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**FOOD SECURITY AND SUSTAINABLE DEVELOPMENT:
THE RELATIONSHIPS BETWEEN FOOD SECURITY AND TRADE AND
AGRICULTURAL POLICY IN SAMOA**

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requirements of the degree of Masters of International Development
at Massey University, New Zealand

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ABSTRACT

As the global community continues to face challenges in achieving the United Nations 2030 Development Agenda on Sustainable Development, food security has emerged at the forefront of discussions. International policies aside, the true challenge is at the national level of small island developing states with dwindling local agriculture-based food systems, such as Samoa, struggling with limited resources and import dependency. The government of Samoa has made robust improvements in the agriculture and trade sectors compared to other Pacific Island countries, underpinned by a sector-wide policy approach to development. Guided by sector plans, the agriculture and trade sectors should be thriving however, strengthening Samoa's access to food to ensure a food secure country remains a challenge. Framed around sustainable development thinking, this research explores Samoa's trade and agriculture sector policies and its contribution (or lack thereof) to food security. This report has used qualitative data collection methods, such as a document analysis and semi-structured interviews with key stakeholders of the agriculture and trade sectors in Samoa. Findings highlight the misalignment of Samoa's policies and reveal critical gaps that have resulted in challenges to developing a policy framework for effective implementation. There is a critical need for re-assessment of priorities within the agriculture and trade sectors in the areas of agriculture production and trade if Samoa wishes to address its food security concerns, and in turn, its wider sustainable development objectives.

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LIST OF TERMS AND ACRONYMS

ASP	Agriculture Sector Plan
CBD	Central Business District
ESPO	End of Sector Plan Objectives
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
MAF	Ministry of Agriculture and Fisheries
MFAT	Ministry of Foreign Affairs and Trade
MUHEC	Massey University Code of Ethical Conduct for Research
NCDs	Non-Communicable Diseases
NZD	New Zealand Dollar
NES	National Export Strategy
PIC	Pacific Island Countries
SDG-2	Sustainable Development Goal 2
SDGs	Sustainable Development Goals
SDS	Strategy of Development for Samoa
SIDS	Small Island Developing States
ST	Samoan Tala
SWAP	Sector-Wide Approach
TCM	Trade, Commerce and Manufacturing
UN	United Nations
UNGA	United Nations General Assembly
WTO	World Trade Organization

CHAPTER 1: INTRODUCTION

1.1 The Context and Significance of this Study

Samoa hosted the Third United Nations Small Islands Developing States (SIDS) conference in 2014. One of the critical areas underscored in this meeting was for a more integrated approach to sustainable development. Another objective was to strengthen coordination and partnerships to address the development challenges of SIDS, including ongoing challenges of food insecurity (Barling & Fanzo, 2019). The conference created a call to accelerate action towards healthier levels of food security and nutrition in SIDS as a pivotal contribution to implementing the United Nations 2030 Agenda for Sustainable Development. Specifically, it was aimed at creating an enabling environment for food security and nutrition. In Samoa, trade and agriculture contribute significantly to its Gross Domestic Product (GDP). Yet, their vulnerabilities make it more challenging for Samoa to produce adequate food supplies to meet population demand. Samoan's dependence on food imports makes this country particularly vulnerable to external shocks, such as food prices and supply volatility. Against the backdrop of events that have shaped ongoing discussions on improving global food security, this research report aims at bringing these issues into a Samoan context.

Despite international efforts to alleviate hunger and malnutrition, it is evident that food insecurity remains a significant problem and is subject to threats by global forces. Developing countries are most vulnerable to external shocks and are often affected the most (Candel, 2014). Although SIDS, such as Samoa, can locally produce some of their food for consumption, they still rely heavily on imported food to meet local demand and supplement locally available food. Samoa continues to face extreme challenges with rising food prices, limited local food production, import dependency and distance from major markets (McGregor et al., 2009). Key to addressing many of these challenges lies with ensuring governance structures and policies are strengthened. Good governance to effectively engage and create strategic policy and plans towards strengthening food security in the Pacific region are critical. (Candel, 2014). Cross-cutting into economic, social, environmental, and political spheres, challenges of food security require collective action across

all sectors and, in the context of this research, specific policy action is needed to mainstream food security into national development strategies (Candel, 2014). This research report will critically examine Samoa's trade and agriculture sector plans and explore whether policies adequately address food security. Particularly, access to food and food availability will be explored, as both sectors contribute largely to Samoa's food supply. The difference between access to food and food availability is explained by Bottcher et al. (2020), where access to food means being able to physically reach food, for example by having the ability to produce food for household consumption or having the economic means to purchase food; and food availability means that food is actually available for purchase and consumption regardless of situations and circumstances (Bottcher et al., 2020, p. 3).

The significance of access to food in Samoa draws attention to food availability. In Samoa food is largely available through agricultural production and food from overseas markets – both make up the foundation of Samoa's food system. Agricultural production in Samoa is influenced by land fertility, which is challenged by factors such as climate change. Other challenges are the increasing urbanisation, with housing taking over possible land for production. Also, the loss of agricultural knowledge in communities have decreased local production (Bottcher et al., 2020). With loss of local production, more imported food is purchased. Yet, food trade is influenced by logistical elements and may not be reliable, especially when, as in Samoa's case, a country that is distant from major markets. These challenges are resulting in higher imported food prices (Government of Samoa, 2019). Food system structures in Samoa, are therefore dependent on what food is produced locally and what can be sourced through imports, and to what degree the population is able to produce or purchase food. Samoa has experienced a decline in agricultural food production and instead, imports of food continue to increase significantly. These shifts in local production, and food trade signal a need to understand and highlight food security in Samoa. The next sections will do so by exploring sustainable development, which will later (in Chapter 3) be linked with Samoa's policy space.

1.2 Conceptualizing food security in the context of sustainable development

Food security can be linked to almost all economic sectors as an integral component vital to achieving sustainable development. This section introduces a sustainable development perspective on food security. First, the emergence of sustainable development thinking as part of global discussions will be explained, and how sustainable development has evolved and become embedded within international development frameworks. This section will then focus on food security as crucial element of sustainable development and explain how a focus on access to food can contribute to more understanding within these contexts.

1.2.1 The evolution of sustainable development

Shi et al. (2019) describe the growth and early emergence of the concept of sustainable development approaches as not something new. Contemporary thinking on sustainable development has been traced back by these authors to three crucial periods: the embryonic period before 1972, the molding period from 1972 to 1987, and the developing period since 1987. Figure 1 highlights the main events that have shaped these trajectories of sustainable development, including the United Nations (UN) Development Summit in 2015, resulting in the UN Agenda 2030 and the Sustainable Development Goals.

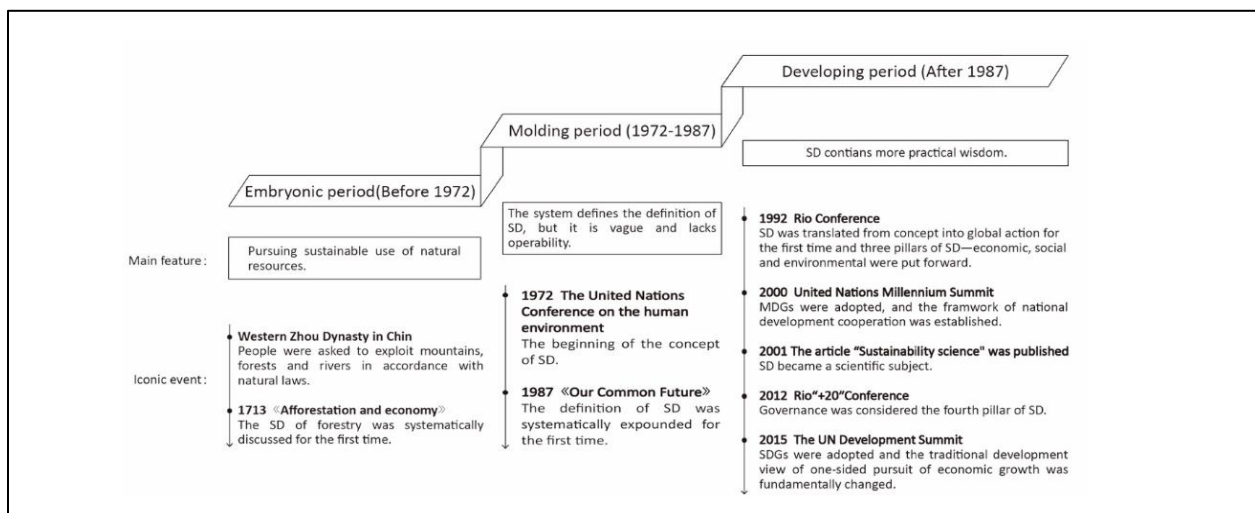


Figure 1: Evolution Stages and Symbolic Events of Sustainable Development Theory

Source: (Shi et al., 2019)

The embryonic period, focused on the sustainable use of natural resources and the realization that with development, the earth's resources are not unlimited (Shi et al., 2019). This realization that resources are limited, led to the adoption of systematic practices and methods that considered the environmental impact of continued unsustainable use of non-renewable resources. Already before the 1970s, in the 18th Century, Thomas R. Malthus pointed out that the world's population would eventually live in poor conditions because food production could not keep up with the world's population growth (Bac, 2008). Malthus already then argued, if society did not take measures to address rapid world population growth rates, the world's non-renewable resources would be depleted (Mensah & Ricart Casadevall, 2019). Malthus also highlighted that depletion of non-renewable resources would be caused by advancements in technology and industrial-led western development. As a result, both increased commodity prices and increased demand for food would make access to food difficult for many (Bac, 2008). Meadows and Meadows (1972) drew on Malthusian ideas and focused on a 'limit to growth' model that assumed population and industrial capital would continue to grow exponentially, but that the supply of food would collapse due to depleting non-renewable resources, and if no action was being taken to address this concern (Meadows & Meadows, 2007).

The 1972 UN Conference on the Human Environment in Stockholm for the first time seriously considered 'sustainable development' as concept and contributed significantly to the beginning of a sustainable development discourse¹. The report of this conference highlighted the importance and recognition of human wellbeing as the focus of economic development, and that development cannot be achieved without considering environmental protection (Shi et al., 2019). Following the UN Conference in Stockholm in 1972, the Brundtland Commission published a report titled *Our Common Future* in 1987 to install links between economic development issues and environmental stability. This Brundtland Report established a definition of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations General Assembly, 1987, p. 16). This definition highlighted two major concepts: (i) the concept of 'needs' with particular reference

¹ The actual term sustainability was already used in 1913, by Carlowitz in the text *Afforestation and Economy*, discussing sustainable forestry to address causes of environmental degradation in farming, logging, and mining (Shi et al., 2019).

to the needs of the world's poor, and (ii) the idea of limitations imposed by countries on technology and social organisations impacting on the environment's ability to meet the needs of the future (Bac, 2008). The links between development and the environment established in the Brundtland Report provided a firm basis for the global community to recognise the significance of environmental protection and the interdependence between the long-term stability of the environment and economic development (Emas, 2015).

A series of international conferences during the 1990s began to refine sustainable development. During the 'Developing Period' (Figure 1), significant shifts in sustainable development thinking were experienced, underpinned by continued emphasis and discussions at the international level. Further, the international community agreed that sustainable development encompassed a broader range of issues that required further clarification and exploration. The key UN conferences that continued these discussions included the 1992 Rio Conference, the 2000 UN Millennium Summit, the 2012 Rio+20 Conference, and the 2015 UN Development Summit. As a consequence of these conferences, countries were mobilised into collective global action to address sustainable development. The shift in thinking now highlights that sustainable development involves "development in a sustainable manner regarding resources and the environment recognising at the same time the global differences between the developed and developing countries" (Shi et al., 2019, p. 6).

Because of the discourses over the last two decades, and significantly since the 2000 Millennium summit, sustainable development thinking shifted from a conversation on environment, towards the inclusion of poverty reduction and alleviation. In 2015, the UN General Assembly adopted an agreement: *Transforming our World: the 2030 Agenda for Sustainable Development*. This UN report in 2015 outlined a set of goals and targets, the Sustainable Development Goals (SDGs), to guide action in pursuit for a better world covering all sectors of global development, including social, economic, and environmental dimensions (Gil et al., 2019). Sustainable development conferences are continuing, with the 8th Sustainable Development virtual conference scheduled for mid-November 2021. Importantly, topics that affect food security, such as climate change, renewable energy, and enabling policies, continue to be at the forefront of sustainable development.

1.2.2 The emergence of food security as a key global concern to sustainable development

As global discussions around sustainable development shifted over the decades, food security has been a critical issue continuing to be at the forefront of sustainable development discussions (United Nations Population Division, 2020). As such, food security has continued to become one of the greatest challenges of our time, exacerbated by climate change, posing significant challenges in the world's ability to producing adequate food for consumption. In addition to climate change, solid economic growth-based policies, such as neoliberal agriculture and trade policies, have been contradictory to efforts towards food security in many regions (Ville et al., 2015). The UN recently identified food systems, the structural chain that take food from production through to consumption (see Chapter 2), as one of the key components that can result in the type of transformative action needed to achieve the SDGs by 2030 (United Nations Population Division, 2020).

From a sustainable development perspective, the fundamental question regarding food security is whether global food and related agriculture and food systems can feed the world's population sustainably. Greater demand for food due to significant global population growth has increased the recognition of food security challenges. These challenges are due to unsustainable production and consumption and to limiting factors such as climate change, conflict, and broader global economic dynamics and impacts (FAO, 2019). As food (in)security continues to be at the forefront of global discussions, related concerns continue to warrant attention (Jayasuria et al., 2013). During 2007-2008 global prices for basic commodities (e.g., cereal, rice, and wheat) doubled, triggering a food crisis. This crisis was driven primarily by a combination of rising oil prices, greater demand for biofuel, and trade shocks to the food market. The global food crisis significantly impacted developing countries in the Asia-Pacific, Latin America, Caribbean, and African states (UN Department of Economic Affairs, 2011). The Minister of Finance in Samoa highlighted that Samoa's budget for 2008-2009 was formulated during challenging times in the world economy, and Samoa is feeling the effects of external shocks of increased fuel prices (Lee-Hang, 2008). Consequently, hunger had become a continuing concern. The Minister said:

The budget for 2008 to 2009 is set against one of the most challenging times in the world economy and indeed for Samoa's economy in the past decade. This year, we are beginning to feel the effects of a challenging global environment. The most obvious of these is the continued increases in the prices of fuel and some basic commodities (Lee-Hang, 2008, p. 2).

