level that the capacity of the fisheries sector in Tonga could carry out both the functions of MA and SA."

Article IX, paragraph 1 (CITES, 1973c) provides that the only the Management Authority can grant permits and certificates. Therefore, with the current practice with the Ministry of Fisheries; it is difficult to consider having two authorities tasked at the same organization and carry out independent roles and responsibilities.

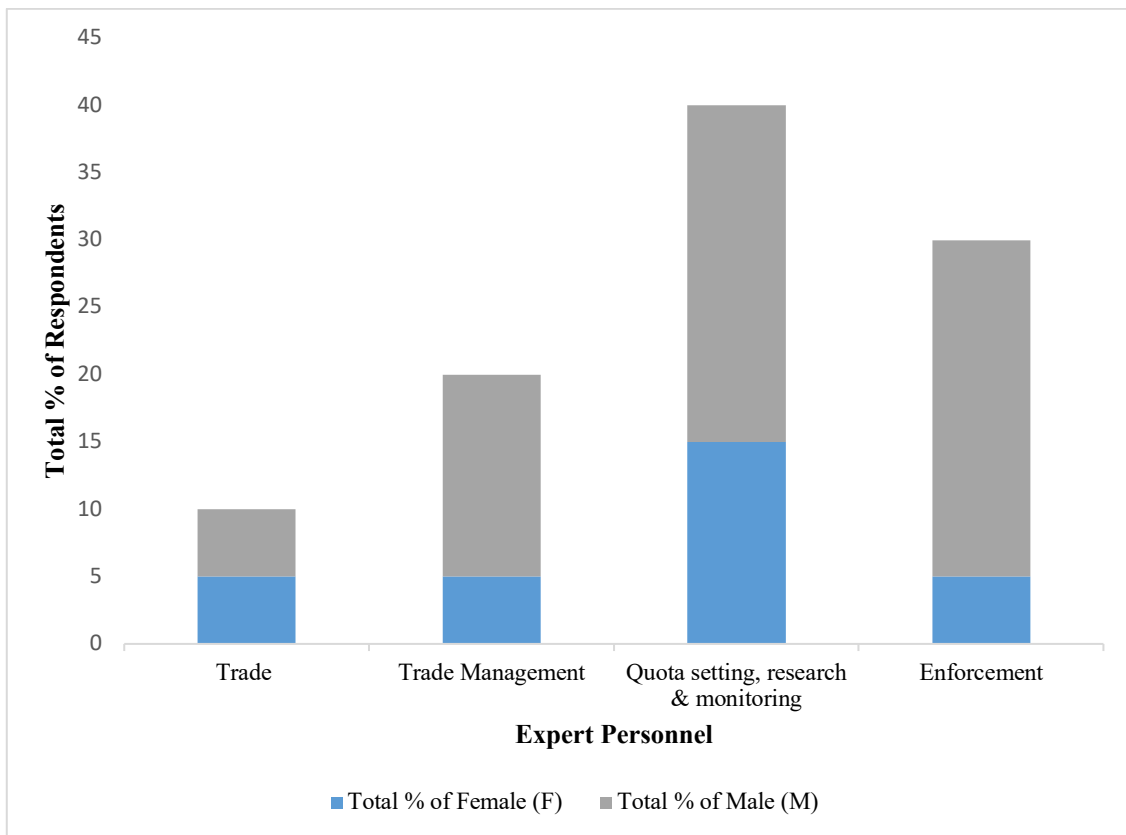


Figure 3.1: Expert Personnel of Participants.

Moreover, Fa'otusia (2021) reports that the designation of Tonga's MA and SA in Tonga was made through a Cabinet decision, with the Department of Environment and Ministry of Fisheries as the Management Authorities. At the same time, the Scientific Authority consists of three ministries: the Forestry Department under MAFF, the Ministry of Fisheries, and the Department of Environment under MEIDECCC. However, with these

designations of authorities, this practice has yet to be put down in writing, meaning that no legislation has included it.

Furthermore, *Figure 3.2* illustrates that 40% of the participants heard of CITES mostly between 2000 – 2005 and 2006 – 2010 interval periods, mainly through various international and regional fisheries meetings, workshops, and various participation in projects on turtle conservation based in Tonga. However, this knowledge is not implemented in daily routine because of lack of knowledge and understanding of the CITES as a participant from the Fisheries Science Division state,

