Connected to Country - the potential of bush tucker and Indigenous knowledge to support food and nutrition security within remote Aboriginal and Torres Strait Islander communities

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Abstract

Aboriginal and Torres Strait Islander peoples currently experience disproportionately high rates of food insecurity and poor nutritional well-being, especially within remote communities. This alarming situation serves in contrast to millennia of health and prosperity enjoyed by these nations under the traditional food system, prior to European invasion. In addressing these issues, this study explores the potential of traditional foods and food-specific Indigenous knowledge to support present-day food and nutrition security within remote Aboriginal and Torres Strait Islander communities.

In seeking to privilege the voices of First Peoples, this study draws on the Indigenous narrative tradition of yarning, guided by the concept of *dadirri*, or deep listening. Findings derived from yarns conducted with four Aboriginal Elders in the remote community of Tennant Creek are supported by an analysis of documents, submitted as part of the ongoing federal government-led inquest into food security and food pricing within remote Indigenous communities.

This study revealed that re-invigorating the everyday role of traditional foods and food-related Indigenous knowledge is recognised amongst Aboriginal and Torres Strait Islander peoples as being both an avenue for improving food and nutrition security, and a significant opportunity to advance the holistic health and wider aspirations of Indigenous communities. However, this study suggests that remote Indigenous communities' efforts to engage with the traditional food system and to upscale existing grassroots ventures focused on the production of bush foods and the transmission of food-specific Indigenous knowledge remain inhibited by a multitude of structural barriers within post-colonial Australia. Remote Indigenous communities believe external support from government and non-Indigenous Australia is required to maximise the inherent potential of the traditional food system to support food security, nutritional well-being and holistic health outcomes. However, this support remains largely absent. In order to realise these potentials, this study contends that food and nutrition security interventions within remote Indigenous communities must include greater community consultation, invest in the existing capabilities of First Peoples and augment the growth of community-led efforts to retain and rejuvenate food-related knowledge, practices, cultures and traditions.

Acknowledgements

I acknowledge, and am indebted to Australia's First Peoples, and the Traditional Owners of Country throughout Australia. This research recognises the enduring connection of Aboriginal and Torres Strait Islander peoples to their land, waters and culture. I pay respect to the Elders past, present and emerging.

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List of Acronyms

AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABA SIP	Aboriginals Benefit Account Stores Infrastructure Program
ABS	Australian Bureau of Statistics
AHAC	Anyinginyi Aboriginal Health Corporation
AHRC	Australian Human Rights Commission
AIHW	Australian Institute of Health and Welfare
ANAO	Australian National Audit Office
APH	Parliament of Australia
APF	Asia Pacific Forum
ARIA+	Accessibility and Remoteness Index of Australia
CFB	Current Food Basket
COAG	Council of Australian Governments
FAO	Food and Agricultural Organisation
HFB	Healthy Food Basket
IPA	Indigenous Protected Areas
MBS	Market Basket Survey
NATSINSAP	National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NHMRC	National Health and Medical Research Council
OHCHR	Office of the United Nations High Commissioner for Human Rights
SDGs	Sustainable Development Goals
SRS Grants	Strengthening Remote Stores Grants
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNSW	University of New South Wales
WCED	World Commission on Environment and Development

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manjawurrmagi ngindaji
thangani. Thangani
gurrijbarra nganggawarra
buga yani u, yulngarrawu.
Binarri yawurrmagi
biyirranggu thangani,
Thirrili ngarri warawirragi,
Thirrili ngarri wilawirragi,
Ganbawirragi ngindaji
thangani, Yarrangi dinyjili.
Ngindaji thangani jurali nhi,
Winyiwunggurragi yarrangi
nhingi thangani.

Our ancestors that came
before, created this
knowledge. Our voices
carry this knowledge to
give to our children to carry
forever. They must learn
their knowledge so they
can stand and speak with
strength. So they can follow
and know this wisdom. This
is our umbilical chord to life.
This knowledge is from long
ago, listen to our voices.

June Oscar AO,
Aboriginal and Torres Strait Islander Social Justice Commissioner,
Bunuba language

Chapter One: An Introduction

1.1 Setting the Scene: Research Context and Motivation

The written piece so adeptly penned by June Oscar underlines the centrality of knowledge in the identity of the world's oldest living culture (Flood, 2006), which is thought to have inhabited what is now known as Australia for over 65,000 years (Janke & Sentina, 2018, p. 15). During this long tenure as the custodians of their lands and seas, Aboriginal and Torres Strait Islander nations and language groups have developed unique and sophisticated systems of understanding based on their innate relationship with the environment, which have been transmitted between generations (Janke & Sentina, 2018). Yet, Oscar's piece also serves as a rousing reminder that this knowledge remains overwhelmingly ignored and cast aside as illegitimate and irrelevant within contemporary Australia. For me personally, as with the many other non-Indigenous allies that stand beside me, this is an incredibly problematic reality. Spurred on by Oscar's call to listen to the voices of Aboriginal and Torres Strait Islander peoples, I embarked on this research journey with the simple assumption that there is still so much that we can learn from the First Peoples of Australia, alongside the unwavering conviction that acknowledging and respecting these voices is our fundamental responsibility as inhabitants of stolen lands and seas.

Nowhere does the pressing need to value Indigenous ways of knowing and being retain greater significance than within the context of Aboriginal and Torres Strait Islander health and wellbeing. To most, Australia is renowned as a global beacon of privilege and prosperity. As Table 1.1 below illustrates, Australia ranked sixth overall in the 2019 United Nations Development Programme (UNDP) Human Development Index.

-	Rank ▼	Country	Human Development Index (HDI) (value)	Life expectancy at birth (years) SDG3	Expected years of schooling (years) SDG 4.3	Mean years of schooling (years) SDG 4.6	Gross national income (GNI) per capita (PPP $) SDG 8.5
	1	Norway	0.954	82.3	18.1	12.6	68,059
	2	Switzerland	0.946	83.6	16.2	13.4	59,375
	3	Ireland	0.942	82.1	18.8	12.5	55,660
	4	Germany	0.939	81.2	17.1	14.1	46,946
	4	Hong Kong, China (SAR)	0.939	84.7	16.5	12.0	60,221
	6	Australia	0.938	83.3	22.1	12.7	44,097
	6	Iceland	0.938	82.9	19.2	12.5	47,566
	8	Sweden	0.937	82.7	18.8	12.4	47,955
	9	Singapore	0.935	83.5	16.3	11.5	83,793
	10	Netherlands	0.933	82.1	18.0	12.2	50,013

Table 1.1: UNDP Human Development Index ranking 2019 (Source: UNDP, 2019).

The country currently hosts the seventh highest life expectancy at birth (UNDP, 2019), a measure indicative of a population's health (Biddle & Taylor, 2012). However, for the estimated 798,400 Aboriginal and Torres Strait Islander peoples (ABS, 2018, para. 1), who make up just 3.3% of the Australian population (ABS, 2018, para. 3), this snapshot of prosperity downplays the health crisis facing these communities. As Figure 1.2 illustrates, the life expectancy gap between First Peoples and non-Indigenous Australians is estimated to be 8.6 years less for males and 7.8 years less for females (Australian Government, 2020, p. 78).