In Samoa, the inflation rate rose to 6% in March 2008 from 4.5% in 2007 (Lee-Hang, 2008, p. 2). The budget allocation for this period was the highest budget the government has ever set in over a decade in efforts to absorb some of the external pressures from the increased global prices in fuels and foodstuffs (Lee-Hang, 2008). These impacts faced by Samoa were experienced similarly across other developing states, where the poor were most affected, and the food crisis had driven an estimated 44 million people into poverty (UN Department of Economic Affairs, 2011, p. 61). Since 2008, Samoa continues to face food security challenges in key sectors such as agriculture. Samoa's Minister of Agriculture and Fisheries stated at the UN Food Systems Summit 2021, that border restrictions and disruptions in food supply chains emphasise the importance of sustainable food systems. Fostering resilient food systems and to recognise the importance local food production is called for (Fosi, 2021).

Similarly, at the global level, the adoption of the 2030 Sustainable Development Agenda in 2015 was a historic move towards achieving the world's food security goals, including a specific goal to end hunger. The SDG-2, aims to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture." In achieving SDG-2, the latest report by the Food and Agriculture Organization (FAO) 2021 highlights the need for a transformational approach towards food systems to make nutritional food available and affordable for all. The need for transformation has become the core of global discussions aimed at addressing challenges: ending hunger, food insecurity, and malnutrition as part of the 2030 Sustainable Development Agenda (FAO, 2021). The *Global Nutrition Report* by the FAO in 2021 articulates that to achieve a transformation of food systems towards sufficient nutrition, innovative changes, supported by an enabling environment, institutions, policies, and laws across all sectors of the economy are required (FAO, 2021). This essentially means that a move to address food security requires significant changes across all sectors including policies and laws. Chapter 2 will discuss food systems and their

relationship with food security, and the importance of policy to strengthening food security from a sustainable development perspective, further. The trajectory of sustainable development has identified food security as a critical component. The FAO defines food security as

...everyone having the physical, social and economic ability to always have access to food of enough quantity and nutritional value for them to live a healthy and active life (Bottcher et al., 2020, p. 1).

Further, evidence suggests that places and environments with adequate food accessibility can be linked to better health outcomes and lifestyles, highlighting that access to food plays a significant role in shaping societies from a social and economic perspective (Bottcher et al., 2020). A lack of food availability and access to food are the most immediate threat to food security (Stephen, 2001). As explained earlier, Samoa is experiencing significant changes in the area of food security with increasing vulnerabilities in the country (see Chapter 3). This research report will address these issues and explore the role of policy in the sectors.

1.3 Research aim and questions

The **aim** of this study is to explore the role of trade and agriculture policies on food security in Samoa. The discussion throughout this research draws from existing, relevant literature within the scope of food accessibility, availability, and policy. This research report has used a qualitative methodology (see Chapter. 4) and draws on a document analysis and semi-structured interviews (see Chapter. 5). There are two research questions:

Research Question 1. What are the relationships between food security and trade and agricultural policies in Samoa?

- Explain how access to food is one of the key issues of food security
- Describe how trade and agricultural policies are affecting food systems in Samoa
- Explore how government policies impact food security

Research Question 2. What are the main issues surrounding access to food in Samoa?

- Identify the different components of sustainable access to food

- Explore the options and challenges of Samoans being able to access food
- Analyse the existing discourse in trade and agricultural policies that have impacted food availability in Samoa

1.4 Personal reflection on this topic

Inspired by my current role as a public servant working within foreign affairs and trade policy and based at the Samoa Embassy in Japan, food security from a trade and agriculture perspective is an area that has received limited attention in Samoa. In my experience as a Foreign Service Officer working in the international trade policy space for over ten years, food security and access and availability of food were never at the forefront of discussions, nor a primary objective within the trade sector or agriculture sector policy approach. A disconnection exists somewhere within the trade and agriculture sector policies that requires further exploration. Both sectors have a significant impact on shaping food security in Samoa, providing the initial basis for this research's core aim. As a SIDS, Samoa struggles with many development-related challenges. A key to the sustained livelihoods of Samoans is ensuring and maintaining food security, and specifically, food access and availability because of current trends of declining food production and unpredictable imports. These issues resonate closely with me; with two young daughters, I am compelled to think about their futures and their generation. Food security will be the core issue of sustaining their livelihoods in the future.

1.5 Chapter outline

Chapter 1 has set the scene, with a context and conceptual framing. Chapter 2 will continue the literature review on sustainability, food systems, governance, and policy frameworks. Chapter 3 will explain a detailed contextual analysis about Samoa's food security challenges and existing food systems. Chapter 4 outlines the research design, qualitative methodology and methods used. Results of the data analysis are placed in Chapter 5. Lastly, Chapter 6 offers a discussion and conclusion.

CHAPTER 2: CHANGING FOOD SYSTEMS AND SHIFTS IN APPROACHES TO FOOD SECURITY

2.1 Introduction

This chapter explores the literature on food security focusing on food systems and their impact on access to food and food availability. Further, the chapter will explore food security and sustainable development within the context of the Pacific region and Samoa, focusing on trade and agriculture policies. It will then analyse the role of governance structures in strengthening food security. This chapter aims to build on conceptualizing food security discussed in Chapter 1 by highlighting key relationships and intersections between food security, food systems and governance framed around sustainable development.

2.2 How food security is impacted by changing food systems

A number of shifts in conceptualizing sustainable development (as explained in Chapter 1) has resulted in the emergence of food security as an integral part of sustainable development. When exploring food security from this perspective, it is important to understand how food systems influence food security. The Global Sustainable Development Report 2019 highlighted food systems transformations as a key accelerator to achieving the 2030 Agenda for Sustainable Development (Guijt et al., 2021). This section will therefore explore food security in more depth within the context of the changing food systems and the trends that impact a society's approach to food. This section also discusses the relationship between food systems and food security, the role and impacts that food production and trade have on food systems, and how these elements enable access to food.

2.2.1 The relationship between food systems and food security

The evolution of sustainable development thinking and approaches since 1972, as explained in Chapter 1, highlighted a continued trend in unsustainable food and agricultural systems, and practices and the realization that these systems are no longer feasible if we wish to be sustainably food secure in the future (United Nations Population Division, 2020). Specifically,

the conceptual framework around sustainable development, encompasses different systems: food systems, health systems, economic systems, and environmental systems. This section focuses specifically on food systems and its linkages to food security (Ray-Yu & Hanson, 2009). Food systems encompass a range of actors and is inter-linked with activities that include production, processing, distribution, and disposal of food products, usually from agriculture and fisheries, embedded within the broader economic, social and environmental pillars of development (Nguyen, 2018). Food systems can be complex and play an important role in ensuring a vibrant and healthy population through the adequate supply of nutritious food, while ensuring food safety for consumption. Further the correlation between food security and food systems also influences consumer dietary patterns and food consumption. Over time, food security has also become a key concern within the areas of economic and social development, globalisation, urbanisation and climate change (Bottcher et al., 2020). A food system is composed of sub-systems that include farming systems, waste systems and supply systems, each interacting with other key systems, such as energy, trade, health and policy. Therefore, a significant shift in food systems can originally be caused by a change in other systems. For example, a policy promoting biofuel in energy systems can have significant impacts on food systems as generating bio-fuel reduces food supply (Nguyen, 2018).

Food systems dictate what type of food is grown and the pathways that food travels, from farms to markets. They ultimately impact on individuals' and communities' access to food and what type of food is available for consumption. Any changes in food systems impact other cross-cutting areas closely connected to consumption, production, nutrition, and even dietary preferences (Bottcher et al., 2020). Sustainable food systems are core elements of the SDGs, calling for major transformations in agriculture and food systems in order to end hunger and achieve food security. and the need to be environmental sustainable and more inclusive of the marginalized poor (Nguyen, 2018). However, the required changes in food systems are complex and need integrated and collaborative efforts at the international, regional and national levels, especially in SIDS (Guijt et al., 2021).

Pacific Island Countries (PICs), like Samoa, face common challenges in relation to food systems and as a result, these countries continue to face significant food related challenges. Many

are not on track to achieving their targets under the SDGs, namely SDG-2, to end hunger (Secretariat of the Pacific Community, 2021). Pacific food systems consist of traditional starchy root crops, fish, coconut and livestock and largely built around subsistence agriculture production. Fisheries resources are limited. The growing urbanisation has created long term food challenges (Secretariat of the Pacific Community, 2021). Pacific food systems have experienced significant shifts towards a westernized approaches brought about by a cash economy, raising concerns (Campbell, 2015). As PICs experience these dramatic changes in people's approaches to food, traditional diets and localized food systems have declined. Declining localized food systems have been replaced by an increase in demand for imported foods such as processed meats, refined cereals and grains, oils and sugary beverages (Charlton et al., 2016). Campbell (2015) argues that the shifts in food systems in the Pacific was a contributing factor to the decline in traditional barter systems and in effect, local subsistence production. The introduction of commercial cash crops, such as copra, meant less production of other staple crops such as taro and bananas, and did not accommodate for the continuing population growth (Campbell, 2015). McGregor et al. (2009) also support Campbell's (2015) argument on the impacts of shifts in food systems on agricultural diversification due to the diversion of production towards a more commercial focus.

2.2.2 Access to safe and nutritious food

Access to adequate nutritious food emerges as a key aspect of food security as dietary patterns change from traditional to modern diets and is crucial to achieving sustainable food systems. Food systems play an important role in population health through nutritional quality, ensuring food safety for consumption (Bottcher et al., 2020). A key objective of achieving sustainable food systems is ensuring improved availability and access to safe and nutritious food to reduce hunger. (FAO, 2018). Trade systems have created food environments that have led to negative health impacts in the Pacific contributing to high rates of Non-Communicable Diseases (NCDs) in PICs. The increased dependency on food in SIDS, has allowed for the influx of highly processed, and low nutritious food that can cause obesity, heart disease, cancer and other illnesses ('Ofa & Gani, 2017). The increased access to less nutritious food through imports has shifted consumption patterns and diet and as a result, there is more consumption of foods with high contents of sugar, salt and fats consumed in large quantities ('Ofa & Gani,

2017). The structures of food systems and food accessibility have a direct impact on population health and cause of NCDs due to availability of unhealthy food alternatives. Studies have shown the correlation between unhealthy diets and NCDs accounting for 70% in total deaths in certain parts of the Pacific (‘Ofa & Gani, 2017, p. 820).

The NCD situation in the Pacific region indicates that Pacific people are not making nutritional food choices and many do not have access to nutritional food options as current food systems are failing to produce food that’s nutritious, affordable and sustainable with more focus on feeding people rather than nourishing them (Conn et al., 2019, p. 14). The failure of current food systems to produce nutritious food are underpinned by economic gain rather than concerns over health and sustainability. The increased importation of food originates from the lack of local supply of food to meet the growing demand, due to rapid population growth in the Pacific that are also experiencing some of the highest urbanisation rates in the world (Conn et al., 2019). The FAO (2021) highlighted that the unaffordability of healthy diets is a result of factors impacting disposable income and the cost of nutritional food available in current food systems and impacts on food security and nutrition (FAO, 2021). In 2020, almost all low and middle income countries including many of the PICs affected by global economic shocks saw a rise in malnutrition and unaffordability of nutritious food, linked to severe forms of food insecurity (FAO, 2021, p. 20). The connections between trade and health are significant. Food systems exist today with trade being an enabling mechanism for communities to access food. However, a critical impact is the influx of unhealthy food alternatives. When discussing access to food emphasis on safe and nutritious food is essential to achieving sustainable food systems (Nguyen, 2018). In doing so, certain policy frameworks and governance structures need to be in place to facilitate accessing safe and nutritious food, which will be explained in the following section.

2.3 Governance and policy frameworks to strengthen food security

Governance has emerged as the fourth dimension of sustainable development and regarded as an essential enabling element in achieving the SDGs (Glass & Newig, 2019). At the backdrop and context of traditional food security trends and recognising approaches to

food security today, a clear framework supported by policies at the national level addressing food security concerns is crucial (Candel, 2014). This section will explore the governance and policy elements that require consideration as the facilitative and enabling mechanism that can support food accessibility and availability and contribute to establishing and strengthening food systems in general. Specifically, this section will look at: (i) policy and governance as key drivers to achieving food security; (ii) the significance of trade and tariffs on contemporary food systems and (iii) fostering food accessibility through promotion of agricultural production for consumption.

2.3.1 Policy and governance frameworks are key drivers to achieve food security

From a sustainable development perspective, governance is considered an essential driving tool to achieving development, and the role of governance has also come to the forefront with increased global debates on food security, (Candel, 2014). As solutions are sought globally on how to achieve food security, communities have realized that achieving food security requires solid, inclusive strategic policies that incorporate all factions of society – including government and non-state actors, such as business communities and civil societies (Glass & Newig, 2019). Solid governance structures need to be in place to ensure stable access to food and sufficient food production. In PICs, like Samoa, governance structures in the form of policies and institutional capacities are key elements that require critical and strategic formulation and targeted actions to address current food security concerns (Connell et al., 2020). Further, Boyd and Wang (2011) support the significance of governance structures and explain that strategic governance can be the solution to today's food security problems. Poor or non-existent governance structures can result in food insecurity (Boyd & Wang, 2011). This argument also suggests that the lack of institutional capacity, policy design and inadequate implementation can cause serious problems in the production and distribution of nutritious food for those that need it most.

Assessing different approaches to food security is complex and requires a sophisticated framework involving all stakeholders from public, private and civil societies. The lack of effectively placed mechanisms underpinned by limited data and lack of appropriate structures

for effective implementation of appropriate measures are causing ineffective policy implementation at national levels (Candel, 2014). In the context of SIDS, there is value in all stakeholders collectively formulating relevant food security related policy (Candel, 2014). Glass et al. (2019) highlight the importance of governance to reflect participation of a wide group of stakeholders in policy formulation and implementation to yield more inclusive and effective results. Multi-stakeholder ownership of implementation is also needed to foster resource sharing (Glass & Newig, 2019). An overlap in sector mandates and failing to establish cross-sectoral linkages is often a scenario experienced in many SIDS. Trade sector priorities need to align and link to agriculture, health and infrastructure sectors for a coordinated policy approach by all stakeholders, towards food security (McKeon, 2011). Further, interventions towards addressing food security challenges must be done so through specific policies in order to strengthen food security, and must be supported by appropriate institutional structures to drive the implementation of targeted actions towards strengthening food security (McGregor et al., 2009).