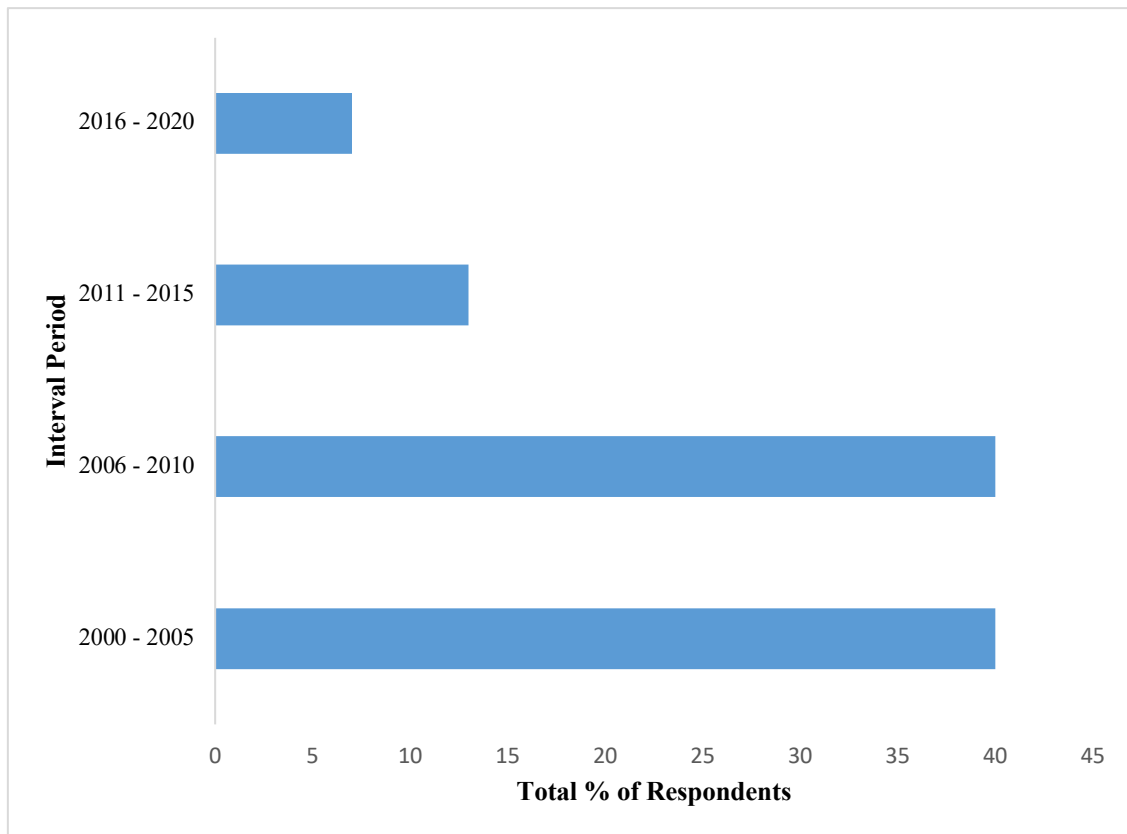
“... we cannot link what we know about CITES in terms of the scientific data we collected from our survey and research work.”

Also, 13% of participants who learned about CITES between 2011 – 2015 are returned scholars and current postgraduate students learning about the Convention through some courses at their academic universities. With the most recent interval of 2016 – 2020, 7% of participants just learnt about CITES in a group discussion at work or with other colleagues during relevant meetings or pieces of training where CITES was part of the agenda items, as a participant responded that,

“... I’ve heard of CITES randomly at meetings and discussion groups, but I had no idea that Tonga is a Party to the Convention, until I participate in this study.”

We can conclude from this information and data collected that participants are aware of the Convention but so little, they do not understand the importance of implementing CITES and comply with its requirements especially at a national level.





*Figure 2.2: Interval Period of when the Participants first heard of CITES.*

The specific intervals indicate in *Figure 3.2* that such Pre-CITES Party knowledge may have led to the interest amongst relevant stakeholders to discuss at a national level, hence formulating the proposal to become Party to the Convention later in 2016. Smith, Benitez-Diaz, Clemente-Munoz, Donaldson, Hutton, McGough, Medellin, Morgan, O’Criodain, Oldfield, Schippmann and Williams (2011)'s assessment of international trade impacts on CITES-listed species found that the significant difficulty in CITES implementation by national authorities is partly due to limited knowledge and understanding of species biology, as, a participant stated:

"... one of the challenges in enforcing the species especially those listed under the Convention is that we are not confident with the species identification, so confiscation based on CITES requirements is difficult; and we cannot carry around books and apps for reference especially when you are at the border control."

In addition, *Figure 3.3* showing the results of the participant percentage that have undertaken a research survey and or have done an NDF development on any known marine species not limited to be listed under the Convention. 50% claimed that their core duties involve scientific research, however, another 50% have not done any research on

marine species and not limited to the CITES-listed species. The information collected from the case study clearly illustrates fisheries scientists have limited focus in their scientific research that minority has been exposed to non-detriment findings development and its use in monitoring the trade specifically for CITES-listed species. The NDF report is the science basis of the Convention, and it is essential that scientific information on specific species in trade are available when producing one. However, a participant's perspective on NDF; states that,

“... we usually enquire from the importing countries an NDF document for some specimens to be able to export from Tonga. However, the Ministry do not have that document ready when requested for it. So, we are not sure if NDF is important in terms of aquarium trade or even a part of the CITES requirements that exporters needed to comply with.”

Likewise, it is also argued by Arroyo-Quiroz et al. (2005) in their paper that CITES implementation in Mexico that; a lacking clear understanding and expertise on the obligation under CITES is one of the leading factors to failure in a country's implementing the CITES requirements at a national level.