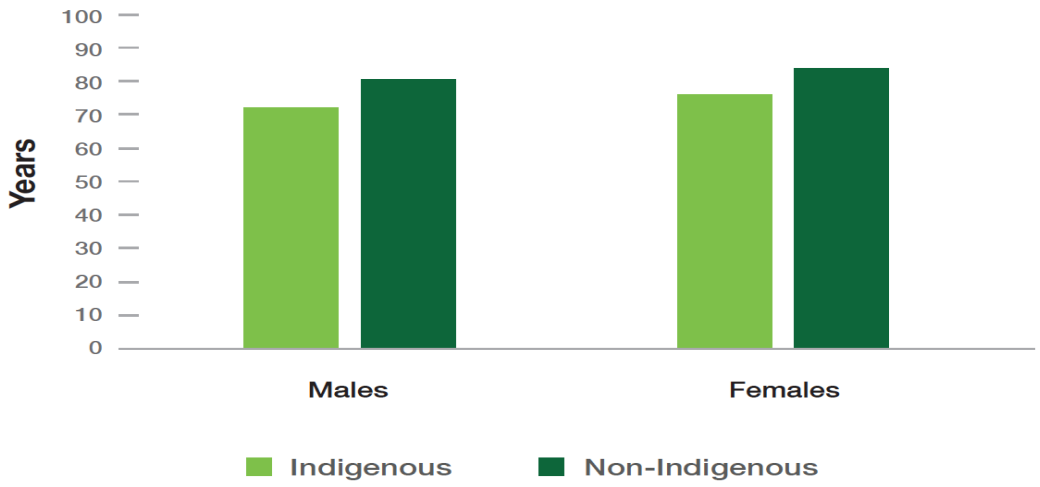

Figure 1.1: Life expectancy of Aboriginal and Torres Strait Islander peoples 2015-17 (Source: Lowitja Institute, 2020).

Additionally, the Australian Institute of Health and Welfare (AIHW) (2016) estimates the burden of disease to be 2.3 times higher amongst Aboriginal and Torres Strait Islander peoples (p. 15). Recent surveys report that 46% of First Peoples suffer from at least one chronic condition such as cardiovascular disease, cancer or diabetes (ABS, 2019a, para. 1).

Over two centuries after the arrival of European invaders to Australian shores, the reverberations of a virulent colonial history and the ongoing disenfranchisement of First Peoples within Australia's social, political and economic structures, is increasingly acknowledged as underpinning this drastic disparity in health (Holland, 2018; Sherwood, 2013). Driven by widespread calls to eliminate this disparity, the *Close the Gap Statement of Intent* was signed between Australia's federal government and Aboriginal and Torres Strait Islander peoples in 2008. Later in 2008, the Council of Australian Governments (COAG) developed and committed to the *Closing the Gap Strategy*, which endeavoured to achieve health and life expectancy equity by the year 2030.

Despite twelve years of action, the aforementioned data provide a glimpse into the ineptitude of Australia's federal, state, and territory governments in their attempts to 'close the gap'. A ten-year review released by the *Close the Gap Campaign Steering Committee* in 2018 highlighted that the 25-year strategy was effectively abandoned after just five years (Holland, 2018). Just two of the strategy's seven original targets remain on track to be achieved within the intended timeframe (Lowitja Institute, 2020). Such little progress justifies the need for a refreshed and rethought approach. The 2020 Close the Gap report prepared by the Lowitja Institute (2020) for the *Close the Gap Campaign Steering Committee* makes a number of strong recommendations to government. These recommendations demand increased partnership between governments and First Peoples and underline the pressing need to invest in the existing strengths, capabilities and cultures of Indigenous nations. The report calls for Aboriginal and Torres Strait Islander-driven health policy and programmes, which are respondent to the cultural determinants of health, built on Indigenous ways of knowing and being, that restore and maintain traditional practices and connection to Country, and which ultimately foster empowerment and self-governance amongst First Peoples (Lowitja Institute, 2020). These calls mirror the recently forged Uluru Statement from the Heart (n.d.):

> We seek constitutional reforms that will empower our people and take a rightful place in our own country. When we have power over our destiny our children will flourish. They will walk in two worlds and their culture will be a gift to their country (para. 7).

Whilst not listed as a key target as part of the Closing the Gap strategy, achieving food security and nutritional well-being within Aboriginal and Torres Strait Islander communities is at its core a health issue. Food insecurity and poor nutrition is proven to underpin the health disparities experienced by First Peoples (see Chapter 3). Yet beyond this relationship, this study will illuminate that the dire state of food and nutrition security currently facing First Peoples serves as a microcosm of the broader picture of Aboriginal and Torres Strait Islander health. Not only does food and nutrition insecurity within Indigenous communities mirror the broader health crisis in that it demonstrates blatant disparity with non-Indigenous Australians. The food and nutrition insecurity experienced within Indigenous communities also mirrors the broader health crisis facing First Peoples in its close relationship to Australia's dark colonial past, in its complex web of social determinants, and in the shortcomings of federal, state and territory governments to achieve meaningful change. Therefore, this research echoes the strong calls made by the 2020 Close the Gap report within the context of food and nutrition security. This thesis emphasises that the diverse cultures, agency, and traditional ways of knowing and being possessed by Aboriginal and Torres Strait Islander nations, are abundant with great potential for affecting potent progress, or as Bruce Pascoe (2013) describes it, the ability of the "past to inform the future" (p. 155).

1.2 Research Aim, Questions and Objectives

The aim of this research is to explore the potential of bush tucker and Indigenous knowledge for supporting food and nutrition security in remote Aboriginal and Torres Strait Islander communities. The research is broken down into three primary research questions, each paired with a number of key objectives as outlined below.

Research Question 1: What is the current state of food and security nutrition within remote Aboriginal and Torres Strait Islander communities?

- *Objective 1.1:* Define food and nutrition security
- *Objective 1.2:* Provide an overview of food and nutrition security within remote Aboriginal and Torres Strait Islander communities
- *Objective 1.3:* Discuss the key determinants of food and nutrition security within remote Aboriginal and Torres Strait Islander communities

Research Question 2: How do Aboriginal and Torres Strait Islander peoples draw on bush tucker and Indigenous knowledge to support their food and nutrition security?

- *Objective 2.1:* Describe the traditional food system of Australia's First Peoples and the role of bush tucker and Indigenous knowledge within this system
- *Objective 2.2:* Explore the enduring function of bush tucker and Indigenous knowledge as part of First Peoples' efforts to achieve food and nutrition security within Indigenous communities
- *Objective 2.3:* Explore the trajectory of the colonial impact on the ability and willingness of First Peoples to draw on bush tucker and food-specific Indigenous knowledge

Research Question 3: How has traditional food and Indigenous knowledge been acknowledged in relation to food and nutrition security?

- *Objective 3.1:* Explore the relationship between Indigenous knowledge and development
- *Objective 3.2:* Explore the relationship between traditional foods and food-specific Indigenous knowledge with food and nutrition security literature
- *Objective 3.3:* Explore whether, and to what extent, recent Australian government-led policies, programmes and inquiries acknowledge the potential of bush tucker and Indigenous knowledge to support food and nutrition security

- *Objective 3.4:* Explore whether, and to what extent, Indigenous communities continue to recognise the potential of bush tucker and Indigenous knowledge to support their food and nutrition security

1.3 Contextualising Key Terminology

The following section contextualises key terminology that will appear throughout this thesis. Following the overall theme of this research, it was important that the terminology was culturally appropriate and embedded in utmost respect for Aboriginal and Torres Strait Islander peoples.