2.3.2 The significance of trade on current food systems

The shifts in food systems coupled with a decline in traditional diets in many PIC communities has resulted in increased demand for imported food alternatives outside the traditional food spectrum (Otero et al., 2013). The Rome Declaration on Nutrition in 2014 called for trade policies to be more conducive to fostering food security and nutrition for all. Trade policy is also included as part of the SDG framework with a general agreement that trade liberalization or the freeing up of trade markets increases food availability and stabilizes domestic food prices (Zakaria et al., 2016). Trade liberalization or the reduction or removal of import taxes, have been successful elements of the neoliberal reforms since the 1980s. Food security was a factor to liberalize trade mainly focused on agricultural products (Otero et al., 2013). This neoliberal approach to achieving food security through trade has raised questions about the impact that tariff removal on food products has had on food import dependent countries. Also questioned is, whether tariff removal helped or worsened the situation of food security, especially in developing countries that have experienced significant shifts in food systems as a result of increased imports of food products (Otero et al., 2013).

Neoliberal approaches also argue that trade liberalization increases export earnings for countries by exporting goods that they are competitive in producing and use the export earnings to import food products to increase availability. The argument is that trade liberalization is a key aspect that can lead to economic development and increased income for marginalized and poor demographics (Zakaria et al., 2016). However, economic growth through trade liberalization does not necessarily improve food security or increase access to food and availability of food by those that need it. Trade liberalization can also lead to unequal distribution, leaving those that face food insecurity worse off (Zakaria et al., 2016). Lenchucha and Thow (2019) explained that neoliberal principles of structural adjustments saw rise in policies promoting trade liberalization, privatization and opening up of markets with a focus more on economic growth policies, rather than social policies that could enhance social welfare and elevate standards of living (Lenchucha & Thow, 2019). Also, global reforms to free trade, tariffs and taxes at the border still act as a restrictive measure on food imports in many countries.

Herath et al. (2014) argue that trade policy in the form of trade liberalization generate positive impacts on the agriculture sector for many developing countries. Trade liberalization on inputs for agriculture production is a vital aspect when discussing food security from an agriculture and food production perspective (Liang et al., 2014). Trade liberalization can impact agricultural commodity prices and trade volumes. It can influence the food system structures of countries that undergo trade reforms (Liang et al., 2014). Trade policy is therefore a key driver of how food systems are shaped, especially in developing countries where food imports are a crucial part in supplementing locally produced food. Local food production is often low when there are global shifts in agriculture production systems. Trade policy therefore is linked very closely to agricultural policies as they together shape local food systems. (Secretariat of the Pacific Community, 2021).

2.3.3 Agriculture policy to foster food production for consumption

The nature of food systems, as established earlier in the Pacific context focuses largely on local food production. As a result, agricultural policy to support food production, is also

crucial in addressing food security (Bottcher et al., 2020). Food systems in the Pacific is a process from agricultural production to plate to successfully achieve sustainable food security. (Honey, 2020). Ensuring that there is enough food for an expanding global population continues to remain a challenge. Agricultural production is a key component of food security as it produces food that provides the primary source of livelihood for about 40-50% of the Asia-Pacific workforce (FAO, 2018, p. 7). While agriculture is a significant contributor to food security, the majority of the current systems are unsustainable and rely heavily on non-renewal inputs. Global agriculture practices also produce greenhouse gas emissions and have a negative impact on soil and animal welfare, causing ongoing concerns on the ability to produce food in the future (Kopainsky et al., 2018).

To improve food security through increased productivity in the agricultural sector with unsustainable methods practiced presents further challenges from a sustainability perspective (McGregor et al., 2009). The pressure on resources, land and general infrastructure are limiting factors that hinder food production (Honey, 2020). The increasing demand for food is exacerbated by the decline in rural subsistence agriculture production and with ongoing urbanisation and globalisation the demand for proteins, fruits and vegetables also increases. Many of these products are imported as developing countries rely more on imported food (Honey, 2020). As such, Iese et al. (2021) argue that to strengthen food security in developing communities, appropriate food systems must be supported by robust agricultural policies to facilitate and support agricultural production (Iese et al., 2021).

2.4 Chapter Conclusion

Food security remains at the core of sustainable development debates and discussions as a key transformative catalyst for achieving the SDGs. Sustainable food systems are at the core of many of the SDGs and the international community recognises its key role to achieving the global economic, social and environmental development pursuits. Key to these changes is recognising the shifts in food systems and how these shifts are influenced by changes in other sectors. In this chapter it was recognised that current food systems and practices cannot continue if we wish to have stable, sustainable food supply. The importance of what can impact

food systems can be key to creating real actions to strengthening food security that is sustainable for future generations. To achieve the SDG-2 and contribute significantly to the other 17 SDGs, governance structures and mechanisms need to be in place to create an enabling environment to foster sustainable food security and formulate stable food systems supported by policy makers.

CHAPTER 3: SAMOAS HISTORY AND APPROACHES TO FOOD



Figure 2: Map of Samoa

Source: <https://www.worldometers.info/maps/samoa-map/>

3.1 Introduction

This chapter focuses on Samoa and its traditional and contemporary approaches to food. This chapter will draw on literature from relevant experiences throughout the wider Pacific region, reviewing similar elements, relevant to the context of Samoa. In exploring Samoa’s food related approaches, it is useful to revisit Samoa’s history, which provides key insight into how traditional food systems have evolved up until Samoa became independent in 1962 and how food systems structures exist today. This chapter will explore further the significant shifts that have occurred in Samoa’s food systems. The cultural elements, traditions and customs also add valuable context when exploring food systems in Samoa and how these feature within communities given the significance of food in traditional Samoan cultural practices. This literature review will provide an important foundation for discussions on local food security in the context of agricultural

production, and will explore the challenges of globalisation and the links to the sustainability of food systems in Samoa.

3.2 Country overview of Samoa

This section will briefly provide general information on Samoa, its geography, people and history and will provide context on food security in Samoa. This section explores, (i) the geographic nature of Samoa, (ii) the cultural history and people of Samoa and (iii) overview of Samoa's economy and links to food production.

3.2.1 Geography

Samoa (see Figure 2), is comprised of twelve volcanic islands, of which four are inhabited, located in the South Pacific about halfway between Hawaii and New Zealand (Central Intelligence Agency, 2020). These islands span just 2,800 square kilometres and are covered by natural tropical forests and rivers, rugged mountain ranges, and beaches along its coral reef coastlines (Samoa Tourism Authority, 2020). The two main islands of Upolu and Savai'i make up 95% of Samoa's total land area with the capital city of Apia located in Upolu (Government of Samoa, 2010, p. 2). Samoa has a warm and tropical climate temperatures ranging from 23 to 30° Celcius (Government of Samoa, 2010, p. 2); (Theuns, 2014). Samoa's location in the south Pacific is prone to cyclones and other natural disasters with Samoa experiencing severe devastating cyclones and other natural disasters (January to March) occurring more frequently over the past decades (Theuns, 2014). Samoa has the smallest Exclusive Economic Zone (EEZ) in the Pacific of just 120,000sq km (Fensterseifer, 2008, p. 14). Food production challenges are common in places that are disadvantaged by geography (Connell et al., 2020), and therefore Samoa is vulnerable to some of impacts and disadvantages that exist due to its geographical location and characteristics of the islands.

3.2.2 The People, History and Culture

To understand Samoan's food security situation, it is worth looking at the context of Samoan people and the colonial history and culture. Samoa's population is approximately 200,000, with about 75% living in small villages scattered around the coast of Upolu island (Central

Intelligence Agency, 2020). Once a colony governed by Germany after during the first World War, and from 1918 under New Zealand administration, Samoa became the first country in the Pacific to gain independence in 1962 (Government of Samoa, 2010). During colonial times and under western influence Samoans experienced shifts in their approaches to produce and consume food. Inevitably, food production has experienced the introduction of semi-commercial agriculture production alongside subsistence farming (Fensterseifer, 2008).

In Samoa, food plays a significant role in its culture and traditions. Samoan culture is embedded in 'Fa'a Samoa' or the Samoan way, made up of 'matai' (chiefs), 'aiga' (extended family) and interwoven with elements of Christianity. Churches make up a significant part of the Samoan cultural practices and traditions (Samoa Tourism Authority, 2020). The 'matai' is the head of the extended family or 'aiga' and their responsibility is to serve and look after the welfare of the extended family and each 'matai' title is passed down through the generations as a traditional structure to care and protect the family as well as represent the family interests in the village setting (Tuvale, 1968). These cultural elements and traditions are based on family oriented values and beliefs, and are significant when discussing Samoa's approaches to food, especially in the context of subsistence farming and cultural approaches to food distribution amongst families and communities. Culture is important to understand how it shapes the overall structures of the food systems that exist in Samoa (Connell et al., 2020).

Equally as important, areas of governance and the political landscape in Samoa are important to further understanding food systems and how the government approaches food security. Samoa has a reputation in the Pacific for political stability whilst undertaking several economic, social and political reforms since its independence specifically in areas of trade and promotion of semi-commercial agriculture (Iati, 2013). A unique feature of Samoan governance is the role that local governments play, having responsibility over 360 local villages within eleven districts. Each family is represented by their designated 'matai' or chiefs, which form the village council and administer local village affairs. In many cases, matai oversee communally owned land largely used for subsistence agriculture production (Foster, 2021).

3.2.3 The economy and links to food production

The stability of Samoa's political and traditional systems had provided a solid framework and foundation for the country's economic drive for development (Holtz, 2013). Samoa's economy has progressed significantly since its independence in 1962 with growth in key pillar sectors of agriculture, tourism and trade in services. However, these sectors remain constrained with limited resources and small scale output (Fensterseifer, 2008). Also contributed to support the Samoan economy are remittances sent to families as a result of increased migration of Samoans overseas, mostly to New Zealand, Australia and the United States. Remittances play an important role in sustaining the economy. These are strong additions to assistance through foreign aid that has enabled development efforts by the Government (Government of Samoa, 2010). Total remittances amounted to around ST\$345 million from 2011-2016 which is about 20% of Samoa's GDP (Government of Samoa, 2017, p. 15).

The Samoan economy between the 1980's and 1990's was based largely on subsistence agriculture and fisheries with limited exports of a few cash crops (cocoa, copra, taro, banana), which until the 1990's accounted for over 50% of Samoa's GDP at the time (Government of Samoa, 2017, p. 14). Samoa has since struggled to diversify its economy, which was largely driven by these traditional primary sectors (Fensterseifer, 2008; Holtz, 2013). The continued instability of the agricultural production have resulted in a steady decline over the years (Fensterseifer, 2008). This was mainly due to strict biosecurity measures for agriculture exports, pests and diseases on crops as well as the devastating impact of natural disasters on crops, which can take many years to fully recover (Fensterseifer, 2008). Today, agriculture remain a significant part of Samoa's development and its efforts to improving livelihoods of all Samoans, especially through food production. Agriculture is a key economic sector supporting the overall growth of the Samoan economy contributing to the development of the rural communities (Government of Samoa, 2010).

3.3 Local food security

Subsistence production of staple food crops is an important aspect of maintaining food security and in Samoa, agriculture production plays a prominent role in ensuring local food availability. This section will explore the role of agriculture in the context of Samoa, it's food

system structures; the impact of climate change; and challenges in local food production. It is important to explore the trajectory of food systems in Samoa linking to key points in history as well as highlighting the multi-dimensional elements that emerge as part of the discussion on food security.

3.3.1 The role of agriculture and fisheries in food production

Samoa continues to place a great deal of importance on agriculture as key to the development of Samoa's economy (Government of Samoa, 2010). Traditionally, Samoans utilise land to grow staple food for family and community. Subsistence production in Samoa is characteristically mixed with coconut, cocoa, breadfruit, bananas with taro and yam as key root crops which make up around ninety-five percent of what is being grown on arable land (Fensterseifer, 2008, p. 15). Over 75% of households in Samoa engage in various levels of agriculture production mainly for subsistence purposes. (SBS Samoa, 2012, p. 25). Similarly, fisheries also plays an important role in food production for Samoans, focused mostly on subsistence with households engaging in fishing activity for personal consumption. These activities are vital to the livelihoods of rural communities for consumption and as means for generating income (Tiitii et al., 2014).

Although the domestic market is small, there is a steady increase in demand for these agricultural crops: fish as well as fruit and vegetables. The demand for crops is driven by demands from the tourism and hospitality sectors as well as the export market opportunities in neighbouring markets in New Zealand, Australia and American Samoa (Government of Samoa, 2010). There remains a strong drive for the Government of Samoa to continue to invest in agricultural development as it is seen as the most affective sector to address other development issues such as poverty (Government of Samoa, 2010).

3.3.2 Climate Change and Food Security

Climate change poses several risks to food security in Samoa and many other countries in the Pacific both in rural and urban areas, and to individuals and village communities (Barnett, 2011). A rise in temperatures, sea levels and rainfall in the Pacific region can have a significant

impact on agricultural production and ecosystems (Barnett, 2011). Associated to the rising changes in extreme weather patterns can cause widespread drought and food shortages in the Pacific region (Barnett, 2011). Climate change threatens the capacity of communities and countries to produce adequate food, especially in small island developing states, often characterised as being the most vulnerable and susceptible to impacts of climate change in the Pacific region (Medina-Hidalgo et al., 2020). A recent study by Medina Hidalgo et al. (2020) in Fiji highlights the linkages between extreme weather patterns with food production and availability noting that food systems were often impacted by tropical cyclones, drought and prolonged periods of heavy rain. These weather phenomena have a significant impact on productivity in the affected areas. The authors noted further, that extreme weather conditions, like tropical cyclones, can also have an impact on access to store bought food as trade links are disrupted both internationally and domestically impacting those that are furthest away from main town areas and CBD (Medina-Hidalgo et al., 2020). The possibility of increased frequency and intensity of weather events like tropical cyclones and storm surges poses significant threat to food systems and their ability to recover resulting in long-term food shortages impacting agriculture, fisheries, health, economic development and social challenges (Barnett, 2011).

Agricultural production can be adversely impacted by climate change in several ways. In Samoa where villages are mostly scattered in and around coastal areas, effects of soil erosion, contamination of water sources by salt water, tropical cyclones and drought brought about by heat can undermine food productivity in these communities (Barnett, 2011). Tropical cyclones can cause a significant loss in agricultural production with cyclone Val in 1991 damaging over 80% of agriculture crops highlighting the importance of subsistence and small agriculture food systems for food security in the Pacific (Government of Samoa, 2013, p. 11; McGregor et al., 2009). Droughts can result in lack of irrigation key for watering crops, whereas increased rainfall can cause flooding that damages crops and impacts soil fertility (Barnett, 2011). Climate change presents additional challenges and limitations on agricultural productivity and coastal fisheries. Climate change poses a significant threat to Pacific food systems with sea level rise, changes in rainfall and ocean temperatures, and increased frequency of extreme weather events that can impact Pacific ecosystems, water resources, agriculture production and fisheries. Extreme weather events can damage critical structures in food system value chains limiting food production within

these systems. The Pacific region is at the forefront of climate change impacts and as a result faces unprecedented food security challenges and the ability of people to have access to adequate, safe and nutritious food (Barnett, 2011).