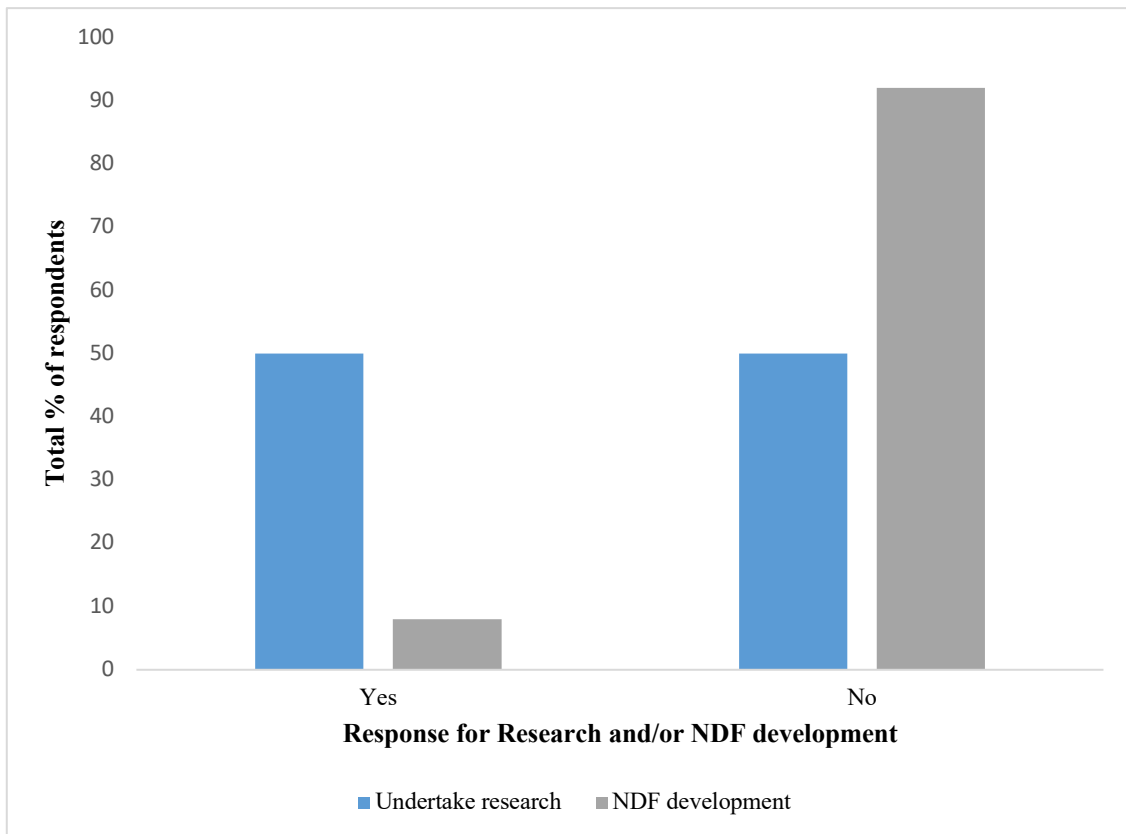


Figure 3.3: Participants who have done research and/or NDF development on any CITES-listed marine species.

With Figure 3.3 again, 92% stated that they do not know what Non-Detriment Findings (NDF) is, and its purpose in providing scientific information strongly accounts for why every export permit issued from Tonga does not have NDF verification to ensure sustainable trade. This mainly due to lack of capacity knowledge of the roles of SA which covers what an NDF, hence Wyatt (2020) added that consistent scientific and environmental knowledge is critical in carrying out administrative work of enforcing wildlife trade. So, some participants know about NDF content but failed to incorporate it into the scientific data available so that to produce a NDF document for such trade.

In addition, the level of knowledge presented by the participants also accounts for the overlapping roles and functions and needing to know that there is need for scientific proof of NDF document to ensure the trade is sustainable before issuing an export permit. The remaining 8% claimed some involvement in minor activities relevant to NDF development. Such involvement includes data compilation for an NDF development funded overseas through the South Pacific Regional Environment Programme on relevant marine habitats for potential aquaculture activities, including sandfish, pearl mariculture and turtle conservation, such as nesting sites for specific turtles' species. However, their

experience with NDF development is the lack of available data and what is available is outdated. A participant claimed that,

“... we might already have the data needed to produce an NDF, but since we do not understand the basis of an NDF document; then utilising the available data is not possible at all.”

On that note, it leads us to capacity-building work such as trainings and workshops on NDF or CITES elements to build the knowledge and to build on the existing knowledge of CITES.

### **4.3 Addressing identifiable voids that influence the implementation of CITES by the Ministry of Fisheries.**

Wyatt (2021) argues in her findings that a Scientific Authority and Management Authority must be independent of each other because quotas are meaningless when one role is influenced by the other, such as in the case of the Ministry of Fisheries. In the case study, one of the participants from the enforcement section states that,

"...we do not know when to involve in CITES implementation because the regulations and management plans that guide our daily work at the moment do not specify or outline the CITES-listed species."

In the above statement, it leads the focus to the main challenges faced in the Fisheries sector when implementing CITES.

#### **4.3.1 Lack of domestic CITES legislation.**

At first, the absence of CITES domestic enabling law as one major issue claimed by 60% of the participants that mainly impacted the CITES implementation work. In the CITES context (CITES, 1992), the initial compliance is reflected by these two obligations: the requirement of domestic measures typically codified in national laws and regulations; and the designation of one or more management authorities and one or more scientific authorities (Baker, 1999). In fact, Tonga does not have specific CITES-enabling legislation at present. However, various existing and relevant laws guide CITES implementation by the three government organizations involved in the CITES implementation, including the Ministry of Fisheries, specifically for the marine flora and fauna of CITES.