The absence of a globally-accepted definition for 'Indigenous peoples' reflects the rights and aspirations of all Indigenous peoples for self-identification and self-determination. The United Nations adopts a working definition, developed as part of the influential Martinez Cobo Study:

> Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system (as cited in Office of the United Nations High Commission for Human Rights [OHCHR] & Asia Pacific Forum of National Human Rights Institutions [APF], 2013, p. 6).

The Indigenous peoples of Australia are those who descend from Aboriginal and/or Torres Strait Islander ancestors, who identify as Aboriginal and/or Torres Strait Islander, and who are accepted as such within the community in which they live or have lived (University of New South Wales [UNSW], 1996). The term *Indigenous Australian* is often considered by these communities to be too generic. *Aboriginal and Torres Strait Islander peoples* will therefore be used in this study to refer to these two distinct cultural groups collectively (Australian Institute of

Aboriginal and Torres Strait Islander Studies [AIATSIS], 2018). *Australia's First Peoples* or *First Peoples* will also be employed to facilitate variety in my writing. The phrase *remote Indigenous communities* will be used to refer to remote communities home to Aboriginal and Torres Strait Islander peoples to ensure brevity. With an estimated 145 autonomous nations and language groups currently spread throughout Australia, identities will be linked to these geographically specific groups where possible (Australian Human Rights Commission [AHRC], 2016; AIATSIS, 2018; UNSW, 1996).

Another recurring term throughout this thesis is that of *Country.* Country is used in Aboriginal Australian English (AAE) as both a common and proper noun. For Aboriginal and Torres Strait Islander Peoples, Country is spoken to and of, in the same way a person would be, as a living and breathing entity. Country is more than just land, some coastal communities speak of sea Country, whilst others talk of sky Country (Rose, 1996). Datiwuy Elder, Aunty Laklak Burarrwanga, offers a particularly eloquent definition of Country:

> Country has many layers of meaning. It incorporates people, animals, plants, water and land. But Country is more than just people and things, it is also what connects them to each other and to multiple spiritual and symbolic realms. It relates to laws, customs, movement, song, knowledges, relationship, histories, presents, futures and spirit beings. Country for us is alive with story, law, power and kinship relations that join not only people to each other but link people, ancestors, place, animals, rocks, plants, stories and songs with land and sea (Burarrwanga et al., 2013, p. 54).

The concept of Country is innately linked to the term *Traditional Owner/s*, which will be used in this study to refer to Aboriginal and Torres Strait Islander peoples who identify with and remain spiritually affiliated to a specific region, site, or tract of Country (Edelman, 2009; Scherrer & Doohan, 2014). Traditional Owners are the primary guardians of their Country and share a spiritual responsibility and obligation to care for the "health and wellbeing of that country" (Scherrer & Doohan, 2014, p. 1008).

Whilst this research is tailored towards 'remote' Aboriginal and Torres Strait Islander communities, the term 'remote' is not used in an attempt to differentiate between the 'Aboriginality' of First Peoples living in different areas of Australia (UNSW, 1996). Instead, remoteness is employed as a geographical category based on access to a range of services, and the time necessary to travel to centres that provide these services (Australian Institute of Health & Welfare, 2004). This study will use the Accessibility and Remoteness Index of Australia (ARIA+), which divides Australia into five classes of remoteness as seen in Figure 1.1 below.

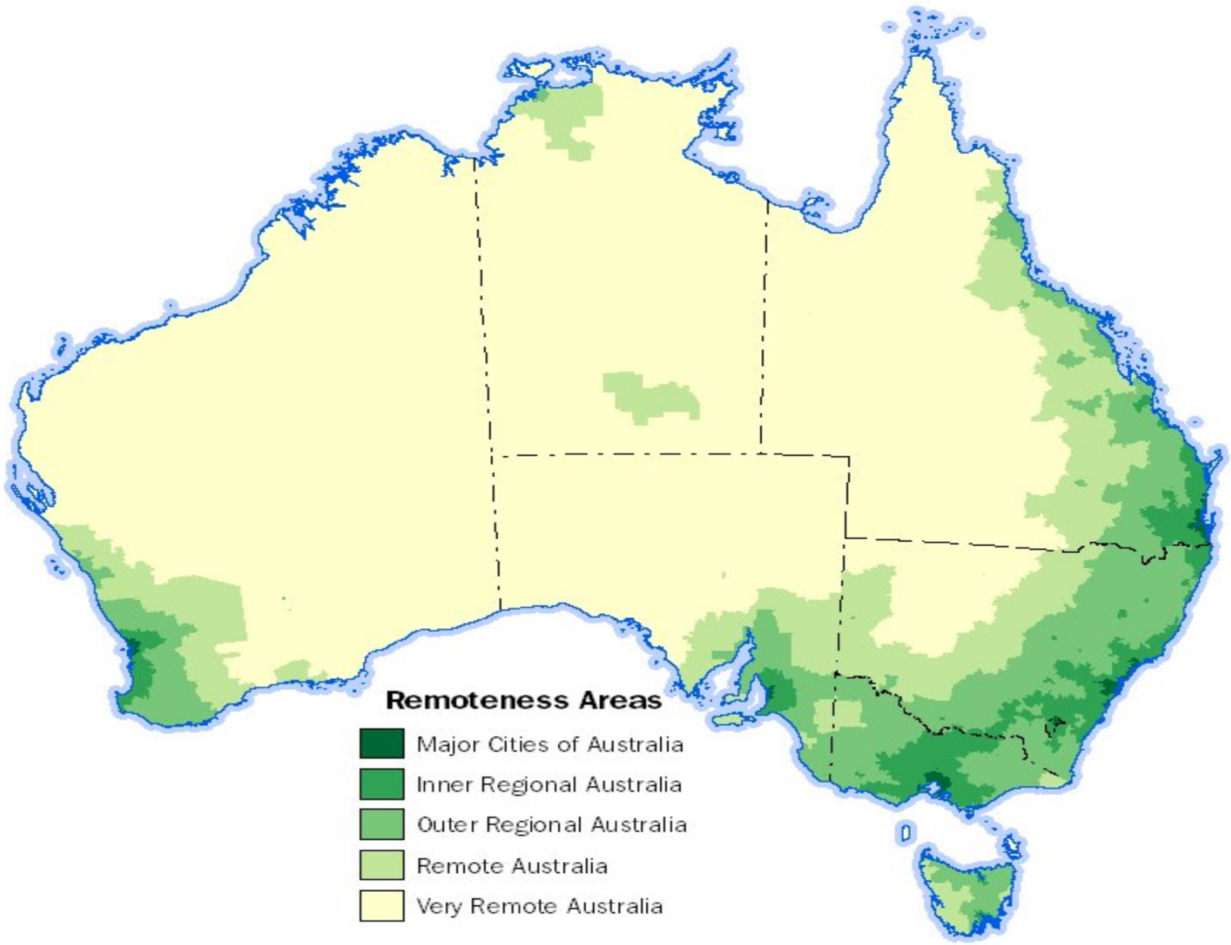

Figure 1.2: Australia ARIA+ remoteness map (Source: ABS, 2020).