3.3.3 Issues impacting agricultural food production in Samoa

Agricultural crops have over the past decades become prone to pests and plant diseases as well as frequently occurring cyclones that are devastating to agricultural crops especially in the rural communities where these crops are the main food sources for many families (Government of Samoa, 2016b). The impact of two severe cyclones in Samoa between 1990-1991 had a significant impact on Samoa's economy as the country struggled to rebuild in the aftermath. The agriculture sector was almost completely wiped out as a result (Fensterseifer, 2008). Similar to PICs, Samoa's subsistence farming is declining, as the population has become more urbanised and agricultural work offers little incentive and is considered less attractive (Connell, 2015). The strong rural-urban migration to Apia, has resulted in a shortage of workers in the sector with communities already facing challenges such as accessing water and land for agricultural production (Government of Samoa, 2016b). Another problem is that the abled youth find subsistence activities or employment in the agriculture sector labour intensive and unattractive. (Connell, 2015). The subsistence economy is being replaced by a cash and wage economy, resulting in loss of workers as a consequence of migration, and communities consuming more store bought food (Connell et al., 2020).

The increase in imports of food substitutes has caused higher consumptions of store bought foods like rice, flour, bread and other staple food substitutes instead of locally grown food (Connell, 2015). "European" food is seen to symbolise status and wealth, and imported food especially has become staples in many households over the years (Connell, 2015). Import dependent communities become extremely vulnerable as a result of uncertainty in trade logistics and sudden fluctuations in global prices of food. (Allen, 2015). Traditional systems are also no longer important elements of exchange systems, which were usually done with agricultural products. These local systems have lost their importance and value and imported substitutes have become a disincentive for local agricultural production and has changed Samoa's approach to food completely. (Campbell, 2015).

3.4 Approaches and challenges to food security in Samoa

Significant changes have been experienced globally in the ways food system structures were shaped. In Samoa, the trajectory in which these shifts in food systems have evolved from a traditional subsistence and surplus food production to a modern system influenced by trade and commerce, warrants a discussion on how historical events influenced these changes. This section examines how these events have shaped the way food systems have evolved.

3.4.1 Food systems and Samoa's approaches to food

The Samoan diet has consisted of traditional staples of starchy food including root crops such as taro, yams, sweet potato, casava and bananas (Melby, 2011). These starches are considered the cornerstone of meals often eaten together with meat, fish or other seafood and while traditional foods were not as diverse as we see today, they were relatively healthy providing necessary nutrients and vitamins (Melby, 2011). Food insecurity was not common, although there were disruptions of food supply during times of cyclones, disease or famine (Melby, 2011). Shifts in the traditional Samoan diet began in mid-twentieth century with colonisation and changes in governance in the Pacific, opening up trade in the region and enabling the availability of a much wider variety of food sources such as rice, flour, and potatoes (Secretariat of the Pacific Community, 1999). These imported products are highly processed with little nutritional value. As a result, a dependency on imported food, poor nutrition, health concerns and food insecurity have become issues in urban communities that rely on imported food (Fa'alili-Fidow et al., 2014). Despite their dependency on imported food, traditional staple foods remain an important part of life in Samoa. Traditional food products are seen as not only a means of sustenance, but it also plays a social and cultural role in Samoa (Campbell, 2015; Secretariat of the Pacific Community, 1999). The exchange and gifting of traditional foods like taro, yams and bananas accompanied by suckling pig, cow carcasses, and chickens, are important in maintaining cultural and social relationships within families and village communities (Campbell, 2015).

A key feature of traditional food systems in the Pacific and similar to that of Samoa, was the production of agricultural food surpluses, whereby surplus grown in subsistence enabled

cultural and ceremonial feasting and traditional practices and provided for times of food shortages (Campbell, 2015). In many PICs, including Samoa, it is customary for families and entire villages to share its first harvest and the best yield with church pastors, high chiefs and elders of the family as a sign of respect and acknowledgement (Barling & Fanzo, 2019; Campbell, 2015). Farmers are often accorded high regard for having larger plantations of high-quality yields and can often be associated with hard work. They in turn, receive high accord and respect by communities (Secretariat of the Pacific Community, 1999). Samoa's food approaches may be considered a mix of both traditional and western both of which continue to face challenges in ensuring adequate food is available for its people (Campbell, 2015).

3.4.2 Multidimensional issues impacting food security in Samoa

Food production is only one dimension of food security - a situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary and food preferences for an active and healthy life' (FAO, 2008, p. 3). As was explained earlier, food security has three components: food availability, ability to access food and the ability to utilise food. Food security issues overlap with the economic, social and environmental aspects of development and is multidimensional by nature. It is linked to key sectors of the economy impacting food production, economic growth and employment, poverty and health in communities. Therefore, a multidimensional discussion and approach to addressing food security concerns is critical (Barnett, 2011). Due to the significance of agriculture in food production, the sector must be guided by relevant policies to support and enable communities to increase food production for consumption (Fa'alili-Fidow et al., 2014). Local agricultural production cannot meet the growing demand for food. Therefore, the trade sector is supplementing the supply of food through imports to enable adequate access (Fa'alili-Fidow et al., 2014).

Trade is viewed as a key sector to drive development especially for a country like Samoa with long term aspirations to reduce poverty through sustainable economic development. This trade based development can only be successful through ensuring that local production shortages are supported by imported food products (Fa'alili-Fidow et al., 2014). In pursuing and generating trade opportunities to assist in a country's aspirations for economic development, there is often conflicting priorities especially from a health perspective on imported foods that are high in salt,

sugar and fat content (Fa'alili-Fidow et al., 2014). In the case of Samoa, promotion of trade to enable access to food and to address food security concerns can have a negative impact from the health sector perspective as trade had led to increased imports of unhealthy foods linked to causing non-communicable diseases, which is a rising concern in Samoa (Fa'alili-Fidow et al., 2014).

3.5 Chapter Conclusion

As a SIDS, Samoa's has a very deep history of colonialism embedded with a rich culture and traditions. The history of Samoa illustrates the resilience of its people. Its geographical characteristics illustrate a unique tropical paradise, but within it, communities and people face several development challenges. Due to similarities in geography and characteristics, the food approaches in the Pacific including Samoa are similar in context. In exploring the literature, significant shifts in food systems and approaches to food could be identified. Samoa and PICs historically had a stable food supply with prominent subsistence farming structures. Yet, the current situation indicates that constraints are threatening the country's food security as a result. Climate change impacts on food systems are also significant in Samoa. The multidimensionality of food security brings to the forefront discussions on key sectors of the economy with links to production, poverty, economic growth, and health. The declining agricultural industries in Samoa, coupled with influences brought about by western economic systems, signals weakened social structures underpinned by shifts in food approaches by the local people. Approaching food security by enhancing the agriculture sector, have the most potential in enabling food availability and access to food that is adequate, healthy, and nutritious.

CHAPTER 4: METHODOLOGY AND RESEARCH DESIGN

4.1 Introduction

This chapter explores the research design and methodology by outlining the key principles and methods undertaken in conducting this research. In the context of food security, the outlined methodology in this chapter was the guiding framework for conducting this research project. This chapter explains the principles of qualitative methodology in the context of this research and its significance in the overall research design. It explains two types of data collection methods that were undertaken in obtaining data as part of this research project. Further, it highlights positionality of the researcher and the ethical standards as outlined in the Massey University Code of Ethical Conduct for Research (MUHEC).

4.1.1 Qualitative Methodology

A qualitative approach to research relies significantly on qualitative data such as words, text, images, experiences and observations. According to O'Leary (2017), a qualitative approach “involves inductive and deductive logic, appreciated subjectiveness, accepts multiple perspectives and realities and recognises the power over participants and researchers” (O'Leary, 2017, p. 142). The aim of this research was to explore the relationship between food security and trade and agricultural policies in Samoa and a qualitative methodological approach was the most suitable to understand the issues with some depth. The aim of this research relies on participant experiences and observations, and their expertise in the sectors. Addressing food security challenges and access to food were explored from different perspectives. A qualitative approach is crucial to understanding the complexities, interactions, processes that are part of institutions and individuals (O'Leary, 2017). Qualitative research tends to be concerned with meanings and is interested in how people make sense of the world and experience events and are therefore concerned with the quality of experience rather than the cause and effect relationships (Wilig, 2008, p. 15).

Qualitative research uses a wide range of interconnected practices and methods hoping to achieve better understanding of the subject matter, and how different practices reveal different perspectives. Denzin and Lincoln (2011) explain that it is ideal to use more than one interpretive

practice when undertaking qualitative research (Denzin & Lincoln, 2011). Therefore, the specific methods that were used to gain this understanding and receive contextualized data and information in response to the research questions were semi-structured interviews and a content document analysis (Hennink et al., 2010). In the context of exploring the role and relationship between food security and trade and agricultural policy, it was suitable and useful to apply a qualitative methodology, as it allowed gaining understanding and context of behaviors, beliefs and peoples experiences in relation to food security within the context of policy.

4.2 Methods

A qualitative approach requires methods of collecting data that need to be participant led. They need to be flexible and open ended to facilitate the discussion and output of new and unanticipated responses in relation to meaning and experiences by the participants (Willig & Stainton Rogers, 2017). Data collection methods have evolved with technology enabling data collection methods such as virtual interviews conducted via online platforms, such as Zoom. Similarly, a content analysis can be conducted using documents accessed via online websites. This section outlines the two data collection methods that were undertaken for this research in the attempts to address the research questions relating to food security in the context of trade and agriculture policy in Samoa - (i) a qualitative document analysis of two existing policy documents from the trade and agricultural sector and (ii) three semi-structured interviews.

4.2.1 Qualitative Document Analysis

A qualitative document analysis is a systematic procedure for reviewing or evaluating both printed and electronic document material (Bowen, 2009). It requires the examination of data – in this case, policy documents – in order to “elicit meaning, gain understanding and develop empirical knowledge (Corbin & Strauss, 2008). In similar cases, researchers have used empirical material such as existing texts and documents to provide an abundance of information on specific research topics. There is no predefined protocol or process in executing this type of analysis. More so, it is argued by Flick (2018) that an informal approach is the best option as a method for analysing written texts and documents (Flick, 2018). Furthermore, an informal approach is deemed even

more suitable if it were part of a research design where text analysis is not the core data collection method, but instead more supplementary data collection method (Denzin & Lincoln, 2011).

A document analysis was best suited for studying the relationship between food security and policy in Samoa. Hence, a document analysis was undertaken, as it provided a snapshot of the current direction of Samoa food related priority areas within the trade and agriculture sectors explained throughout the sector policy documents. The document analysis was also undertaken to provide a perspective from a wide range of stakeholders that were not easily accessible during this research but had valuable input in the formulation of the two documents which included input from government officials and stakeholders from the private sector and civil societies (Cohen et al., 2008).

The two policy documents that were analysed as part of the data collection for this research are:

- (i) The Trade, Commerce and Manufacturing Sector Plan 2017/18 – 2020/2021 (Government of Samoa, 2017)
- (ii) The Agriculture Sector Plan 2016/17 – 2020/21 (Government of Samoa, 2016a).

The sampling method used in determining the assessed documents in this research was a ‘purposive sampling’ method which allows for a selective method of identifying the two policies to be included on the basis of their validity against the objectives of this research (Cohen et al., 2008). Purposeful sampling is a common approach in qualitative research and participants and other samples including written texts are selected according to what is relevant to the research questions (Whitehead & Whitehead, 2016). In designing this research, the criteria for sample selection, using a purposeful sampling method, targeted these government policy documents. This choice was primarily due to the close links that the sectors have to food security in Samoa, where agriculture and trade are key sectors in enabling access to food and food availability. The two documents guide these two sectors and were therefore relevant for this study.

In addition, the use of documents throughout this research assisted in identifying the current approach to food security in Samoa and in identifying specific themes, similar elements

were further explored, through specific lines of interview questioning. (Bowen, 2009). A document analysis method is time and cost effective because the documents already exist and were publicly available online. However, there were limitations to this approach. Often, policy documents of this nature are formulated with a particular purpose and may not provide sufficient information when used on its own (Bowen, 2009). For this research, the documents analysed, were government produced and may be biased towards supporting government related policies and therefore were examined cautiously and discussed against other more independent views (Bowen, 2009). The two policy documents analysed provided a critical information on the trajectory food security in Samoa and complimented the semi-structured interviews with the views and perspectives from government officials, private sector and civil society. Interpreting documents from two key sectors of trade and agriculture against literature reviews in earlier chapters of this research report were also useful in triangulating data and can corroborate findings across different data and information sets (see Chapter 6) (Bowen, 2009).

The document analysis involved skimming, reading and interpreting the two sector plans, identifying key themes, objectives and strategies that were specific to food security. In doing so, the analysis focused largely on key words and phrases relating to agriculture food production, commercialization, and subsistence farming. From a trade perspective, the analysis focused on imports of food and promotion of trade and a value chain approach to food production. The analysis explored emerging themes around the following key words and phrases: food security, agriculture, production, subsistence, food access, food availability, trade, imports, commercial farming, fisheries, and crops (Bowen, 2009).

4.2.2 Semi Structured Interviews

Three semi structured interviews were conducted as a second data collection method. Semi-structured interviews are the most widely used method for data collection in qualitative research, particularly because interview data can be analysed in different ways and is compatible with other data collection methods (Willig & Stainton Rogers, 2017). Interviews are usually easy to arrange. However, organizing a series of semi-structured interviews with possible participants can be logistically challenging – especially in the context of this research, where participants had to be contacted via email and interviews conducted using the Zoom platform. According to Denzin and

Lincoln (2011, p. 1002) a classic interview is a “face-to-face verbal exchange, in which one person, the interviewer, attempts to elicit information or expressions of opinion or belief from another person or persons”. Interviews are useful and they can be conducted over the telephone or the internet, bridging distance barriers and enabling access to participants who would not otherwise be accessible given certain situations (Denzin & Lincoln, 2011). Semi-structured interviews can have more potential in obtaining knowledge and information from experiences, because they offer flexibility to allow flow of discussion taking different angles important to the interviewee and the interviewer. Semi-structured interviews can be defined as “an interview with a purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena” (Denzin & Lincoln, 2011, p. 1002).