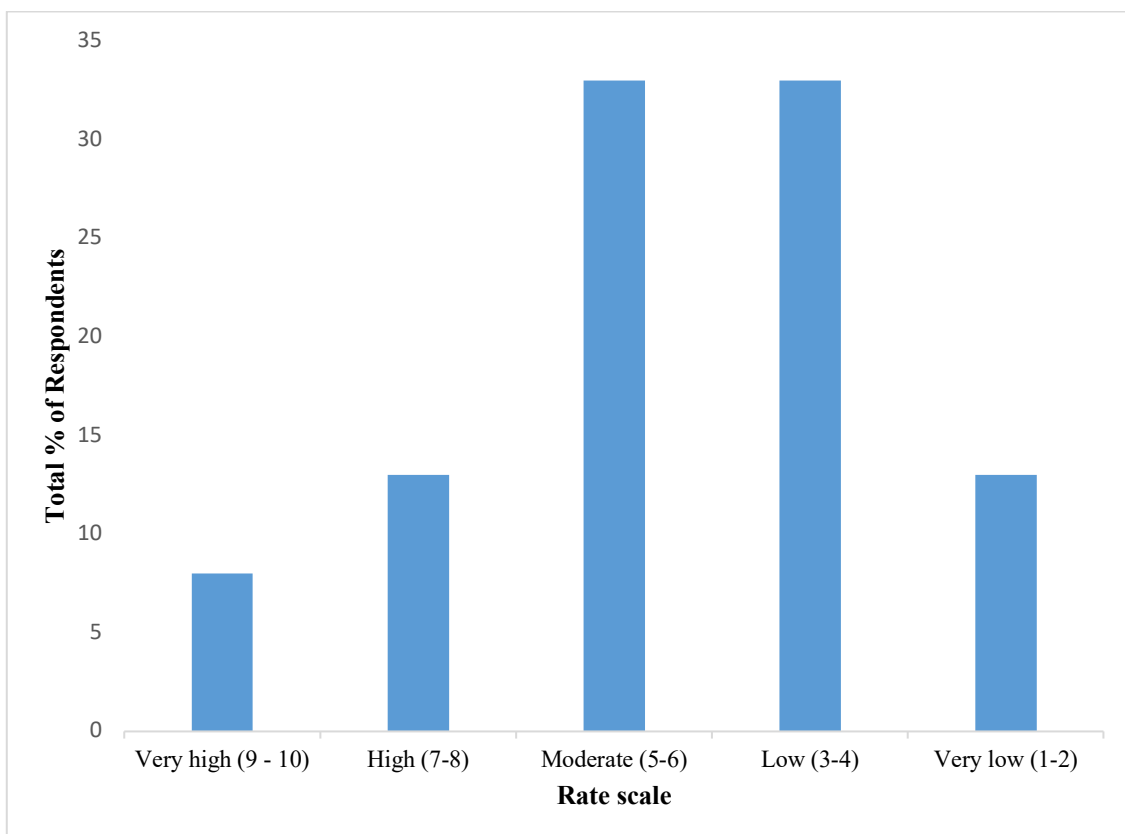
The relevant legislations are the *Fisheries Management Act 2002*, *Fisheries Management (Conservation) Regulations 2008*, *Fisheries Management (Processing & Export) regulations 2008*, *Environment Management Act 2010*, *Bird Preservation Act 2002*, *Forest Act 1961*, *Forest Produce Regulations 1979*, *Plant Quarantine Act 1982* and finally is the *Customs and Excise Management Act 2007*. Fa'otusia (2021) evaluated these legislations and regulations and found a need of a CITES domestic regulation for Tonga, based on the CITES minimum requirements to national legislation contained in Resolution Conference 8.4 (Rev. CoP15) (CITES, 1992) that are absent from the relevant legislations currently used.

As previously mentioned, the designation of CITES authorities in Tonga were through the cabinet decision, no existing laws legally state that designation by writing. Meanwhile, all the marine-based and terrestrial-based legislation mentioned above do not expressly designate or provide a provision referring to the Scientific and Management Authorities. And since the law recognises what is written, it is vital to expressly specify this in the legislation. Therefore, from a legal perspective, no Management Authority nor Scientific Authority can facilitate and implement CITES through national legislative provisions (Fa'otusia, 2021).

Also, the abovementioned legislations and regulations establish their respective administrative authorities and functions. For instance, section 8 of Tonga's *Fisheries Management Act 2002* establishes the Fisheries Management Advisory Committee, which advises the Minister on the conservation and sustainable development of fisheries in Tonga. However, it does not provide Management and Scientific Authority for CITES. The same goes for all the other mentioned legislations and regulations. Moreover, the power to grant or approve a plant or animal's export or import licence is usually vested in one person or authority, which states clearly in the provision of specific legislation such as licensing and permits. For example, in section 33 and 35 of Tonga's *Fisheries Management Act 2002*, the CEO for fisheries has the authority to grant fish processing and export licences, amongst others. Yet, it does not cover whether such a licence is granted upon the technical advice of a scientific committee or authority on a non-detrimental finding (Faotusia, 2021).