Within the context of this research, the word 'remote' collectively refers to both *Remote Australia* and *Very Remote Australia* (ABS, 2020). According to data derived from the 2016 Census, 18.6% of Australia's total Aboriginal and Torres Strait Islander population reside in

remote or very remote areas (see Table 1.2) (ABS, 2018). Using this classification system, Tennant Creek is defined as a *very remote* area.

	Aboriginal and Torres Strait Islander	Non-Indigenous	Total
Remoteness Areas	**%**	**%**	**%**
Major Cities	37.4	72.7	71.6
Inner Regional	23.7	17.8	18.0
Outer Regional	20.3	8.0	8.4
Remote	6.7	1.0	1.2
Very Remote	11.9	0.5	0.8

Table 1.2: Estimate resident Aboriginal and Torres Strait Islander population by remoteness 2016 (Source: ABS, 2018)

Finally, the terms 'bush tucker,' 'bush foods and 'traditional foods' will be used throughout this thesis to refer to plant and animal species that are endemic to Australia, which have been extensively utilised as part of the pre- and post-contact diets of Australia's First Peoples (Adams et al., 2018; Ferguson et al., 2017). The following section outlines the structure of this thesis and provides a chapter overview.

1.4 Thesis Structure and Chapter Overview

This thesis is divided into eight chapters. Chapter 1 has sought to set a contextual landscape and provide the key motivations for this research, whilst also introducing the research aims, questions and objectives that guide this thesis, alongside key terminology. Chapters 2, 3 and 4 consist of literature reviews, which advance the conceptual and contextual landscape for this research. Chapter 2 introduces the idea of Indigenous knowledge and outlines the scholarly space created for Indigenous knowledge within development discourse by post-development and post-colonial scholars. The chapter also discusses the emergence and recognised value of Indigenous knowledge within development discourse, as well as the challenges and potential futures for Indigenous knowledge within the development sphere. Chapter 3 conceptualises the evolving concept of food and nutrition security, before providing an overview of food and nutrition security within remote Aboriginal and Torres Strait Islander communities. The chapter also

explores literature from both global and Australian contexts, which links traditional foods and Indigenous knowledge with food and nutrition security and concludes by introducing the concept of food sovereignty. Chapter 4 outlines the pre-contact economy and traditional food system of Australia's First Peoples, before providing an account of the colonial impact on this food system. The chapter then discusses the enduring impacts of European invasion within the post-colonial food system utilised today by Indigenous communities.

Chapter 5 then outlines the methodology as well as the specific methods employed for this study, whilst also discussing the history of harmful research on Indigenous peoples and providing a deep personal reflection regarding my position as a non-Indigenous researcher. Chapter 6 begins by providing a historical overview of Tennant Creek, the remote township case studied as part of this research. The chapter then reveals the findings derived from 'yarns' with four Indigenous Elders in the community. Chapter 7 begins with an overview of recent government-led policies and programmes related to the food security and nutritional well-being of Australia's First Peoples. The chapter then presents the findings from an analysis of twenty documents, submitted as part of the ongoing federal government-led inquiry into food security and food pricing in remote communities across Australia. Chapter 8 discusses the findings from both the Tennant Creek case study and the document analysis in relation to the literature reviewed in the first three chapters. The chapter uses this discussion as a springboard to draw final conclusions and makes recommendations for future policy and programme efforts.

Chapter Two: Conceptualising Indigenous Knowledge within Development

2.1 Introduction

Systems of Indigenous knowledge have existed for millennia, and yet, only recently has Indigenous knowledge become a topic of relative prominence within development theory and practice. The following chapter delves into this complex journey and explores the relationship between Indigenous knowledge and development in response to *Objective 3.1.* Whilst no brief overview could encapsulate the diversity and dynamism associated with Indigenous knowledge entirely, this chapter begins by providing an elementary understanding of Indigenous knowledge. The space created by post-development and post-colonial scholars for Indigenous knowledge to emerge as a topic of interest within development theory and practice is then discussed. This chapter will then explore the recognised value and potential offered by Indigenous knowledge systems within overarching efforts that focus on achieving participatory, empowering and sustainable development interventions. Drawing on examples from global and Australian contexts, this chapter also examines the challenges that continue to hinder the recognition of the inherent power and potential of Indigenous knowledge within development theory and practice. Finally, this chapter briefly explores a potential resolution for these challenges.

2.2 Understanding Indigenous Knowledge

Indigenous knowledge can be understood as consisting of all knowledge that is exclusive to a specific Indigenous locality, culture or community (Dentzau, 2019; Sillitoe, 2006; Warren, 1991). Indigenous knowledge is a cumulative knowledge system, derived from the collective multi-generational experiences, observations, skills and understandings of Indigenous peoples. These systems of knowledge share an inseparable relationship with Indigenous worldviews, which view knowledge as “holistic, cyclic, and dependent on relationships and connections to

living and non-living beings and entities" (Hart, 2010, p. 3). As Hill (2000) asserts, Indigenous knowledge derives much of its power from combining physical, metaphysical and spiritual realities in creating a holistic and empirical knowledge framework. Indigenous knowledge informs local-level decision making and the traditions, identities, and behaviours of Indigenous peoples (Grenier, 1998; Pilgrim, Cullen, Smith & Pretty, 2008; Sillitoe, 2006; Warren, 1991). Whilst retaining its unique character, Indigenous knowledge is a dynamic and constantly evolving system that borrows from external sources of knowledge and adapts to shifting conditions (Battiste, 2005; Grenier, 1998; Sillitoe, 2006). Although the "quantity and quality of the IK [Indigenous knowledge] that individuals possess vary," according to factors such as age, gender and economic status (Grenier, 1998, p. 2), women and Elders perform an especially pivotal role in retaining and transmitting this knowledge (Magni, 2017). Indigenous knowledge is stored in the memories and practices of Indigenous peoples, and is disseminated between generations via word-of-mouth, observation and other culturally significant narrative forms (Grenier, 1998; Pilgrim et al., 2008; Warren, 1991).

For Australia's First Peoples, Indigenous knowledge is used collectively to refer to the many knowledge systems of Aboriginal and Torres Strait Islander nations, which have been developed over millennia (Janke & Sentina, 2018) (see Chapter 1). As Goodall (2008) asserts, First Peoples have continued to adapt their unique knowledge systems to changing circumstances, creating ways of understanding that remain connected to their original locality, whilst also responding to new environments. The Indigenous knowledge of Australia's First Peoples is entrenched in complex systems of customary lore, described by Janke and Sentina (2018) as "the body of rules, values and traditions that are accepted by the members of an Indigenous community as establishing standards or procedures to be upheld in that community" (p. 20). For First Peoples, the lore governs the roles and responsibilities of community members regarding the custodianship, transmission and use of knowledge, which is intrinsically tied to their specific obligations as the Traditional Owners and guardians of Country (see Chapter 1) (Ayre & Mackenzie, 2013; Ens, Finlayson, Preuss, Jackson & Holcombe, 2012; Janke & Sentina, 2018). Australia's First Peoples believe that the lore, their ancestors and their Country were birthed by spiritual forces or creatures during a period known as the Dreaming, which continue to govern their communities with a user-guide for harmonious existence between human and nature

(Jackson, Storrs & Morrison, 2005; Norris & Hamacher, 2009). In later chapters, an appreciation of the deeply spiritual relationship between First Peoples and their Country will prove vital in comprehending not only the potential of traditional knowledge and foods to support food and nutrition security, but also in recognising the cultural significance of interventions that draw upon these local resources. The following section will unpack the scholarly space created for Indigenous knowledge to emerge as a considerable topic of interest within the context of development interventions.