Careful preparation and planning were involved in my selecting of participants that could provide key knowledge and experience on food security issues and their relation to agriculture and trade policy in Samoa. It was important to select participants that would offer these experiences and knowledge from different stakeholder groups within the sectors. The selection of interview participants was based on availability and their roles within the agriculture and trade sector respectively. I also utilised my network connections as a public servant to connect with potential participants from the trade and agriculture sectors. The COVID19 pandemic posed significant challenges. Travel plans to Samoa to conduct semi-structured interviews in-person with selected participants was not realised. Seeing participants face-to-face would have had the advantage to create stronger connections. However, the impacts of COVID19 on travel compelled me to explore alternative interview methods, using email and Zoom to contact participants and conduct the interviews.

An information sheet about my research objectives was sent out via emails to five potential participants seeking their availability, and three participants responded positively. The participants were: a representative from the Ministry of Agriculture who was also a local subsistence farmer; a representative from the Trade Division, Ministry of Foreign Affairs and Trade; and a representative from the private sector and independent consultant who has worked in the area of agriculture and trade. The semi-structured nature of interviews relies on the rapport established between the interviewee and interviewer and combines features of the formal interview and features from an

informal interview. As a public servant having worked in the agriculture and trade sector, I had been fortunate to have established connections and good rapport with the three selected participants for the semi structured interviews (Willig & Stainton Rogers, 2017). The formal aspects of interviews included an interview guide, designed to guide the progression of the interviews. These lasted between sixty to ninety minutes (Ottmann & Crosbie, 2013). The informal aspects adopted some open-ended questions to encourage a conversational feel to the interview with emphasis on participants' narratives and experiences. Although rapport was quickly developed during the interviews, the process still required careful navigation of topics taking into consideration sensitivities that could have arisen. I was careful to ensure that interviewees were not pressured in any way to reveal more than what they were comfortable with (Willig & Stainton Rogers, 2017).

The information collected was significant and the analysis uncovered key themes around issues pertaining to food security in the context of policy in Samoa. A thematic analysis was used to assess the information gathered from the three interviews. A thematic analysis is the method for identifying, analysing and reporting patterns or themes within data (Braun & Clarke, 2006, p. 77). This approach, illustrates which themes are important in the area explored in the research and the end result should highlight the key themes and meaning behind the data (Joffe, 2012). In undertaking a thematic approach to the analysis of interviews, 'themes' were defined. Themes capture key aspects about the data in relation to the research question and represents a level of patterned response or meaning within the data set (Braun & Clarke, 2006). They can refer to a specific pattern of meaning throughout the data analysis of interview transcripts (Joffe, 2012). In this research, themes were uncovered by carefully assessing the interview notes, gauging areas of similarities discussion points throughout the interviews and identifying key themes. A thematic analysis approach was used as it allowed further understanding of the realities of participants' lived experiences and their role within the agriculture and trade sectors. Their views and perspectives allowed understanding of the issues related to food security and policies in Samoa.

4.3 Ethics

This research was undertaken with regard for Massey University's ethics requirements. Before undertaking the semi-structured interviews, principles of special relationships with people

as well as organisations were considered, given my current role as a researcher employed in the government sector. The decision chart in MUHEC assisted as a guide for conducting research and analysis (Massey University, 2017). I have considered the cultural context when the selected participants and professional and cultural protocols were exercised carefully. As a Samoan and village chief in my family, I consider myself as an insider to Samoa and the different cultural elements that exist with regards to interpersonal approaches that require cultural considerations. My interpersonal skills were vital in developing rapport and engaging with the selected interview participants. Although measures were considered, should any conflict arise, the process for this research did not experience any unforeseen conflicts. I understood that in undertaking this research, ethical issues relating to privacy and confidentiality and handling of information and data had to be carefully considered and therefore took great care to use codes and choose interview data that would not easily identify my participants.

4.4 Positionality and Personal Reflections on Limitations

Undertaking this research has been mentally challenging for me, a father, husband and a public servant for the Government of Samoa. I am currently based at the Embassy of Samoa in Tokyo, Japan, for the past four years. I have been a public servant for over ten years working in international trade policy. During the early stages of the COVID19 crisis in 2020, I dealt with several challenges, including family health issues and the birth of my second daughter during this restricted time. In the earlier stages of my research, the COVID19 pandemic intensified globally, and travel restrictions resulted in significant challenges to undertake my research data collection. Consequently, measures were taken to enable interviews to be conducted online. My initial interest in food security stemmed from a SIDS perspective. Examining food security issues and challenges, especially in the Pacific region, as explained in Chapter 1, came from my professional background and work in international trade policy and negotiations. Oftentimes, policy formulation processes fail in addressing the impact and concerns of food security, particularly access to food. The growing concern with food security and access to food around the world is a situation that can severely impact a small island like Samoa.

The research process has not only been useful in understanding the parameters surrounding food security from a policy perspective, it has also highlighted other key food security related areas

that were outside the scope of this research. This research could have benefited from more interviews offering a wider perspective on the key issues. As an overall reflection, the key to learning has had as much to do with the information explored within this research report, as it has with the research process itself, which has significantly changed the way I will approach research in the future. This research process has also shaped and influenced my perspective on the complexity of issues surrounding food security and food access.

4.5 Chapter Conclusion

The methodology and methods explained in this chapter were focused on obtaining meaningful in-depth qualitative data on the key objectives of this research. Although the sample size was small, my research objectives were addressed considerably, as discussed and illustrated throughout the results chapters that will follow. The data collection itself was carefully considered and the two-pronged approach of a document analysis complemented by semi-structured interviews was useful in obtaining the appropriate information and addressing the research objectives. The collection of data was undertaken via online and social media platforms due to the situation of COVID19 in Tokyo and the rest of Japan which restricted travel to Samoa, but relevant data was able to be obtained. The research design and methodology were revised in consideration of the challenges and limitations that emerged due to COVID19 and the data collection was undertaken utilising online technology.

CHAPTER 5: DOCUMENT ANALYSIS AND INTERVIEW FINDINGS

5.1 Introduction

Agriculture and trade policy in Samoa can have a fundamental impact on how people access food and how food system structures are shaped. A fundamental element in exploring the relationships between policy and access to food in Samoa can be found in the specific policy frameworks of the trade and agriculture sectors that currently guide their direction of development. Another way of exploring the different aspects that influence how access to food is shaped was through semi-structured discussions with active stakeholders of the agriculture and trade sectors in Samoa. This chapter is sectioned along these two methods of data collection. Firstly, this chapter examines the fundamental policies related to food security in the two key sector policy documents, using a qualitative document analysis. Secondly, a data analysis, collected from three semi-structured interviews with key stakeholders from Samoa, including representatives from the government, private sector and civil society, is presented.

5.2 Document Analysis

The document analysis aimed to explore whether food security or access to food is adequately considered in Samoa's government policy documents guiding the agriculture and trade sectors. The two policy documents that will be explored and assessed will firstly be the Samoan Trade, Commerce and Manufacturing (TCM) Sector Plan 2017/18–2020/2021, and secondly, the Agriculture Sector Plan (ASP) 2016/17–2020/21. The key elements that will be explored throughout this chapter will be three-fold: (i) the background and context of the plans; (ii) the plans in the context of access to food and food security and (iii) the limitations of the plans. The criteria for this document analysis were to explore these two plans with focus on the overall policy frameworks to identify interventions and implementations towards strengthening access to food and food availability in Samoa. The following section looks at the TCM and the ASP, taking into accounts their considerations (or not) towards access to food.

5.2.1 The Trade Commerce and Manufacturing Sector Plan 2016/17 – 2020/21

The TCM Sector Plan, has an overall vision of “Sustainable trade, commerce and manufacturing for enhanced growth and development”, with an overall target of GDP growth. The TCM plan is linked to two key outcomes from the Strategy for Development of Samoa, with a focus on increasing exports and enhancing private sector engagement in achieving economic development (Government of Samoa, 2016c, p. 17). The sector objectives are organised into four key pillars outlining the TCM sector’s priority areas of focus and implementation actions. Figure 3 outlines the four key pillars.

1. **Improve Industrial Supply and Productivity;** This pillar aims to improve productivity in key industries with a consistent supply of different products including food and agriculture products.
2. **Increase Processing Activities and Value Addition;** aims to strengthen the value-added production, manufacturing and standards
3. **Enhance Market Access and Visibility for Samoan Good and Services;** aims to reduce cost of doing business and improve trade balance through promoting exports.
4. **Enhance Market Access and Visibility for Samoan Good and Services;** aims to reduce cost of doing business and improve trade balance through promoting exports.

Figure 3: Trade, Commerce and Manufacturing Sector Plan Pillars

Source: (Government of Samoa, 2017)

It was challenging to locate meaningful links of the four pillars to food security or more specifically access to food. However, further review of the actions section, of each the TCM pillars, highlighted indirect links within the pillars that relate to food availability and access to food, mostly associated with pillar one on improving productivity. Although there were some references

in other pillars relating to access to food such as productivity, trade and food processing the analysis indicates that these references do not translate into any interventions in the plan to address or strengthen access to food specifically. The pillar objectives capture some references that is related to food access, but they fail being reflected further into specific activities of the plan, that can strengthen access to food. Further, the pillars have a strong focus on the promotion of commercializing production and integrating subsistence farming into money making activities whereby theoretically, small farmers would be able to integrate into the larger supply chain by growing for subsistence consumption and selling excess production to generate income. However, the plan is largely focused on promoting production for export and on products such as cocoa and coconut and less on staple food crops for consumption.

The emphasis placed on commercialization with the aim to increase productivity within the TCM sector suggests a clear linkage to the agriculture sector. Commercialization as a means to increase production is generalized within the TCM plan and there is no established framework to facilitate this approach. The linkages to the agriculture sector, although described in the text, are unclear. There is a disconnect between the objective to increase productivity and the production of food for consumption. The TCM plan focuses is on expanding productivity of priority export commodities, like cocoa and coconut, which suggests that other food products for consumption, are not given priority. The TCM plan also refers to actions to be implemented through the National Export strategy (NES) to encourage the production of locally produced goods (Government of Samoa, 2008). However, the NES was absorbed into the TCM sector plan when it was established, suggesting a disconnect within the sector approaches to increase productivity. The NES is also outdated as significant changes have occurred in Samoa both with the Sector-Wide Approach (SWAP) approach by the government and also the realignment of its priorities within this sector including changes with regards to reduction on import taxes on food products (Government of Samoa, 2008).

An important tool used to ensure adequate access to food is reducing import tariffs on food products through trade liberalization, as was explained in Chapter 2. Lowering food prices are largely linked to reductions of tariffs and related taxes on key staples and agricultural inputs (Gillson & Fouad, 2015). The TCM sector plan, through its pillar on market access, fails to address

reduction in tariffs on food staples to reducing costs of food and increasing access of food and its availability especially in rural areas. Overlooking the importance of trade for access to food and food availability from a food security perspective, can have significant impacts on access to food for Samoans in the future. Trade policy to strengthen access to food requires a comprehensive approach and the TCM plan does not clearly articulate the linkages between its objectives nor recognise that achieving its intended objectives cannot be accomplished within the trade sector alone. As such the focus of this TCM plan document, although inclusive to some extent, lacks objectives to enhance access to food for Samoans. The trade sector is a key element, in enabling food availability, access, and ensuring the flow of food in Samoa is not disrupted to supplement local food production shortages.

5.2.2 The Agriculture Sector Plan 2016

The ASP has a vision of “A Sustainable Agriculture and Fisheries Sector for Food Security, Health, Prosperity, Job Creation and Resilience” complemented by a sector goal to “increase food, nutrition and income security” (Government of Samoa, 2016a, p. 5). Figure 4 highlights the strategic framework which is divided into four end of sector plan outcomes (ESPO).

ESPO1: Sector coordination improved and investment in food security and inclusive commercial agriculture/fisheries production systems increased

ESPO2: An increased supply and consumption of competitively priced and domestically produced food

ESPO2: An increased supply and consumption of competitively priced and domestically produced food

ESPO4: Sustainable agricultural and fisheries resource management practices in place and climate resilience and disaster relief efforts strengthened.

Figure 4: Agriculture Sector Plan End of Sector Plan Outcomes

Source: (Government of Samoa, 2016a)

The ASP highlights an overarching macro vision, in End of Sector Plan Outcome 1 (ESPO1) related directly to food security, focusing on increased investment in food security with emphasis on increasing agricultural production to enable production of more food for consumption. The analysis of ESPO1 suggests that its specific focus is on the operational side of the ASP. ESPO1 fails to articulate specific areas of food security that requires investment. This can cause confusion or lack of clarity at the implementation stage of the ASP and the plan's specific activities. Further, the indicators used to assess the implementation of ESPO1 is based on the overall public expenditure within the entire agriculture sector which is misleading to the intention of the plan's objectives. That is, agriculture expenditure may be significant but does not necessarily reflect that it is being directed at activities to strengthen food security and access to food. Also, there are no activities mentioned about specific investments in food security, or about plans to strengthen food access and availability. One exception is one activity for a public investment program plan to be prepared, which relies on donor funding for its implementation. The total allocated budget for the implementation of ESPO1 is just under five million tala (NZD\$2.8 million) which is not much compared to the other ESPOs that have budget ranges from fourteen million to fifty-seven million. The percentage of the entire budget for ESPO1 is only four percent. An investment of only four percent in food security related objectives over a five-year period does not seem to be adequate to address Samoa's food security concerns.

The ESPO2 also refers to increasing the supply of domestically produced food. A significant element of increasing supply of domestically produced food relies on government-led awareness and sensitization, especially within the rural village communities. This may be through community outreach programs to sensitize local producers and community members on how to grow and produce food more sustainably. Whilst this objective is a positive initiative, where access to food and food availability in vulnerable areas are concerned, ESPO2 needs to be linked with relevant actions, clarify the demographic targets intended, and channel resources specifically to activities that strengthen food security. As such, resourcing becomes a crucial part of the plan. Limited resources impact all sectors' ability to achieve sector objectives and can result in ESPO2, competing with other priority objectives within the agriculture sector, for implementation resources and may not be considered an immediate priority. The plan has placed priority on large-scale investments, and this can be at the cost of resources to develop other critical areas like the

subsistence and small hold farmers and rural communities. There is no indication in this ASP, what specific product or food types are being considered and this lack of focus will have some bearing on the specific outreach approach required for communities. The limitations of resources will require the sector to potentially sit down with key stakeholders, including rural farmers, and determine the relevant approach that is best suited and strategically consider as a team. Also, what products will receive the limited support available could have more attention, instead of the current outward focus of commercialization for export, linking to the sectors 'value chain' approach is ESPO3.