In addition, Siriwat and Nijman (2018) shared in their findings that loopholes in regulations and legislation allow for the (purposively) misidentification and misinterpretation, ultimately undermining the ability to effectively regulate the trade in

any CITES-listed species. In our study, *Figure 3.4* illustrates 79% of participants in total rated from very low to moderate level of their CITES knowledge. The rate implies that the knowledge of CITES they have including CITES-listed marine species names and the basic requirements for the three CITES Appendices. A few participants have additional knowledge when involved in the drafting of the newly CITES regulation for Tonga and reviewing fisheries management plans of sharks. The 13% of participants that rated a high level claimed to have extra information on the basic roles and functions of CITES MA and SA and attended some species identification trainings in which they can distinguish one or two species listed under CITES on the spot. The remaining 8% claimed to have a very high level of CITES knowledge, with additional on CITES implementation and annual report submission by Parties to the CITES Secretariat annually and biennial.



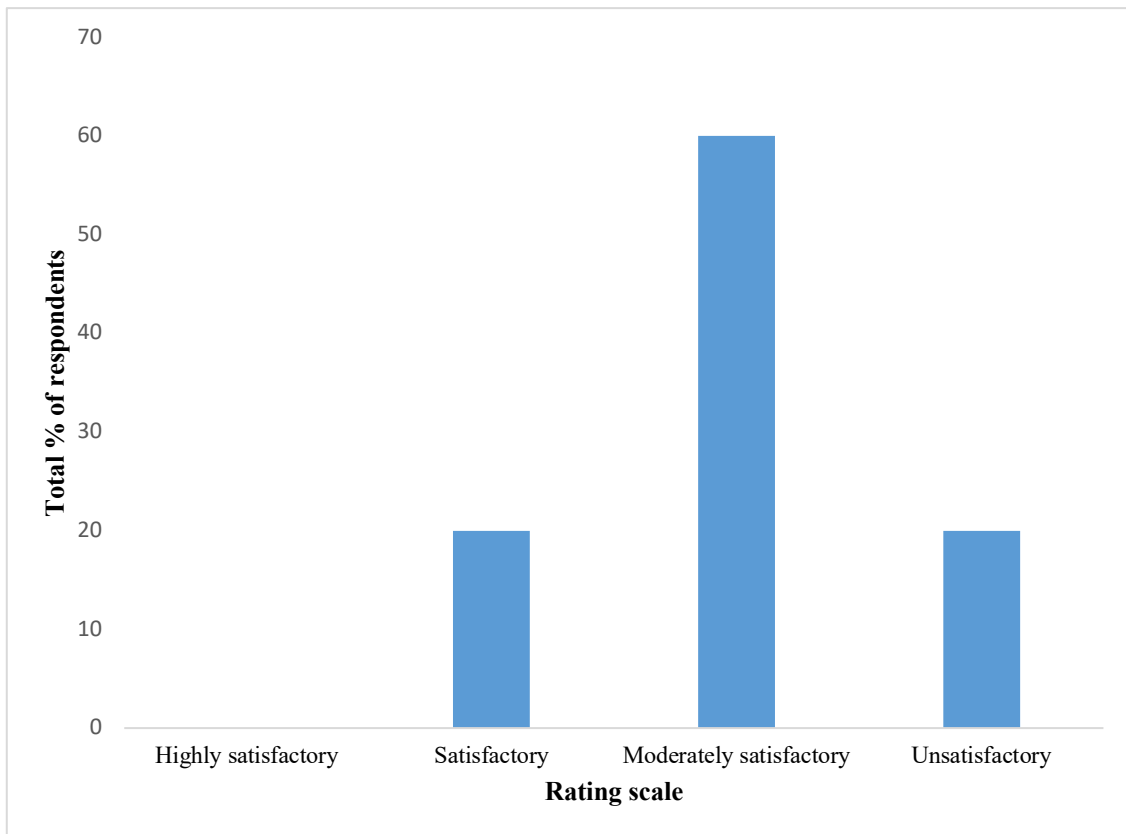
*Figure 3.4: Rate scale of CITES-based knowledge of the participants.*

The level of CITES knowledge illustrated in *Figure 3.4* indicates how it impacts the implementation capacity of the Ministry of Fisheries as a MA and SA. With this knowledge at hand, it still misleads responsible staff with the current practice of CITES implementation, because the legislation is not consistent and supportive, and hence discourage the interest to learn more about the Convention as a priority for trade

regulations in Tonga. Since the relevant provisions of the legislation lean towards marine plants and animals or only terrestrial plants and animals, with no legislation comprehensively dealing with marine and terrestrial plants and animals or all CITES-listed species, regardless of whether they are marine or terrestrial based and whether they are native to Tonga or not.

The Convention defines *specimens* as including live or dead animals, plants, parts and derivatives of such animal or plant included in the three CITES Appendices (CITES, 1973). However, the interpretation sections of Tonga's current legislations do not cover the definition of specimen or species as provided for in the Convention. They also do not expressly refer to the Conventions Appendices. Additionally, a few legislations enable the Minister to amend their schedules. For example, Tonga's *Birds Preservation Act 1988* has a few named birds in its Schedule, including the maroon or shining red parrot. In section 3, it does not expressly specify the trade of such birds; however, it prohibits the wilful killing, shooting, capturing, or taking of such birds outside the allowed respective periods.

On the other hand, CITES (2023a) covers all types of trade transactions (except killing, shooting, capturing etc.) and includes them in the definition of 'trade.' Hence, Tonga's current legislation and regulations do not cover all types of transactions in the Convention, such as introduction from the sea. Therefore, although they cover some species' import, export, or re-export, this must be done as specified under the Convention. Therefore, the case study implies that although there is an existence of CITES based knowledge at different level rated by the participants, but in terms of utilising that knowledge in their daily work still bounces back to the lack of adequate legislation on CITES at national level.