2.3 A Scholarly Space for Indigenous Knowledge within Development

The budding interest that Indigenous knowledge has received within development has been aided by alternative schools of thought, which have emerged to critique and challenge the hegemonic standing of mainstream development discourse and practice. The following sections will provide an overview of post-development and post-colonial thinking and illuminate how these sets of ideas have created avenues for Indigenous knowledge systems to emerge within development theory and practice. Importantly, post-development and post-colonial thinking will feature as lenses of analysis in later chapters.

2.3.1 Post-development Thinking and the Search for Alternatives

In the late 1980s, a body of literature emerged that united undertones of discontent from the fringes of development theory and practice (Lie, 2008; McGregor, 2009). Early post-development scholars illuminated the systemic failure of mainstream development to lift the so-called 'third world' out of poverty and disadvantage, but perhaps more crucially, their growing concerns with the motives and ethos of development theory and practice (Pieterse, 2000). As Sachs (1992) contends, "it is not the failure of development which has to be feared, but its success" (p. 3). Rather than a pre-destined and desirable process, post-development frames development as a powerful hegemonic discourse, rooted in the Western philosophies of capitalim, material abundance and modernity (Kiely, 1999; McGregor, 2009; Ziai, 2017). Post-

development scholars assert that the development discourse is maintained by a Eurocentric system of institutional relations, which privileges Western expert knowledge and technocratic reasoning. This dominant discourse subsequently omits the voices of marginalised, disenfranchised and minority groups, including Indigenous peoples (Escobar, 1997; McGregor, 2009). Thus, development is viewed as a homogenising rather than an emancipating force, which quashes diverse ways of knowing and being, such as that represented by Indigenous knowledge systems (McGregor, 2009).

Early post-development formed an outright rejection of development in its most conventional application (Kiely, 1999; Ziai, 2017). However, these scholars were met with heavy criticism for this problem-oriented stance, which critics believed failed to offer solution-oriented alternatives to mainstream development efforts (Matthews, 2004; McGregor, 2009; Ziai, 2017). More recently, some post-development scholars have shifted their dismissive undertones towards hope and opportunity, with a particular focus on the power of human agency found within the social margins to shape alternative pathways to development (McGregor, 2009). As McGregor (2009) asserts, "the protection and promotion of local cultural priorities and beliefs is seen as critical in much post-development writing as it is here that alternative imaginaries and counter-hegemonic beliefs reside" (p. 1697). Hopeful post-development has thus provided a platform for Indigenous knowledge systems to challenge the Western prejudices, expert knowledge and hegemonic disposition of the mainstream development discourse. This quest to uplift the forgotten voices of Indigenous minorities within the development sphere is similarly mirrored in post-colonial thinking, which is discussed in the following section.

2.3.2 Post-colonial Thinking and the Hierarchisation of Knowledge

Post-colonial scholars strongly assert that "the colonial aftermath does not yield the end of colonialism" (Gandhi, 2018, p. 7). Colonialism has reared its power in a post-colonial world through the hierarchisation of knowledge, values and truths, which works to solidify what Said (1989) labels the "dreadful secondariness" (p. 207) of Indigenous peoples and cultures. Post-colonial scholars are particularly interested in the idea of knowledge as power (McGregor, 2009), and critique the "dominant discourses of imperial Europe…, which are unconsciously

ethnocentric, rooted in European cultures and reflective of a dominant Western worldview" (McEwan, 2008, p. 137). The colonial hierarchisation of knowledge proliferates development theory and practice. As Battiste (2005) affirms, the privileged position of Eurocentric thought in development has traditionally asserted that progress is only a destiny of those who uphold European ways. Subsequently, the lifestyles, cultures and knowledges of Indigenous peoples have been disregarded as primitive and deemed obedient to Western influence, and the top-down technocratic development paradigm (Battiste, 2005; Sillitoe & Marzano, 2009).

However, like recent strands of hopeful post-development, post-colonial thought can be utilised as a lens that transcends critiques of conventional development. In contrast, post-colonial thinking seeks to understand and inspire alternative pathways to development based on a plurality of perspectives, truths and knowledges that contest the dominant colonial discourse (McEwan, 2008; Simon, 2006; Tripathy, 2009). Post-colonial thought has created a space for the devalued voices of Indigenous peoples work to interrogate, destabilise and ultimately reconstruct Western knowledge as the foundation of dominant development discourse (Battiste, 2004; Tripathy, 2009).

2.4 The Emergence and Recognised Value(s) of Indigenous Knowledge in the Development Landscape

Augmented by the rise of post-development and post-colonial thinking, the inclusion of Indigenous knowledge systems as part of development initiatives has increased, especially as practitioners seek participatory, empowering and sustainable outcomes. The provision of knowledge from Indigenous peoples offers a form of invaluable local participation, which is entrenched in local context and concerns. Indigenous knowledge enhances the understanding of external development professionals, who typically provide a problem analysis isolated from context, and an oversimplified technical fix based on scientific reasoning (Briggs & Sharp, 2004; Grenier, 1998; Sillitoe, 2006). Development interventions that include Indigenous knowledge are instead respectful to the ideas, sensitivities and aspirations of the communities that they impact (Briggs & Sharp, 2004; Sillitoe, 2006). Beyond aiding in the success of outside-led interventions,

drawing upon Indigenous knowledge also works to empower marginalised and minority communities, who feel valued and respected as key contributors within the development process (Sillitoe, 2006). As both Gorjestani (2001) and Senanayake (2006) posit, Indigenous knowledge constitutes one of the only resources that these often-disempowered communities maintain complete control over. In addressing the issues facing their communities using their own knowledge systems, the ability of Indigenous peoples to take ownership and governance over their future livelihoods is extended (Gorjestani, 2001; Gorjestani, 2008; Sillitoe, 2006). Furthermore, the utilisation of Indigenous knowledge as part of development interventions can support equitable partnership, communication and cultural understanding between Indigenous and non-Indigenous parties, including government and outside organisations (Gorjestani, 2008; Sillitoe, 2006; Warren, 1991).

Indigenous knowledge has similarly surfaced as a revered topic within the overarching sustainability debate, which emerged as a mainstay within the development discourse following the World Commission on Environment and Development's (WCED) Brundtland Report. Published in 1987, the Brundtland Report first defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 15). More recently, sustainable development has become the focal point of the United Nations 2030 Agenda, an international political framework comprising of 17 Sustainable Development Goals (SDGs) (Sandoval-Rivera, 2020), which endeavour to achieve "a balance between social, economic and environmental dimensions" (Yap & Watene, 2019, p. 5). Importantly, many of the specific sub-foci of sustainability, including natural resource management, biodiversity, climate change and ecology, benefit from the cumulative experiential knowledge developed by Indigenous peoples in relation to their natural environments over time (Briggs, 2005; Kothari, 2007; Magni, 2017; Sandoval-Rivera, 2020; Senanayake, 2006). As Magni asserts, this multigenerational experience has "allowed many of these communities to maintain a sustainable use and management of natural resources, protect their environment and strengthen their resilience, whilst facing new and complex circumstances" (p. 438).