The ESPO3 promotes a 'value chain' approach aiming to make interventions in every component of the value chain. Specifically, this approach considers the chain or pathway of a specific product from its production stage in the farms, its processing stage (manufacturing) to the distribution or trade stage and marketing of these products both domestically and internationally. The value chain approach explained in the ASP focuses on commercialization in agriculture. Although there is an intended focus on small farmers (Devaux et al., 2018), the ASP appears to only place emphasis on the private sector organisation of farmers and less on subsistence farmers in rural communities. Similar to the TCM sector plan, the emphasis is on generating incomes through commercialization of farmers. There is now reference within the value chain that suggests assistance and direct support to farmers in the rural communities and how small farmers can achieve commercialization. Promoting the value chain approach without small-scale farmers in mind, means that the focus and overall outlook is not effective, as specific actions in the strategic framework are missing. If the sector uses value chains without integrating local farmers, then the concerns on availability of food are not addressed, nor the participation of small farmers in this value chain approach that the ASP 2016 promotes.

This lack of clarity and links between the agriculture and trade sectors can lead to either duplication of efforts or a misalignment of the linkages between the trade and agriculture sectors, as the ability of lack to produce food has an impact on what food is available that can be accessed by everyone. There needs to be further clarity on what specific areas of productivity is being prioritised by both sectors within the plans as productivity has a considerable impact on what types of food is available for people to access. The value chain approach starts from the agriculture sector

and crosses over to the trade sector when it reaches the trade and marketing component. Hence, these linkages must be elaborated further. Further, the value chain approach in theory is considered an ideal way to promote productivity, but in practice it involves multiple challenges, and a one-size-fits-all approach may not be suitable for all producers, especially the smaller farmers, who operate on a subsistence basis, if they are not integrated into the value chain in some way. How these farmers will feature in a value chain is unclear in the ASP. Also, a direct link with other key government Ministries and communities needs to be made clear and how the sector plans to bridge the existing gaps.

5.3 Analysis of semi-structured interviews

Participants for the semi-structured interviews were carefully chosen to access relevant data from the trade and agriculture sector, which is why stakeholders within government and their role in formulating policy and driving the policy direction in these sectors were selected. A representative from the private sector, as the driver of trade and agriculture in Samoa, and a person from the civil society, who represents the community and village level farmers, those that are most impacted by policy decisions in relation to access to food, also participated (see also Chapter 4). The following themes emerged providing valuable information on the situation in Samoa. The three themes that emerged were: (i) import dependency and nutrition; (ii) the impact of import taxes on access to food; (iii) commercialization for export priorities; and (iv) policy implementation and sector challenges.

5.3.1 Import dependency and food nutrition

This section discusses three key elements and influencing factors related to food access in Samoa discussed with the interview participants. Specifically, this section will analyse: (i) the issues surrounding the increase in consumption of imported food staples; (ii) access to nutritional and quality food; and (iii) the impact of trade and import taxes on food access. These themes will provide insight on how food is accessed by Samoans and the key role that trade has had on significantly changing the types of food that make up the Samoan diet.

The nature and patterns of food consumption in Samoa have shifted significantly with communities consuming less traditional food. This change continues to be enabled by the availability of food from overseas. Over the years, Samoa has developed regular trade routes resulting in imported food becoming more common and often preferred over nutritional alternatives. One participant, a trade sector representative, highlighted that the Samoan government was recently recognised by the World Trade Organization (WTO) as a net food importing country, meaning that a significant portion of Samoa's food is imported and has shaped the nature of food consumption and diet in Samoa.

Samoa recently requested and was accepted to be recognised as a net food importing developing country under the WTO definition. The objective is that we come together, and we are proponents of ensuring that unnecessary bureaucracies do not stop the food supplies from entering our countries.

This trade sector representative alluded that Samoa recognises the need for Samoa importing food to supplement what is locally available, and further highlighted the importance of maintaining food accessibility for Samoans. As a net food importing, food import dependent country, external shocks or disruptions in food supply can significantly impact Samoa. In connection to this, the participant from the private sector highlighted that Samoans were opting to consume imported food over local food and the trade statistics indicate that the top ten imported food products into Samoa are considered food staples. She explained:

Yeah, that was the trend that we were going more into the imported food. And you could see it with the top ten list of imports.

Samoa's import dependency on food indicate that high quantities of the food consumed by Samoans over the years have largely been imported, including meat, sugar, flour, rice, canned food and dairy products. The increase in imported staples highlights the behavioral aspect of consumers and the dependency on imported food of communities and food systems to supplement or substitute locally grown food. Factors that hinder food imports, can then result in inadequate food supplies in Samoa, impacting access to food. Participants' views on food imports indicated that food security gaps in Samoa pertain to lack of access to healthy and nutritious food. All participants explained that limited access to nutritious food is a significant concern, especially in the populated

urban areas. The participant from the private sector highlighted that whilst most people have access to land and are presumed to be able to grow food for consumption, more families are opting to consume imported food that has low nutritional value. This participant insisted that there should be no excuse for people to not be able to grow food for consumption as access to land is in her opinion, adequate. She alluded:

I would say that in terms of food access, everybody has access to land. So basic goods like taro [and] banana, is easily accessible. The issue here is more to do with food nutrition - having access to the right type of food, and making sure that it's embedded in the household, daily diet - and I see it more in the urban area. It's very hard for working parents and working families to have proper meals.

This private sector representative, however, also explained access to land may not be a reality in the urban areas where land for agriculture is limited and imported food is easily accessible for purchase. Although food access may seem adequate in a general sense, the question of whether soil is healthy and nutritious is a critical element that is lacking in Samoa. Food with low nutritional value has dominated Samoan diets over years with high volumes of consumptions seen throughout the country in many households. The participant from the private sector stated that seeing issues with food nutrition in urban areas is common and is challenging for families. Although, locally grown food may seem easily accessible in rural areas, the trade sector representative explained that there is an urgent need for measures to ensure access to healthier food products, while imported food remains vital in supplementing locally available food in Samoa. The trade sector representative agreed that having access to food is only one aspect and that access to nutritious food should equally be considered where policy formulation is concerned. From a trade perspective it is important there are strengthened trade facilitative policies in place to ensure access to nutritious and healthy food. She explained:

It's not just about having access to food but having access to good and healthy food. - We've seen a lot of prompting [from development partners] because of the COVID; from overseas, on ensuring that governments exercise good trade facilitation processes to ensure the flow of food and supplies during this pandemic.

The participant from the trade sector explained that access to nutritional food and food security within the agriculture sector plan were discussed in the past. She explained that the

COVID19 pandemic has prompted more international organisations and partners calling for governments to exercise good trade facilitation measures to ensure continued flow of food supplies. Access to nutritional food is impacted by what is implemented at the policy level. To enable and promote access to food within communities, according to the private sector participant, is not adequately addressed. She explained:

When we were looking at the nutrition side of it, the issue of food security is mainly to do with accessing the right type of food. And somehow that message tends to get lost between the different plans.

This means that although access to nutritious and healthy food is at times being considered at the policy level, it is not adequately reflected in the trade and agriculture plans. Considering existing plans and sector objectives by the government against access to food and food security, the private sector participant highlights that accessing the right food is crucial and that this message is often lost within the different sector plans objectives currently implemented in Samoa. Considering access to food that is healthy and nutritious, the private sector representative explained, is considered a high priority within the agriculture and trade sector plans.

5.3.2 The impact of import taxes on access to food

The availability of healthy and nutritional food can be impacted by taxes imposed on food products. Import taxes on food can have a significant impact in the ability of Samoans to be able to access food. The private sector participant revealed that prior to the COVID19 pandemic, many Samoans continued to consume large quantities of imported foods that had high contents of fat, sugar, and salt even when taxes on these items were at the higher end. She explained:

All the things that are not good for us, back to our turkey tails. Even with the high tariffs that were imposed, we were still, the consumption was still high.

Border restrictions, however, seemed to have slowed this trend as trade routes have become affected by COVID19 restrictions. The increase in imported food, as mentioned earlier, highlights the dependence of Samoans on trade to enable access to food regardless of the nutritional value or in specific cases, the high tax imposed on some products. Turkey tails imports (as narrated in Box

1) are one typical example of these complexities. The private sector representative alluded that stringent import restrictions were imposed on turkey tail products in 2007, and yet, imports had continued. Further, the participant from the private sector highlighted that the new measures imposed on turkey tail products reduced the number of imports for a while, but eventually, turkey tails were again available and consumed in Samoa for personal consumption even at an incredibly high tax rate. Turkey tails have in the past been a main source of protein for many Samoans alongside imported chicken, lamb and beef. Its reintroduction back into Samoan saw a rise in its popularity amongst consumers. The importation of food into Samoa brings the trade element and its facilitative (or restrictive) role to food access into focus. The trade sector participant explained that trade negotiations involved the taxes imposed on products being imported into Samoa.

Box 1: Samoa's ban on turkey tail product imports

Samoa, through its health sector, had imposed in 2007 a ban on the import of turkey tail products, due to its unhealthy nature. Although no direct link was made, its contribution to the rising levels of non-communicable diseases in Samoa. In 2011, a prohibition on the domestic sales of turkey tails was passed. Following Samoa's accession to the WTO in 2012, the import ban was later repealed in 2013 to meet international trade rules and imports of turkey tails for private or personal consumption was allowed and a three hundred percent import tax was imposed to act as a deterrent due to the concerns by Samoa regarding the negative effect of turkey tails on the health of the population.

The Ministry of Health, in 2015 commissioned a study to assess how the treatment of turkey tails can be managed through at the policy level. The key recommendations were not limited to turkey tails, however, and included increasing taxes on food items that exceed certain nutrient thresholds in the nutrient profiling system (food with high contents of saturated fat, confectionery, sweet beverages, snacks and processed meats and fatty meat cuts) to be developed and reduced taxes on healthy food products (imported fruit and vegetables) not available in Samoa. These recommendations aimed to promote affordability of healthy food options and generate policy to increase fruit and vegetable availability.

Source: (Government of Samoa, 2019)

However, serious considerations are needed to address the impacts of eliminating taxes on food products, which can result in an influx of cheap and unhealthy food products that can contribute to health concerns such as links to non-communicable diseases in Samoa. The trade

representative explained that in negotiating trade agreements, which is aimed at reducing taxes on certain products including food, health concerns were considered together with the impact on government revenue. She explained:

When we're negotiating a market access offer on how we will liberalize or remove duties, health is one of the key considerations as well as the impact to government revenue or the fiscal implication.

Considering health and fiscal implications when negotiating tax rates on food items means that in addition to negotiating the lowering of taxes on food as a means to ensure the flow of food into Samoa, food nutrition concerns should also be equally taken into account. From a fiscal perspective, the elimination of taxes on food products to promote food accessibility can result in reduced government revenues and impact how Samoa provides services in other sectors of the economy. Maintaining access to food for Samoans, when a substantial amount of this access is through imports, becomes challenging when the potential impact that imports may have on other economic and social sectors are weighed up.

5.3.3 The impacts of commercialization for export on rural farmers

The ability of a country to be able to produce food to sustain the demand is a significant challenge for Samoa especially when exploring different approaches to food production within sector policies. Similar elements, earlier discussed in the document analysis, also emerged during the interviews, in particular, the two sectors' strong focus on commercialization for export. The trade sector representative explained that there is ongoing support from international development partners and organisations for securing resources to assist the agriculture sector with promoting semi-commercial and commercial production. She explained:

Development partners like [the] World Bank are now coming in and putting in money to expand semi the commercialization aspect of agriculture.

It is evident that development partners are directing their support and assistance to the agriculture sector specifically to encourage commercialization of production in Samoa. However, the participant from the agriculture sector stated that existing policies to promote local food

production has not necessarily achieved the intended outcomes it set out to achieve with repercussions felt most by local subsistence farmers, mostly based in the rural areas. Specifically, all the participants highlighted that both trade and agriculture policy in Samoa currently has a strong focus on directing investment towards commercialization to increase exports to overseas markets. Further, the focus on commercialization has resulted in the monopolization of some markets by the larger commercial farmers who dominate local markets for taro, fruit and vegetables; consequently, leaving smaller subsistence farmers without a market to sell their excess crops. The representative from the agriculture sector, alluded to a government initiative aimed to promote production of vegetables through distribution of seedlings to farmers. He explained:

A government initiative that we had recently giving out vegetable seeds. Now the thing is, it was not only for small farmers but also for commercial. The situation with the market at the moment is that it's been flooded [with produce] when we did a visit around August/September. For Chinese cabbage, most of the farmers were selling at a loss or it was going to waste as many saw that it was not worth the labour and water it took to grow.

The initiative of promoting production through the distribution of vegetable seeds to local farmers and communities did not achieve the intended objectives and larger farmers participating on a commercial basis under this initiative resulted in a loss for the smaller growers, who could not compete. Although the seed distribution initiative seemed like a viable approach by Government, an unforeseen negative result occurred when a large commercial farmer became involved and unintentionally monopolized local markets of products such as Chinese cabbage, leaving the small subsistence farmers out of business. The commercial farmers also often had direct connections or owned large supermarkets and had an immediate advantage for the sale of their produce as opposed to the smaller farmers who had to either travel to a nearby market or sell their produce on the roadside. This impact of a one size fits all approach does not distinguish between small farmers and commercial businesses, rural, or urban factors in the agriculture sector. Nor does it consider the impact that one may have on the other when strategic policy aimed at achieving one particular goal has a negative outcome, affecting food availability and how communities would be able to access food.

Samoa's approach to increasing food production through the promotion of commercialized farming also prioritises exports of local food products to overseas markets. The representative from the private sector explained that integrating local farmers into the supply chain that is dominated by commercial farmers remained a challenge. Subsistence farmers are being left out and are not adequately equipped to produce high volumes of food. Although there have been some successes with exports of products like taro where commercial players have been able to link with the smaller farmers and work together to produce taro, the focus is predominantly for export to overseas markets. The participant from the private sector further explained that there is no mechanism within policies to support integration of small farmers into the supply chains of commercial farmers. In many cases smaller farmers are pushed out and eventually no longer produce crops. She explained:

If you can have a mechanism that will capture the smallholders, and that's what they've done with the taro actually [and larger farmers were] able to utilise the different farmers with a specific area to supply them. And as long as there is a mechanism within those commercialized boundaries to allow the smallholders to provide the flow of vegetables to them.

Integrating smallholder farmers to be better included in agriculture policy, is an area that the private sector representative highlighted, which requires further strengthening of policies to enable small scale farmers to produce and supply as a collective. Currently, there seems to be insufficient consideration towards integrating local smallholder farmers into the overall framework of the agriculture policy, and the participants noted that the framework is business focused, driven largely by profit and cost savings also contributes to small farmers inability to integrate successfully. The private sector representative alluded to commercial farmers as often profit driven, only participating in local farmer supply chains when it is profitable for them. Further, small scale farmers find that they are unable to compete or are offered very low prices for their produce that do not match the considerable inputs required for production. She explained:

It's the nature of competition. And unfortunately, there are areas where you will have monopoly [and] in the end, businesses are driven by profit, and [if] they can see areas where they can save costs then they will do that.