*Figure 3.5: Views on the Management and Conservation measures of Commercially Exploited Marine CITES-listed species.*

A general view from the participants on the current practice of management and conservation measures of commercially exploited species, secondary to the current legislations and regulations used. *Figure 3.5* shows the common rating scale is moderately satisfactory which accounts for 60% of the total participants, stated that the current management plans in place for marine species not limited to the CITES-listed species are not sufficient to monitor the wild population of species in trade, hence conserving it for future generation. However, a better understanding of the Convention measures incorporates into the domestic legislation would better enhance the implementation of such existing management plans.

Moreover, a 20% of the participants rated satisfactory scale and one outstanding response from this rating scale states that:

“... the terms and conditions issued with the fisheries export license is sufficient to monitor trade specimens in Tonga, hence also suitable for the capacity and resources available at the moment.”



Finally, 20% also opted for an unsatisfactory rating scale, which explains that the current management and conservation measures need to be aligned with a regulation specifically for CITES and consistent with its requirements so that implementation activities would be easy to follow when focusing on the CITES aspects only. Therefore, with this case study finding, it is correlated to the literature explained in Chapter 2 where lacking in adequate legislation is the most common issue experienced amongst some of the CITES Parties, that have been involved with the Convention for more than 10 years or so. Similarly, Tonga is struggling with CITES implementation and hence proposing new CITES regulation to meet the first initial compliance to the Convention.

#### **4.3.2 Lacking in Capacity building activities.**

In addition, 20% of the participants claimed that capacity building efforts are another challenge. *Figure 3.6* illustrates 47% of participants who have attended training – indirectly where trainings had CITES on their agenda items and some did attend a CITES training recently in 2022 with the Ministry of Fisheries. Whereas 53% did not attend any relevant trainings on CITES. Likewise, with the CITES workshop activity, 33% of the participants have indirectly attended the national CITES workshop in Tonga held in 2019, along with workshops that has CITES on their agenda items; and 63% participants have not attended any workshops on or relevant to CITES, but through work discussion they became aware of the Convention and some of its background.

This case study result on training and workshop capacity building aspects had been argued by many scholars to have various benefits in boosting the economic and sustainable development in several countries (Wyatt, 2020). In considering Tonga as recently Party to CITES, the Ministry of Fisheries capacity and resources are insufficient to focus on CITES implementation only and ignore other priority aspects that is included in its mandates. A participant gave a statement on this:

“... even having the Ministry of Fisheries to carry out both the responsibilities of MA and SA, is already a challenge because there are other priorities that needs more attention, more budget and actions, but not with CITES.”

Wyatt (2020) also argues on the same aspect as having enough capacity strengthens an organization with its available resources to perform a certain specific mission or in our case, help in working towards fulfilling our obligations to CITES.

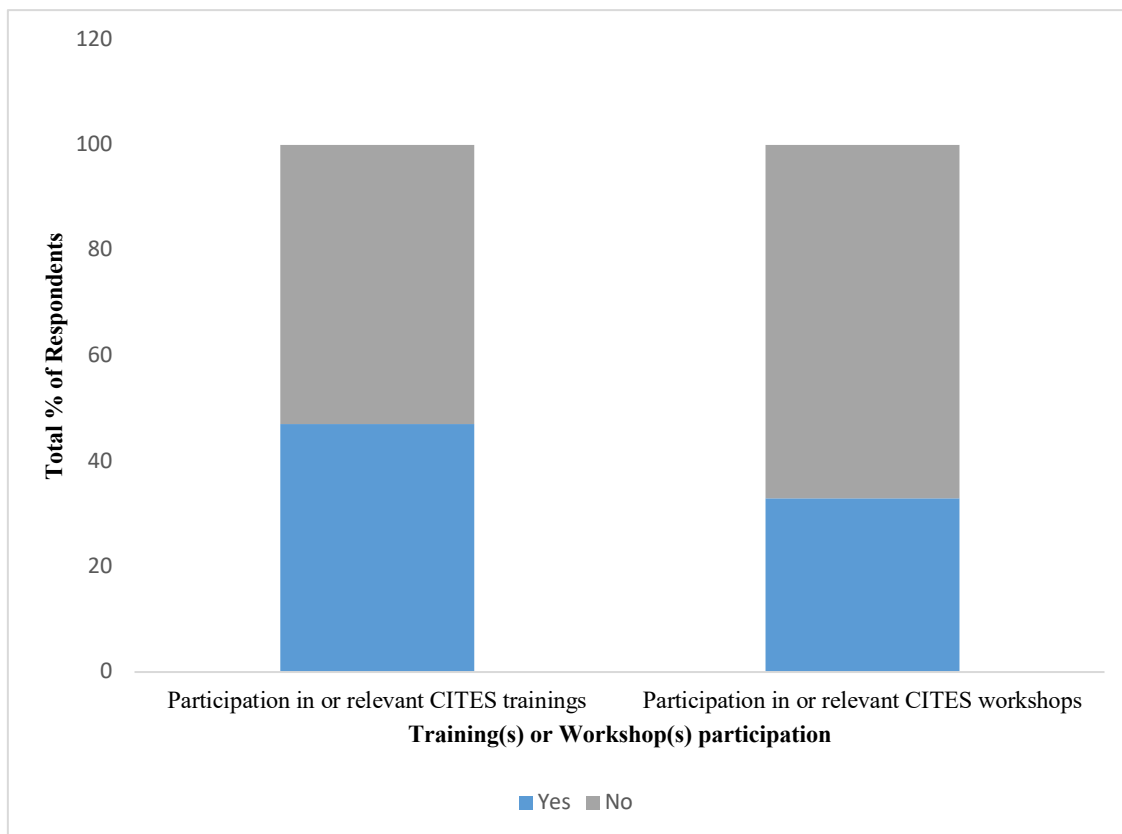


Figure 3.6: Participation in or relevant CITES Training(s) and Workshop(s).