Although Indigenous knowledge remains underexplored and underappreciated within Australia compared to other countries home to Indigenous peoples, it has gained traction within Australia's quest for sustainable interventions (Green et al., 2010). For example, the diverse seasonal calendars designed by First Peoples, which constitute a comprehensive source of phenological knowledge, have become valuable in informing climate change monitoring and adaptation efforts, as well as resource management strategies (Green et al., 2010; Woodward, Jackson, Finn & McTaggart, 2012). The ability of Aboriginal and Torres Strait Islander peoples to live harmoniously with their environments, has similarly received recognition within the federal government's natural resource management strategy. This is illuminated by the inclusion of programmes such as *Caring for Country*, which employs and utilises the knowledge of Indigenous rangers and aims to increase the capacity of First Peoples to manage their natural resources through collaborative partnerships with Aboriginal and non-Indigenous agencies (Ens et al., 2012, p. 101). The *Indigenous Protected Area* (IPA) programme similarly seeks to build the capacity of First Peoples to manage their lands and seas, offering financial support to Traditional Owners and championing community-endorsed processes in order to achieve community-oriented objectives (Ayre & Mackenzie, 2013; Ens et al., 2012; Jackson et al., 2005; Laundine, 2009).

The success of examples like the IPA programme highlights that Indigenous knowledge can guide development that meets the cultural, social and political aspirations of First Peoples, and the broader development goals of mainstream Australia. As such, these interventions constitute an exemplar for what can be achieved as part of projects and programmes focused on improving Aboriginal and Torres Strait Islander food and nutrition security. However, a number of barriers continue to inhibit these aspirations becoming a reality. The challenges facing Indigenous knowledge within development theory and practice will be explored in the following section. This exploration provides important context that will be drawn upon in later chapters when exploring whether and to what extent Indigenous knowledge is acknowledged in government-led efforts to improve food and nutrition security in remote Indigenous communities across Australia (see *Objective 3.3*).

2.5 The Challenges Facing Indigenous Knowledge in the Development Landscape

Despite receiving increased attention within development discourse, the likelihood of Indigenous knowledge guiding meaningful interventions remains contested (Briggs, 2005). One key obstacle is the tendency of practitioners and scholars to magnify perceived tensions between the epistemological pillars of Indigenous and Western scientific knowledge. This opposition has become known as the binary divide (Briggs, 2005; Briggs, 2014). The binary divide positions Western science as an advocate for systematic and deductive investigation in order to uncover universal truths, which can be applied to remedying issues across contexts (Agrawal, 1995; Dentzau, 2019; Sillitoe, 2006). Western scientific knowledge is often concerned with testing hypotheses and revealing compelling causation based on quantitative data in controlled environments (Briggs, 2014; Dentzau, 2019). As post-colonial scholars suggest, the hegemonic position of Western science within the development discourse often works to discredit traditional knowledge systems, placing these systems at the opposite end of the knowledge continuum (Briggs, 2005). Proponents of the binary divide thus paint Indigenous knowledge as subjective, illogical and pervaded by folklore. Similarly, Indigenous knowledge is denounced as being absent of rigour and accuracy, and too embedded in local context to offer meaningful solutions across global contexts (Briggs, 2014; Parsons, Nalau & Fisher, 2017). The enduring gaze of scepticism and criticism cast over Indigenous knowledge works to diminish the inherent strengths of these unique systems. At the same time, this scepticism allows Western scientific knowledge to retain its position as the primary voice of reasoning within mainstream development discourse.

As Sillitoe (1998) asserts, the hegemonic position of scientific tradition means that Indigenous knowledge "needs to be conveyed to scientists in such a way that they can appreciate its relevance" (p. 225). Therefore, Western development 'experts' regularly cherry-pick fragments of these traditional knowledge systems (Dentzau, 2019; Parsons et al., 2017), especially those offering technical solutions that are consistent with the familiar development paradigm (Briggs & Sharp, 2004). These tendencies subsequently remove the potential for Indigenous knowledge

to challenge the hegemonic assumptions of Western science and Eurocentric worldviews (Briggs & Sharp, 2004).

In addition, many development practitioners and theorists resist romanticising Indigenous knowledge due to various practical concerns (Sillitoe & Marzano, 2009). As Briggs (2013) states, interventions involving Indigenous knowledge often require extended timeframes in order to understand and meaningfully apply this complex knowledge. These timeframes serve in contrast with the mindset of mainstream development agencies, who often require the delivery of predefined outcomes on a stringent time frame (Sillitoe & Marzano, 2009). An additional hurdle is presented due to the fact that many organisations and agencies are wary to champion alternative approaches. These organisations often operate within a highly politicised environment, where they must appease institutions and donors who maintain their own development ideologies and political agendas (Sillitoe & Marzano, 2009).

Within an Australian context, the application of Indigenous knowledge within the development space remains hindered by the enduring lack of trust between First Peoples and non-Indigenous Australians. The binary divide thrives within Australian, as many non-Indigenous Australians possess an inherent distrust for Indigenous knowledge systems due to colonial conceptualisations of this knowledge as being invalid and unreliable in comparison with Western science (Austin et al., 2019). This fractured relationship is exacerbated by the reciprocated scepticism that First Peoples feel towards non-Indigenous Australians who do take interest in their traditional ways of knowing. As Ens et al. (2012) affirm, “Indigenous histories of subjugation and coercion have resulted in a legacy of Indigenous marginalisation and in many cases a lack of confidence in engaging with mainstream Australia" (p. 102). The contribution of harmful Western research practice to these feelings of distrust will be discussed in more depth in Chapter 5.

Practical concerns surrounding Indigenous knowledge undoubtedly appear more burdensome when discussed within the hegemonic discourse of mainstream development. Using Western science as the benchmark in which to compare and critique Indigenous knowledge ignores the fact that these systems draw their power from realms outside of the usual comprehension of Western science (Briggs, 2005; Sillitoe & Marzano, 2009). The following section explores the

possibility of a meaningful future for Indigenous knowledge in the development space, which recognises and respects the aspirations of Indigenous peoples.

2.6 A Potential Future for Indigenous Knowledge in the Development Landscape

Questions remain regarding how best to draw upon Indigenous knowledge as part of development efforts in a way that is respectful to the cultures, concerns and aspirations of Indigenous peoples, and which can move through the hoops of bureaucracy (Briggs & Moyo, 2012). Whilst there is no one definitive answer, Dentzau (2019) and Parsons et al. (2017) suggest that it is time to acknowledge that Western science and Indigenous knowledge, although different, are equally valuable. Rather than attempt to integrate or hybridise these two knowledge systems, Sillitoe and Marzano (2009) assert that "a two-way flow of information, drawing on the combined strengths of different scientific and non-scientific cultural traditions" (p. 17) is the best step forward. This interdisciplinary approach is reliant on meaningful and balanced conversation between development professionals and Indigenous peoples, which allows both parties to comprehend and ascertain the advantages of alternatives in order to reach consensus (Sillitoe, 2006; Sillitoe & Marzano, 2009).