The nature of doing business for many commercial farmers indicates that integrating smaller farmers is not government's top priority. It is unsurprising that the business nature of food production takes precedent. Therefore, there needs to be some element within government policy to support local farmers and connecting them to viable supply pathways both for sustainable food production and income generating opportunities. A lack of support to allow for integration amongst farmers can also be seen in other assistance programs across the agriculture sector working to increase production and exports. There needs to be a balanced focus from an economic perspective as well as considerations on the social implications that emerge as a result.

5.3.4 Sector policy coordination challenges

The ability of Samoans to have sustained access to food relies on the policies to drive and support food security and access to food. The key departments that are the drivers and implementing arms of these sectors and policies are therefore critical to ensuring that relevant policy objectives relating to access to food are achieved. Key themes that emerged during interviews suggest a disconnect or misalignment in policy and implementation, also sector coordination challenges and limited resourcing for policy implementation. As key drivers of the policy direction in relation to food security, the role of sector coordination is crucial. The formulation of trade and agricultural policies are only as good as its effective implementation and implementing the sectors objectives can be challenging. The participant from the private sector stated that there is misalignment of the policy and implementation and the disconnect between the two, has significant impact on how expected outcomes are achieved or not. She explains:

We have a common understanding of the main objectives at the SDS [Strategy for Development of Samoa] level, we see it at the highest strategic level, it's there. But when it comes to operationalizing it and commitment and buy in from the different agencies [it] is very different. And I think one of the key things there is resourcing [and] as long as the way we run our resourcing within government is the way it is, it is not fully aligned.

The participant from the private sector explained that although the SDS considers access to food within the context of food security, the implementation and drive from the relevant agencies can be quite different. There exists a disconnection at the operational level and the commitment of the relevant agencies to effectively implement these objectives is weak. Further, the private sector

participant explained that the misalignment between resources and policy implementation is significant, limiting the sectors' ability to effectively implement policy that are important to availability and access to food. Key to addressing this misalignment is the need for strengthened sector coordination. Policy implementation remains challenging for many sectors and government Ministries that have over the years, become accustomed to operating individually of each other. The representative from the trade sector explained that whilst the Government has over the years, moved towards an integrated sector-wide approach, there remain challenges within these sectors regarding the formulation, direction and implementation of sector policies that directly impact access to food in Samoa. In some cases, there is a policy within one sector that contradicts with another sector's policies resulting in challenges and conflicts at the implementation stage. She said:

We need to strengthen the sector coordination framework that Samoa has established [and] continue to strengthen the collaboration down to the implementing agencies and the beneficiaries of these interventions.

The trade representative explained that there are existing bottlenecks in sector coordination that require strengthening and for sectors to work collaboratively towards common goals, realizing that the two sectors are deeply interconnected. The work required to achieve sustained access to food depends largely on the ability of the agriculture and trade sectors to share information to enable informed, collective policy decisions and implementation. The trade representative highlighted that a key policy by the agriculture sector can severely impact the work of the trade sector aiming to achieve similar objectives of strengthening food availability and food access in Samoa. She explained:

I think we just need to talk more between agencies when there are sector wide meetings, and for key persons, stakeholders, to understand that agriculture is not on its own, or that trade is not on its own, and that the work that we do are all interrelated.

The trade representative elaborated further that communication is key and that sectors needed to work collaboratively and strengthen communication between the two sectors. The private sector representative alluded that in her experience over the years, policies have often

changed when a new person took on a crucial role within the sector, resulting in institutional memory loss and momentum. She explained:

We have had progress with how to deal with these things, but it keeps changing because people change in terms of people [that are] responsible for all these different plans and policies. So, you're always having institutional memory issues.

The private sector and trade sector representatives explained Samoa's plans and policies keep changing because people in sector leadership roles driving policies also change. As a result, there is an element of loss of institutional knowledge and ensuring priorities are followed through is often lost in the day-to-day operationalization of these policies and plans. Further, it is challenging when effort and resources mobilised towards developing particular agriculture or trade policy to address access to food is derailed when the incoming person responsible opts to drive food access and related policy in another direction placing a lesser focus towards access to and food availability.

5.4 Chapter Conclusion

In conclusion, this chapter looked first at the TCM sector plan and the ASP as critical documents within the government, and the document analysis revealed critical themes in relation to the government's approach to access to food and food security in Samoa. The two policy documents both highlighted that there is limited priority placed on policy measures to strengthen access to food and food security. The key strategic framework of the ASP seems to be misaligned with the narrative or policy translation of the ASP. The approach to value chains with a focus on commercial productivity is another theme that emerged, especially through the lens of food access links to the production of food within the agricultural policy space was unclear. In the case of the TCM sector plan, food access and availability specifically take a less significant role, instead giving way to an export focused and pro-commercialization approach to production of food. Although this may seem ideal for the availability and access to food, many of the rural farmers and communities who are participating in subsistence farming are often left behind in the process.

The trade related policy frameworks, as a critical element in ensuring there is adequate access to food in times of shortages, are not given priority in the TCM sector plan. Although food production is part of the value chains approach by both sector plans, the sector objectives have an outward focus on exports. The ASP is the main government policy framework to achieve food security and access. However, this document analysis suggests that there is clear misalignment between policy and intended outcomes, especially in the area of productivity and in establishing connections with the trade sector. The ASP, however, is not a means to an end within itself and requires input and implementation from all other relevant sectors, including the TCM sector in achieving concerns with access to food in Samoa.

The interviews also highlighted key issues in agriculture and trade policy that impact access to food and food availability in Samoa. There is a clear indication from participants on the health and nutritional concerns pertaining to access to food, and the growing food import dependency in Samoa, which will require further exploring by both sectors. The government's pro-commercialization approach within its policy often does not translate successfully in the implementation phase. Highlighted in certain scenarios this approach can have a severe impact on vulnerable small subsistence farmers. Small farmers are often left outside the integration aspect of these policies and struggle to compete with larger, commercial farmers who monopolize the production in local markets, driven by profit margins. Samoa, as a net food importing country to supplement locally produced food highlights the importance of trade as an enabling mechanism to access food.

There are obvious issues to be addressed, including negative aspects that can emerge as a result of poor policy alignment, resourcing and implementation. The themes that emerged when discussing access to food in the context of trade and agriculture policy also reveal that current food imports are mainly food with low nutritional value. The nature of policy implementation and coordination between key agencies and Ministries in Samoa highlight challenges within sectors that continue to operate independently, with little considerations accorded to the links and synergies that require collective sector collaboration to achieving the intended objectives. Institutional memory loss, conflicting policies as well as policy duplication, are a result of poor coordination. These issues also impact resource coordination, needed to support the agriculture

and trade sectors. These factors can result in food insecurity issues such as lack of access to food, or access issues being pushed further down the list of priorities. These are factors that can threaten the future food security of Samoa.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Introduction

This research set out to explore the relationship between food security and trade and agricultural policy in Samoa within the context of sustainable development. The previous chapters have been structured to systematically explore the elements of both food security and policy in Samoa, contributing to achieving the aim of this research. This study focused specifically on access to food as one significant component of food security. This study has framed food security within a sustainable development context. An increasing emphasis on global sustainable food security has emerged from ongoing discussions on sustainable development in international conferences since the 1970s (see Chapter 2). These events illustrated the emerging concerns threatening food security globally, and the Asia-Pacific region was recognised by the UN as the most vulnerable to food insecurity (United Nations, 2009). Chapters 2 and 3 have explored how food systems and the ability of people to access food are linked with food security. Specifically, Samoa's food systems were analysed, and key results highlighted significant shifts in food system structures in Samoa since the mid-twentieth century. These are due to the declining agricultural production and increased dependence on imported food shaping Samoan food systems today. The trajectory and shifting landscape of global food security within current food systems were analysed as a result of globalisation. Key to this research was to explore the linkages between access to food and the overall policy mechanisms that impact food security in Samoa. Key linkages identified were the connections between agricultural production, trade, and access to food, also food availability, within the scope of food security. Food systems are built around local production; however, food imports were highlighted as key influence of Samoa's current food system. These two parts were explored in some depths, and specifically, an analysis on the existing agriculture and trade policies in Samoa was undertaken.

To recap, this research aimed to "Examine the role of trade and agriculture policy on food security in Samoa." This aim was refined into two main research questions:

- (i) What are the relationships between food security and trade and agricultural policies in Samoa?
- (ii) What are the main issues surrounding access to food in Samoa?

This research used a qualitative methodology, and the data collection was based on two methods: firstly, a thematic document analysis of the Agriculture Sector Plan 2016 and TCM Sector Plan 2017, the key policies driving the agriculture and trade sectors in Samoa; secondly three semi-structured interviews with key stakeholders within the agriculture and trade sectors from the government, private sector and civil society were conducted. The two methods of data collection complemented each other and have provided rich data and insight into the priorities of how sectors are addressing food security issues in Samoa. The findings highlight some critical gaps that exist within this context. In this final chapter, a discussion and conclusion will be presented, drawing on the literature and findings and interpreting the key results that have emerged. This discussion aims at understanding the significance of the relationship between food security and agriculture and trade policy in Samoa. The following two sections will address each of the two research questions.

6.2 The relationship between food security and policy in Samoa

This section addresses the first research question. The relationship between food security and trade and agricultural policy is deeply intertwined. Nguyen (2018) highlighted that to address food security concerns, food systems that encompass a range of activities, including agriculture food production, food imports and distribution, also become relevant. Food security is highly determined by the food systems in place and food systems in Samoa are primarily based on agriculture and food imports. Bottcher et al. (2020) explain the important role of food systems in influencing the adequate supply of food and how these are closely linked with whether a particular area is adequately food secure. Food systems influence consumer diets and food consumption trends and are interconnected with other key systems (health, energy, trade). Therefore, shifts or changes in a food system can be triggered by a shift or change in other systems. The interconnectedness of food systems also places high importance on food production and food availability mechanisms. This interconnectedness is part of enabling access to food. In Samoa, agriculture and trade are the two main sectors that contribute to the production and availability of food. However, the document analysis found that the agriculture and trade sectors in Samoa seem to operate almost independently of each other, with weak linkages that are not being adequately addressed. In both documents, the ASP and TCM sector plans, it was evident that sector plan priorities have a very narrow focus on food security. The links between these two sectors are crucial

for strengthening food availability. Yet, they are not well established throughout the two sector policy documents. This result was confirmed by one participant from the private sector who alluded to the disconnection between the two sectors and stated that a more substantial alignment of policies between the sectors was required. This participant also revealed that sector coordination was a continuing challenge, despite the government of Samoa having undertaken a multi-sector approach to strengthen development efforts. This essentially means that Samoa's food systems, dependent largely on agriculture and trade, are negatively impacted by these weak but essential sectoral linkages within the current framework that, instead, could work towards strengthening agricultural production and facilitate trade.

The FAO (2019) suggests that a fundamental issue of food security from a sustainable development perspective is whether there is enough food for the increasing global population. Therefore, access to food is a significant component of food security. Access to food links food security with food production, which impacts food availability and essentially shapes the structure of food systems (FAO, 2019). In Chapter 3, it was explained that the structure of traditional food systems in Samoa was focused mainly on subsistence agricultural farming and production surpluses, with food insecurity being uncommon (Government of Samoa, 2016). However, there has been a significant shift in the food system structures in Samoa, because of forces such as climate change impacting crop production, urbanisation, and the population started increasingly relying on commercial trade and the availability of imported food products. Connel et al. (2020) and Allen (2015) refer to the continued trend of increased imports of food products to Samoa, resulting in changes in diets and popularity of food with low nutritional value. A representative from the private sector explained that dependency on imported food has resulted in higher consumption on low nutritional, processed food products, as opposed to traditional staples and meat. This result is in line with Campbell (2015), who states that the local food systems have lost their importance and value in Samoa and have become a disincentive for local food production. There is clearly a need to re-assess the current food system structures in Samoa, especially considering the changing food systems structures as mentioned earlier. The continued impacts of climate change and urbanisation have resulted in the government directing policies towards increasing production and prioritising support to incentivize and strengthen production in both sectors. The reason is to revitalize agriculture and boost trade as part of the effort to strengthen

food security. However, the analysis of the existing sector policies identified a shortfall in the government's approach (see Chapter 5). The focus of policies shifted towards promoting exports and commercialization of production of only select products, such as cocoa and coconut, or on omitting food staples, such as fruits and vegetables, altogether, which raises concern for Samoa's future food supply (Campbell, 2015). The representative from the trade sector, highlighted how the COVID19 pandemic has exacerbated the situation and how it continues to have an impact on local communities' ability to access food with disruptions in trade flows and food imports, resulting in shortages of imported meat and grains.

The local food system in Samoa is largely based on agricultural production and imports of food. Therefore, the key roles of policies in shaping these food systems were emphasised by Glass and Newig (2019), and Candel (2014), recognising the importance of governance. From a sustainable development perspective, governance was recognised as the fourth pillar of sustainable development and as a tool to address the ongoing food security concerns in developing countries. The role of governance in the form of policies and development frameworks is essential to achieving food security. It further requires inclusive participation of those outside the Samoan government, including local businesses and civil societies. Boyd and Wang (2011) support this thinking by emphasising the need for strong institutional capacities and policy design as enabling mechanisms for the production and distribution of nutritious food for everyone. The way in which the government has approached and prioritised the agriculture and trade sectors influences the architecture of food systems through local production and food imports. Therefore, food systems are significantly shaped by government policies that are driving the two sectors, respectively (Connell et al., 2020). In the case of Samoa, this research has found that both the governance structures and policy frameworks need to be strengthened and that a higher priority needs to be placed on producing food for consumption. Also, distribution and infrastructure must be improved to facilitate the imports of food to supplement the local supply. The document analysis of both the ASP 2016 and TCM 2017 suggests that the current focus of the agriculture and trade sectors is driven towards the commercialization of non-staple crops. The policies are export-oriented rather than focused on improving local production of food for consumption. Further, the ASP and TCM sector plans do not clearly articulate how subsistence farmers can be integrated into the overall frameworks as significant contributors to food production. This observation was confirmed by the

participant from the private sector, who highlighted the need for the agriculture sector, in particular, to strengthen mechanisms to integrate small subsistence farmers into the overall agriculture and trade framework. The document analysis suggested that the design and focus of the agriculture and trade sector plans currently does not address issues of food security in Samoa. In fact, the way the plans are structured seems to widen the gap between the two sectors. The linkages needed to strengthen food security in Samoa through promoting production and facilitating the trade of food are weak. The increasing dependence on food imports places emphasis on the trade policy side to support access to food for consumption.