The literature discussed how Parties with lack of resources, administrative capacities within authorities, financial wise, equipment for inspection and screening at the borderline. These are challenges in developing countries, and Parties such as Tonga, capacities like trainings and workshops are the crucial needs secondary to the enactment of the new CITES regulation. One participant explained that,

“... we can sustainably utilise the resources available including identification guides, high – qualified educated staff, available enforcement equipment etc. that we currently have if we are well-trained with consistent knowledge of CITES and its significance to our economy”.

Moreover, with the reviewed literature, capacity building including financial support, equipment, trainings programs to name a few are leading factors to enhance the ability of the CITES authorities in carrying out their roles and functions in CITES implementation; by lacking them and continuously ignoring of its significance will be a challenge to the Party’s implementation scheme of the CITES requirements.

### **4.3.3 Designation of CITES MA and SA in the Ministry of Fisheries**

Moreover, Baker (1999) mentioned the second obligation by Parties to CITES which is the designation of CITES authorities. However, as previously explained in sub-chapter 4.2, and having the Ministry of Fisheries to carry out roles and functions for both the Management and the Scientific authorities already violating such obligation. This serves one of the challenges which accounts for the 10% of response in the case study. This was also highlighted in the case study and in the level of CITES knowledge depicted in *Figure 3.2* with participants having very high knowledge of CITES are aware of the roles and functions of MA and SA and so claimed that this current practice at the fisheries sector presents a conflict of interest. Also, although it is limited to marine flora and fauna, but having the same authority to declare that the sustainable harvest of specimens in trade and is not detrimental to its wild population, and hence verify its legality aspects, thereby presenting the export permit for the trade to take place does not represent a consistent model of the implementing of CITES requirements in Tonga; in which leads back to the lack of adequate domestic legislation hence enforcement is ineffective amongst most CITES Parties.

### **4.3.4 Lack of Collaboration, Coordination and Cooperation amongst relevant implementing agencies.**

Finally, the 10% of the participants argued on the lack of adequate collaboration and constructive interaction between and among the various government institutions responsible for wildlife management or/and CITES implementation has led to administrative, educational and awareness gaps in the implementation of CITES in Tonga. Likewise, Dongol & Heinen (2012) in their study address one of the priority aspects to enhance the CITES implementation in Nepal are the importance of involving relevant implementation agencies such as customs and police with their respective roles. In the case study, this lack of collaboration and coordination could have due mainly to their level of CITES knowledge, one can only participate if it is of interest and have some certain level to be able to contribute and link the roles hence making the implementation work easily managed. It is with the lack of commitment that reflects CITES is still at its infancy in terms of its implementation in Tonga.

#### **4.4 Provide baselines solutions for efficient and effective implementation of CITES in Tonga.**

The case study approach ends with providing a way forward and feedback to improve the current practice of CITES implementation in Tonga and is not limited to the Ministry of Fisheries. 80% of the participants highly recommended enacting new CITES regulations for Tonga. In 2021, Tonga drafted the new CITES regulation - Endangered and Protected Species Regulation 2021, funded under the National Legislation Project (NLP). This new regulation is a significant way forward for Tonga's implementation of CITES because, despite the challenges discussed above, it all bounces back to the inadequate legislation present. Likewise, Yujing, Enyuan, Baoxiang, Gengfei and Ying (2010) also suggest in their study that the region or country's priority should be to strengthen domestic legislation, adopt stricter regional governance and cooperative enforcement measures, effectively implement CITES, enforce such regulations, and minimize loopholes to undermine those regulations.

Moreover, from this legislation, following the adoption of this new regulation, 16% of participants recommended a draft of CITES Management plans to include and mainstream all the implementation schemes at a national level so that each responsible organization can tab in and implement what is applicable according to their mandates. In this case, it would ensure effective implementation monitoring and that important CITES reports, such as annual and biennial reports, are submitted on time. Furthermore, the remaining 4% believed that this regulation and national CITES policies would strengthen and advise more capacity-building trainings for the relevant line Ministries on CITES implementation. Also, capacity-building training platforms would open communication channels, sharing intelligence and legal strategies, monitoring trade and non-compliance, utilization of best practices, and technical support between stakeholders, governments, NGOs, and other relevant agencies will be vital.

## CHAPTER 5

### CONCLUSIONS

In support of the hypothesis, the study had proved that the lack of adequate CITES domestic legislation which accounts for 60% of the participants, is the main challenge that influence the CITES implementation in the Ministry of Fisheries. It is also important to note that Tonga may become subject to compliance measures for lack of adequate legislation, subject 8 years after accession in 2024.