An interdisciplinary and balanced approach, which respects both Indigenous and non-Indigenous knowledge and worldviews is mirrored by the concept of *ganma,* belonging to the Yolngu peoples of East Arnhem Land. *Ganma* represents the mixing of saltwater and freshwater, which whilst different, are no more significant nor powerful than the other (Ens et al., 2012). Ens et al. (2012) affirm that fundamental to creating an equitable future where Indigenous knowledge can thrive as part of development interventions, is ensuring that Aboriginal and Torres Strait Islander participants are meaningfully engaged "in all stages of the project including conceptualisation, design, implementation, monitoring, evaluation and dissemination stages" (p. 103). In their discussion of knowledge partnerships within the Kimberley region, Austin et al. (2019) conclude that in order to counter mutual scepticism and ensure effective collaboration, both First Peoples and non-Indigenous parties must "employ 'good faith' in recognising different theoretical,

methodological and practical approaches" (p. 584). Austin et al. underline the necessity of a post-colonial shift as part of this process, whereby Indigenous knowledge is validated based on results, rather than dismissed because of its status as a traditional knowledge system. Sillitoe and Marzano (2009) neatly summarise:

> There is, in short, no single indigenous knowledge 'theory' analogous with scientific theory but there is an urgent need to engage with the complexities of relations that characterise all knowledge traditions, to break with fruitless definitional debates and false dichotomies and to devise methodologies that allow us effectively to work between these traditions (p. 17).

This poignant declaration holds utmost relevance to this thesis, which seeks to distinguish the Indigenous knowledge of Australia's First Peoples as unquestionably unique, yet of equal value to Western science. However, this research does not propose that the traditional food-related knowledge and practices of Aboriginal and Torres Strait Islander consitute a comprehensive cure for food and nutrition insecurity within remote Indigenous communities. Instead, it stresses the pressing need to form a united front, which acknowledges and draws upon the inherent strengths of Indigenous and Western knowledge systems in forging effective and culturally meaningful outcomes for Australia's First Peoples.

2.7 Conclusion

Hopeful post-development and post-colonial thought have provided a scholarly space within development, fostering a growing recognition of the inherent power of Indigenous knowledge systems. Similarly, as participatory, empowering and sustainable interventions have been increasingly sought out within the contemporary development space, Indigenous knowledge has received a greater share of the spotlight. However, Indigenous knowledge systems are yet to escape the enduring gaze of scepticism and criticism. The meaningful application of Indigenous knowledge as part of development interventions remains hampered by the binary divide, in which Western scientific knowledge retains its hegemonic position. Thus, there remains the overwhelming tendency to cherry-pick fragments of Indigenous knowledge that advance the

technocratic agendas of mainstream development efforts, rather than applying these knowledge systems in advancing Indigenous aspirations of self-governance and culturally relevant development outcomes. In-turn, the gaze of scepticism is reciprocated by Indigenous peoples, solidifying this fractured relationship. Despite these multifaceted challenges, literature from within global and Australian contexts supports a window of hope moving forward. This hope rests on an interdisciplinary approach that ignores the presiding preoccupation with difference, and instead fosters good faith, equitable two-way communication, negotiation and mutual learning in recognising and harnessing the strengths of the disparate, yet equally valuable, Indigenous and Western scientific knowledge systems.

Chapter Three: Conceptualising Food and Nutrition Security and its Relationship to Traditional Foods and Indigenous Knowledge

3.1 Introduction

The Food and Agricultural Organisation (FAO) (2019) estimates that hunger currently impacts more than 820 million people across the globe (p. 3). Despite time-honoured understandings of hunger equating to chronic food shortages ravaging the developing world, in reality, a further two billion people experience food insecurity, many of whom live in the middle- and high-income countries that have traditionally been omitted from the conversation (FAO, 2019). Australia is not free of this burden, and much like other so-called 'developed' countries home to Indigenous peoples, the state of food and nutrition security amongst Aboriginal and Torres Strait Islander peoples is inadmissible. This chapter begins by defining the evolving concept of food security, outlining the four pillars of the conventional food security framework before exploring the shift towards an integrated understanding of food and nutrition security, in response to *Objective 1.1.* This chapter then provides an overview of the state of food security and nutritional well-being that currently pervades remote Indigenous communities, fulfilling *Objective 1.2.* The relationship between Indigenous knowledge and traditional foods, with food and nutrition security literature is then explored in response to *Objective 3.2* and draws on examples from across disparate global contexts. The chapter then shifts its attention towards exploring the enduring function of bush tucker and Indigenous knowledge as part of Aboriginal and Torres Strait Islander peoples' efforts to achieve food and nutrition security within remote contexts, in line with *Objective 2.2*. Finally, the chapter will introduce the concept of food sovereignty, and highlights its important relationship to this research.

3.2 Conceptualising Food and Nutrition Security

In gaining an understanding of food and nutrition security it is firstly important to differentiate between food and nutrition. Whilst 'food' consists of the actual substances humans consume, nutrition is "a process that can be understood at the organism level" (Perez-Escamilla & Segall-Correa, 2008, p. 16), in which the body receives sustenance from the nutrients found within food. These nutrients are essential in ensuring human life, health, repair and growth (Australian Government Department of Health, 2013). However, the contemporary and integrated understanding of food *and* nutrition security that guides this research is a far cry from early conceptualisations of food security that emerged in the 1970s. The following sections intend to outline the shifting parameters of food security, ultimately introducing an integrated concept that is germane to understanding the alarming situation facing remote Indigenous communities throughout Australia.

3.2.1 The Evolving Concept of Food Security

The term 'food security' originated at the 1974 World Food Conference in Rome, where it was defined with regard to food supply, ensuring essential foodstuffs were consistently available at a stable price at both the national and international levels (FAO, 2006). However, food security was reconceptualised by the FAO in 1984 in the wake of the green revolution, which saw international food production skyrocket. This shift was owed to the realisation that food availability did not account for the vulnerabilities of impoverished communities and social groups who lacked purchasing power (Gross et al., 2000; Shetty, 2015). The concept of food security thus expanded to include "both physical *and* economic access to food" (Shetty, 2015, p. 457). The 1990s saw food security rise to the forefront of the development agenda as it became recognised as pivotal in reducing poverty and achieving global progress, an overarching quest of the impending Millennium Development Goals (Shetty, 2015). Emerging from the 1996 World Food Summit was a multidimensional reconceptualisation of food security, which judged food security to exist when "all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (as cited in FAO, 2006, p. 1). This working definition has since been amended by

the FAO to include ‘social’ alongside ‘physical and economic access’ (Shetty, 2015), and continues to preside as the primary definition used within most academic and professional circles. Conversely, the FAO defines food insecurity as existing when “people do not have adequate physical, social or economic access to food as defined above” (FAO, 2003, p. 29).