This neoliberal approach by Samoa, as highlighted by Otero et al. (2013), which has reduced tariffs and focuses on food trade, does not come without consequences. These consequences are experienced in the health sector with increases in the rate of non-communicable diseases that are attributed to a surge in imports of food with low nutritional value. Also observed can be the unequal distribution of food between urban and rural areas as the neoliberal focus is more on economic growth and less on social wellbeing (Zakaria et al., 2016). The views by Zakaria et al. (2016) seem to describe the overall thinking behind the formulation of agriculture and trade sector plans, as it is evident that there is a strong economic focus within the allocated priority areas within these plans and a lesser emphasis on the social implications. The case regarding turkey tails (see Chapter 3) provided a snapshot of this focus, as Samoa's food import dependency, which in some cases includes food with low nutritional value, were still imported when tariffs were high. The turkey tail situation showed that food imports have replaced the preference for traditional staples and locally grown food in Samoa. It can be concluded that Samoa's food system, supported largely by local production and trade, is impacted by deeply intertwined, multiple links, and a shift in one element affects the entire system. These cross-linkages require inclusive policy frameworks to cohesively address concerns with food security in Samoa.

6.3 The main issues surrounding access to food in Samoa

This section will address research question two and explores issues with food access in Samoa. Stephen (2001) and Botcher et al. (2020) emphasise the significance of food availability and, specifically, how this is linked with access to food as key components of food security. The Government of Samoa recognises that it continues to face the increasing challenges of food

insecurity as a result of economic, social, and environmental shocks (Government of Samoa, 2017). In this context, Holtz (2013) and Fensterseifer (2008) highlighted that the global economic crisis, social disparities, and impacts of climate change have exacerbated these food security challenges faced by countries such as Samoa. The impacts of recent crises have affected how Samoans have access to food (see Chapter 3). This study found that, like many other SIDS, Samoa is already experiencing challenges with accessing food evident in the decline of agricultural production, and as explained earlier, in the increase in dependence on imported food. In addition to these challenges, climate change is impacting food production. There is also a smaller emphasis placed on subsistence farming in Samoa. These multiple issues raise serious concerns about the future sustainability of food security in Samoa.

During interviews, and as mentioned above, a private sector representative explained that external shocks, such as the COVID19 pandemic, have resulted in delayed and unreliable trade of imported food causes, which is continuing disruptions in food supply to Samoa. This disruption has exacerbated the already existing situation. Furthermore, drawing on Medina-Hidalgo et al. (2020), who make a connection of extreme weather events posing a significant threat to food systems causing food shortages, Samoa is exposed to weather changes impacting local agriculture. Local production is impacted by climate change, as Barnett (2011) explained, in a detrimental way, with soil erosion, contamination of water sources, tropical cyclones, and drought, all undermining food productivity. This research has found that the climate change impacts on agriculture production were not adequately addressed within the ASP 2016. The obvious general decline in agricultural production of food highlights a weakening agriculture sector, exacerbated by forces of climate change. Climate change adds additional layers of pressure on the sector as it impacts the way available land is cultivated and changing weather conditions impacting soil fertility. However, the increased frequency of natural disasters, which authors such as (Barnett, 2011) have linked with climate change, can wipe out entire crops. Other impacting factors are urban sprawl, leading to decreased land space, and a loss of agricultural knowledge. Less food production leads to less availability for consumption.

Gaps in food availability is then filled with the increased number of imports of food products, which, as found in this study, is creating a continuous cycle of dependency on imported

foods in the Samoan diet. This dependency, together with external shocks and economic fluctuations in the global market, leading to unreliability in trade of food, especially during COVID19, has placed Samoa's food systems and consequently access to food in a vulnerable situation. Although significant emphasis in government planning was placed on the trade and agricultural sectors in Samoa, the document analysis revealed that specific actions and interventions towards addressing food security are almost non-existent (see Chapter 5). Further, the document analysis has found that the overall costs and the budget for the agriculture sector is significant, but there is no specific allocation for strengthening food access or any targeted interventions towards food production or trade. Initiatives to increase food production under the agriculture sector priority one accounts for just 4% of the entire sector budget allocation and highlights the low priority placed on food security related activities (Government of Samoa, 2016a, p. 5).

This study also found that Samoa's plans and approaches in the agriculture and trade sectors keep changing because there is a frequent turnover of people in leadership roles driving the implementation of policies. As a result, there is a loss of institutional knowledge of the overarching objectives, and consequently, the operationalization of these plans is often lost in the day-to-day practices. This is particularly challenging when resources mobilised to developing agriculture and trade policies are aimed at strengthening access to food by all Samoans are derailed by a change in leadership that then re-directed towards another area, placing a less priority on access to food as a result.

Authors, such as Glass and Newig (2019), Candel (2014), and Connell et al. (2020), have argued about the significance of governance structures and how the successful implementation of policies on food security relies largely on resource availability and mobilization. These are often limiting factors in the ability of countries to fully engage with strengthening food security. One participant, a trade representative, explained that available resources supporting the agriculture and trade sectors' objectives are largely provided through donor assistance. Furthermore, the participants working in the trade and private sectors both explained that a misalignment of policies between the sectors exists, which often results in duplication of policies. Multiple donors are focus their support on the same areas within the agriculture and trade sectors, which reflects an

ineffective use of resources. The private sector representative further explained that the limited resources available in Samoa create competition for resources between sectors. This research has found that food security related actions and policies are often not as highly prioritised as other pressing issues, such as health and education, which are often placed at the top. Interestingly, Guijt et al. (2021) and the UN Population Division (2020) both have strongly suggested that food security is key to transformative action to achieving all 17 SDGs. Therefore, one can say that prioritising food security within the agriculture and trade policy space in Samoa positively impacts other sectors such as health, education, social and economic, reaffirming the multidimensionality of food security as it links to food production, economic growth, and employment, poverty, and health in communities.

6.4 Conclusion

Data obtained throughout this research is reflective of the views and experiences of participants from the trade sector, agriculture sector, and the private sector, together with key issues that have emerged as part of the document analysis of the most recent agriculture and trade sector plans - ASP 2016 and TCM 2017. This section will address the research aim by summarising key results that have emerged as part of this research and then providing a conclusion.

Firstly, this study found that Samoa's current food structures and related policies are extremely vulnerable to external shocks that can cripple food systems and threaten food security. The declining local food production and the increased reliance on food imports are presenting challenges and are highlighting gaps that can impact the availability and access to daily food for all Samoans. The availability of imported food has become a disincentive for many to engage in local production. Therefore, a national shift towards a cash economy has also shifted consumption patterns from traditional, local staples to imported food, usually with low nutritional value increasing health risks for the general population. This trend will continue to increase. Having food access and food availability pinned more significantly on imports and trade, and because of the current uncertainty and growing global food shortages, caused by the COVID19 pandemic, the related global logistical challenges to trade will continue to impact future food security in Samoa.

Secondly, the relationship between food security and agriculture and trade is vital to strengthening Samoa's food system structures. Stronger systems are enabling food production towards healthy consumption and are facilitating the trade of adequate and nutritional food. However, several gaps exist in the Samoan agriculture and trade policy frameworks, including weak inter-sectoral linkages between the two sectors and a limited focus on strengthening food security within the actionable activities highlighted in the sector plans. There is less priority placed on food security related activities, and even fewer resources are mobilised towards addressing key concerns identified throughout this research report. The Government of Samoa would need to re-assess and strengthen its policy approach towards food security to be more cohesive and reflective of the challenges that threaten food security in Samoa against the vulnerabilities that are currently faced.

Thirdly, and related to the above, weak and misaligned policies on food security in Samoa mean that the implementation of policies is affected. From a sustainable development perspective, weak policies, and a lack of sound implementation, impact Samoa's commitment to achieving the SDGs and specifically SDG-2: End hunger. Capable and consistent institutional capacities are needed to fill the gap within the sectors and to contribute to more attention towards food security by the two sectors. What has become evident within the ASP 2016 especially, is that whilst a narrative on food security is present in Samoan policy, this narrative does not necessarily translate to specific actions towards addressing food security concerns in Samoa. This disruption is a serious problem within the sectors.

Lastly, the FAO (2008) and Barnett (2011) highlighted the multidimensionality of food security which emerged as a recurring theme throughout the literature and revealed that access to food is dependent on the strength of the agriculture and trade sectors that predominantly make up the existing food system structures in Samoa. Both local production and trade were recognised in this research as significant to food security in Samoa. As such, the policies within the two sectors have garnered much of the attention throughout this research highlighting the limitations within the policy space. The document analysis clearly drew the conclusion that food security was not adequately addressed within the trade and agricultural policies in Samoa.

To conclude, this research has explored access to food, as part of food security, through a sustainable development lens and examined the key impacts of agriculture and trade policies on food security in Samoa. Food security from a sustainable development perspective has been identified as key to the transformative actions required to achieve the SDGs. Achieving or strengthening food security through improved access to food, stable and efficient food systems must be supported by key targeted agriculture and trade policies. Suited and strong policies and systems can have a significant impact on making substantive progress in countries like Samoa towards achieving all SDGs. The significance of food security continues to be at the forefront of global discussions. This research report discussed and addressed the ever-changing food systems and related structures, bringing to the fore the importance of policies that not only drive and guide the agriculture and trade sectors in Samoa but also strategically intervene and mitigate the existing challenges, including those presented by external factors that impact food security in Samoa. The document analysis revealed gaps within the sector policies. These gaps suggest a vulnerable situation with regards to food system structures in Samoa. A severe climate or economic event could cause severe impacts on food security in Samoa, which is already in a vulnerable state. This report has uncovered that more emphasis is needed on food security in the Samoan policy context, requiring adequate resourcing and governance structures that interlink with other sectors of the economy. The nature of Samoa's food systems is increasingly determined by imported food, taking away the focus on locally produced food. Any disruptions in this traded food supply could result in severe impacts on the availability of food and people's ability to access this food.

This report has found that policies currently are not making any impact on strengthening food security in Samoa because of the focus on commercialization of non-staple food products and on exports. A key recommendation is that Samoan agriculture and trade sectors must revisit its policies. In doing so, both sectors should undertake a significant assessment and nationwide consultations to coordinate and formulate strategies to address food security concerns to strengthen access to food by linking in all the relevant sectors that have an impact on food security in Samoa. This research is by no means the answer to addressing Samoa's food security concerns fully. It does, however, open the discussion on emphasising food security within sector plans in Samoa and expanding the scope of the discussion to include key sectors such as health, education, infrastructure, environment, and technology mainstreaming food security within these individual

frameworks and establishing vital links between sectors. The SIDS Conference, 2014, identified the challenges threatening food security in the region, and Samoa needs to take seriously not only the current impacts, but look towards policies that can facilitate and enable strengthening food systems in Samoa to become sustainable for the future generations.

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APPENDICES

APPENDIX 1: PARTICIPANT INFORMATION SHEET

Research Purpose

The purpose of this research is to look at the intersections between food security and sustainable development with a specific focus on sustainable access to food. It explores the role of trade and agricultural policies on sustainable access to food, food systems, and cultural approaches to accessing food in Samoa. The study seeks to critically examine the role of trade and agriculture policies on food security in Samoa in efforts to address two key questions - **Q1. What are the relationships between food security and trade and agricultural policies in Samoa? Q2. What are the main issues surrounding access to food in Samoa?**

To explore further the interlinkages between access to food and trade and agricultural policy in Samoa, the research will include a (i) document analysis and (ii) semi structured interviews with stakeholder from the trade and agriculture sector in Samoa.

This research is the final component of a Masters in International Development program at Massey University through distance learning.

Who is associated with this Research

Justin LIMA Student /Researcher

Dr. Maria BOROVIK Supervisor / Senior Lecturer M.Borovnik@massey.ac.nz

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Professor Craig Johnson, Director (Research Ethics), email humanethics@massey.ac.nz.

Participant Involvement

Participating in this research will include a voluntary interview that will be undertaken via online platform which will be 45-60 minutes in duration. Questions will be semi-structured and relate to trade/agricultural policy and access to food. With your permission, I may follow up the interview with additional clarifying questions.

Collected Information and use

Once completed the information collected will be transcribed and analysed. The interview and transcripts will be seen by the supervisors and researcher. The full reports and any related data and material may be accessible upon request. A summary of the findings will also be made available to participants for information. For more information please contact Justin Lima.

APPENDIX 2: INTERVIEW GUIDE

Male Female

Ministry / Organisation:

Duration: 45mins - 1 hour

Introduction	Introduce the research aim and objectives and briefly describe the process for the interview that is about to take place. The purpose is to provide a brief ice breaker situation to ease the participant into the discussion topics of the interview.
Verbal consent	Following the introduction, the participant will be asked to re-confirm that they consent to participate in the interview (e.g.: Do you consent to participate in this interview?)
Background information	Invite the interviewee to provide a brief background of themselves. General background information about their current role/capacity and experience relating to food security and trade/agriculture policy formulation and implementation.
Food Security and Agriculture/Trade policy	<p>Introduce global food security issues and concerns with relation to food security and seek response from interviewee on their take on food security (global, regional, nationally).</p> <p>In your capacity working in agriculture/trade sectors, can you describe how existing policy takes into consideration food security for Samoa.</p> <ul style="list-style-type: none"> • Can you take me through policy formulation process undertaken in relation to access to food? • Can you describe the sector's approach to food security namely access to food? (May need to provide information on FAO's definition of access to food). • Are you aware of Samoa's status regarding SDG 2 – Zero Hunger and how your particular sector is contributing to achieving this especially in relation to policy?
Access to food	<p>How the current approach to food security in Samoa in the trade and agriculture sectors contribute to the general population having access to food.</p> <p>Trade policy/trade agreements impact on access to food for Samoan people.</p> <p>Agriculture sectors promotion of growing food in rural communities and the status of subsistence farming and the trends of food production in the past 5-10 years.</p> <p>NGO/Civil Society</p> <p>Food production and availability in communities</p> <p>Rural communities and access to food</p> <p>Involvement in policy formulation/consultation e.g trade and agriculture sector plan</p> <p>Access to local food vs imported staples (taro, rice, bread, etc)</p>
Challenges and constraints	<p>What are the policy constraints and challenges that impact ability of Samoa communities to access food?</p> <p>How do you think they can be improved/strengthened?</p> <p>What is the view of the NGOs and communities? <u>Farmers organisations and producers?</u></p>
Conclusion	Wrap up the discussions and summarise some of the key points raised. Re-confirm consent and intended use of the interview content with interviewee and the next steps for the research. Thank participant and end interview.