Likewise, when evaluating the roles and functions of the Ministry of Fisheries as MA and SA for Tonga, it is found that CITES-based knowledge existed still need to utilise into the daily activities for an efficient implementation. Also, a consideration of the capacities of the Ministry of Fisheries to carry out the roles and responsibilities as a national CITES MA and SA is a leading factor to failure in implementing and complying with CITES at a national level.

Finally, the capacity level at the Ministry of Fisheries is not capable of providing enough confidence on the responsible staff for implementing CITES. This usually occurred during confiscation of specimens subject to illegal fishing or trade with difficulty in species identification and not limited to CITES-listed species. Also, with lacking in capacity building, chances of CITES national Authorities not prioritising CITES compliance measures leading to lack of cooperation, coordination, and collaboration with other relevant authorities such as the Department of Environment and the Forestry Department and stakeholders.

## 5.1 Recommendation

This research study recommends the following considerations based on the findings and a general way forward for CITES implementation in Tonga.

- Consistent follow-up to gazette the new CITES regulation; hence any revision to it must ensure that the implementing agencies understand its context.
- CITES Management plan development to mainstream all the implementation schemes.
- Capacity-building trainings is essential for Management and Scientific Authority staff to provide confidence, and later dispersing the information to the other agencies and relevant stakeholders.
- Public awareness program for inclusive of community engagement to ensure level of CITES-knowledge is consistently captured and implement accordingly.
- The new CITES regulations will allow fees to be in place for CITES permits; this could contribute to CITES's implementation activities that require financial support, although only a little.
- A review of the CITES permit system and data record of exported species are introduced into a national or regional database for ease of access by the Management Authority.
- CITES implementation in Tonga should be one of the national priorities for relevant CITES authorities to ensure effective collaboration, coordination, and cooperation.
- Tonga Party should expose to the CITES committees' work to gather more knowledge and advance current knowledge and could use that platform to voice out the rest of Oceania.

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## APPENDIX A

### **Research Questionnaire**

#### ***Brief introduction***

This survey undertakes to evaluate the functions of authorities involved in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to enhance the implementation of the Convention in the Ministry of Fisheries, as both CITES Scientific and Management authorities of Tonga. The main field of investigation is the responsibilities and tasks of the Management, Scientific and Enforcement agencies and the individuals who are in one way or another involved in the conservation of wild species of fauna and flora and management of international trade of wild specimens. This study focused on the international trade of marine species and specimens under protection based on the Fisheries Act/Regs. or any relevant policies.

The following questionnaire will require approximately 5 – 10 minutes to complete. Thank you for taking the time to assist me with this research. Under no circumstances are you obliged to answer any of the questions; however, doing so will greatly assist me in completing my research and enhancing my understanding of this research focus. The data collected will remain confidential and used solely for academic purposes.

#### **Client details**

1. Your name (optional) .....  
Division/Position .....
2. Male/Female .....
3. Telephone/email .....
4. Year of the establishment (for exporters) .....
5. Involved in
  - a. Trade (as a private operator)
  - b. Management of trade (preparing permits etc.)
  - c. Quota setting, research and monitoring
  - d. Enforcement (inspection and control)

#### **Section (1); CITES general knowledge.**

1. Before this date, did you know about the existence of CITES?

Circle one:                      Yes     //     No

2. If yes, please indicate the Year when you first heard of CITES  
.....

3. How can you rate your knowledge about CITES? Please circle.

- a) Very low (1-2)
- b) Low (3-4)
- c) Moderate (5-6)
- d) High (7-8)
- e) Very high (9-10)

If possible, based on your rating scale; list what items of CITES do you know about?

4. How did you get to know about CITES?

5. Have you participated in any follow-up training on CITES conducted by the fisheries sector for capacity building (training locally or at appropriate/relevant institutions overseas)?

Circle one:

- a. Yes, elaborate on the training objectives and outcomes.
- b. No

6. Have you participated in workshops contextualizing CITES policies to apply to Tonga?

Circle one:

- a. Yes, elaborate on the workshop objectives and outcomes.
- b. No

**Section (2)**

**a) Trade, Management & Enforcement (for those involved in the protection of wild fauna and flora)**

i. What are some significant setbacks and challenges encountered in law enforcement for CITES-listed species?

- ii. How do you provide mechanisms for practical cooperation, collaboration, coordination and interaction in your role as Management and/or Enforcement authority with other authorized personnel within fisheries inspection schemes?
- ii. What is your view on the conservation and management measures of CITES-listed aquatic species commercially exploited and managed, including the recent listing of sharks and rays?
  - a) Highly Satisfactory
  - b) Satisfactory
  - c) Moderately Satisfactory
  - d) Unsatisfactory

Explain your choice of rate.

**e) Scientific information (for those involved in quota setting, research and monitoring)**

- i. Do you undertake research on marine species' population and diversity? (Both CITES and Non-CITES-listed species?)

Circle one:                      Yes    //    No

If yes, how often? And why?

- ii. Do you provide non-detrimental findings for export monitoring of CITES-listed species?

Circle one:                      Yes    //    No

If yes, please explain what do you know about NDF?

**Section (3): Way-forward and Recommendation**

- i. What are the challenge of implementing CITES?
- ii. Please feel free to provide some additional ideas for possible solutions/recommendations to each challenge stated above.