A conventional understanding of food security rests on four pillars - availability, access, utilisation and stability that unite to form an interactive framework (see Figure 3.1), whereby food security cannot be achieved until all four pillars are accomplished simultaneously (Hwalla et al., 2016). The *availability* pillar corresponds with the sufficient supply of foods of acceptable nutritional quality via domestic production, imports and food aid. A range of food supplies that constitute a nutritious diet must also be physically and economically *accessible*. Accessibility to food supplies is determined by factors including income, livelihood and other resources or entitlements of an individual or household (Barrett, 2010; Hwalla et al., 2016; FAO, 2006). As Barrett (2010) highlights, the accessibility lens is essential in illuminating “food security’s close relationship to poverty and to social, economic and political disenfranchisement” (p. 825). The *utilisation* pillar relates to the ability of individuals and households to exploit the nutrients provided by accessible food supplies. This process requires dietary diversity and nutritional knowledge, adequate sanitation, proper hygiene and safe food preparation practices. The utilisation pillar underlines the importance of non-food inputs in achieving food security. Finally, achieving food security depends on the *stability* of these three pillars (Barrett, 2010; Hwalla et al., 2016; FAO, 2006).

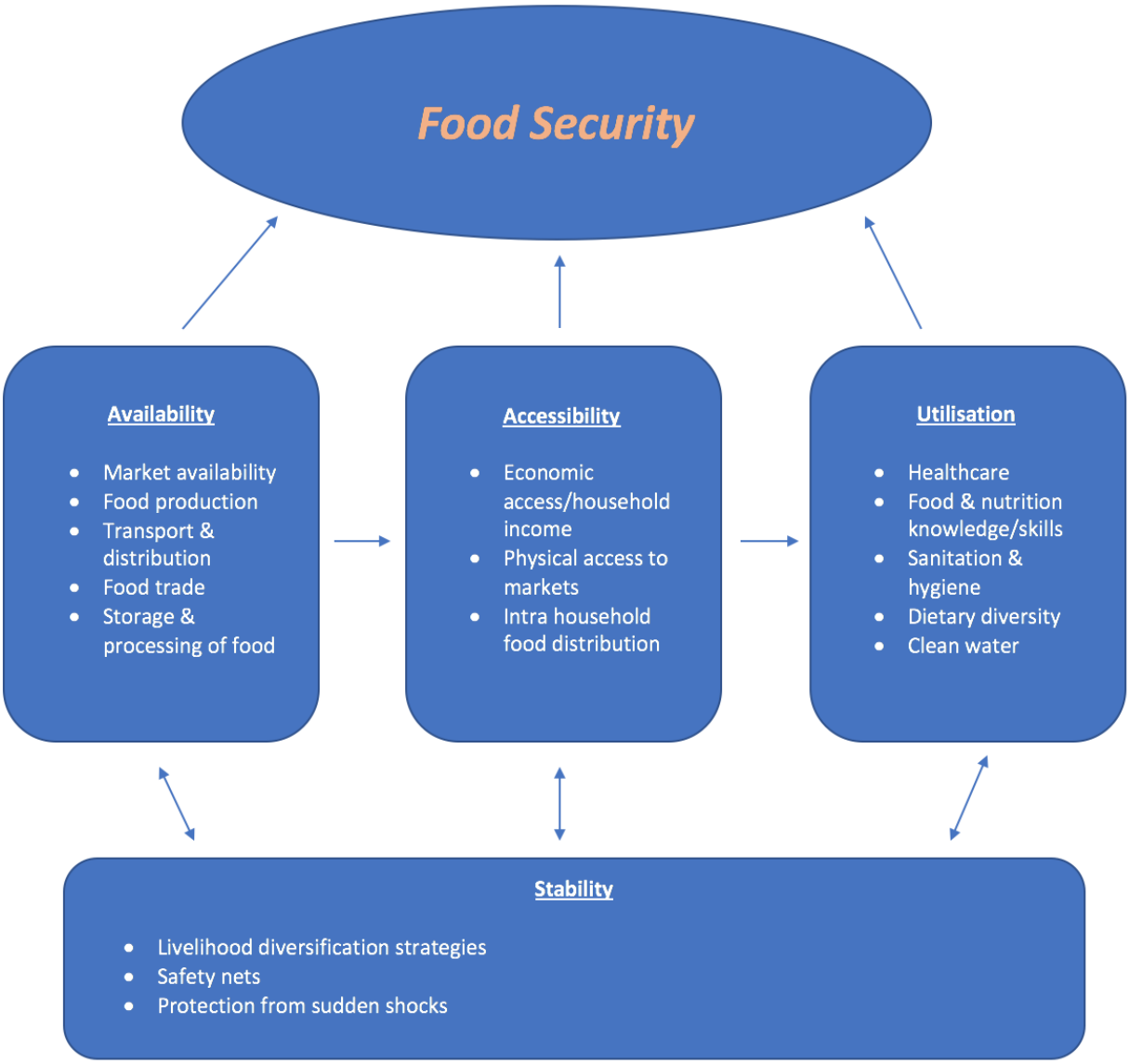

Figure 3.1: Four pillars of food security (Source: Author).

Whilst the pillars of the conventional food security framework draw some attention to dietary quality and nutrition (Barrett, 2010), the recent works of food security experts, nutritionists and international organisations have advanced the innate relationship between food security and nutrition (FAO, 2009; Perez-Escamilla, 2017). This has seen a shift in focus within some circles towards an integrated concept of food and nutrition security, which is explored in the following section.

3.2.2 Food and Nutrition Security: An Integrated Concept

As the 2019 FAO report, titled *The State of Food Security and Nutrition in the World* affirms, the unprecedented rise of malnutrition and the proliferation of non-communicable diseases associated with poor nutrition has necessitated a reshuffled view of food security (FAO, 2019). This fresh lens accepts that those who may not experience 'hunger' in that their diet consists of an adequate intake of energy, may still be food insecure due to their inadequate intake of essential micronutrients (Burchi et al., 2011; FAO, 2019; Sunderland et al., 2013). A total of 19 vitamins and minerals are required to support "physical and mental development, immune system functioning and various metabolic processes" (Kennedy et al., 2006, p. 9). These micronutrients are derived from diverse diets rich in fruits, vegetables, legumes and animal proteins (Sunderland et al., 2013). Burchi et al. (2011) affirm that micronutrient deficiencies stemming from poor dietary quality constitutes a phenomenon labelled *hidden hunger,* where the red flags traditionally associated with hunger and undernutrition often go unnoticed. However, the consequences of hidden hunger on an individual's health, wellbeing and development may be equally detrimental (Burchi et al., 2011; FAO, 2019).

This reshuffled understanding of food security has meant that for the first time, the FAO's 2019 report provides estimates of the incidence of both severe and moderate food insecurity (FAO, 2019). Whilst individuals and households experiencing severe food insecurity are classified as having run out of food supplies, moderate food insecurity describes individuals and households who "have been forced to reduce, at times during the year, the quality and/or quantity of food they consume due to lack of money or other resources" (FAO, 2019, p. 5). As Hwalla et al. (2016) explain, resource-depleted households will often prioritise the purchase of low-cost and calorie-dense foods to avoid facing outright hunger, rather than purchasing nutrient-rich foods that generally come at a higher financial cost. Similarly, those facing inconsistent food availability or access may gorge on food supplies when they are available and accessible as a coping mechanism for impending uncertainties, often leading to the proliferation of overweight and obesity. Moderate food insecurity is therefore synonymous with the incidence of hidden hunger, in that it is associated with reduced dietary quality, nutrition and health outcomes (FAO, 2019).

Increasingly, some experts have employed an integrated understanding, which combines the concept of food security with *nutrition security.* Nutrition security is achieved when individuals or households have secure access to an adequately nutritious diet, consisting of essential proteins, vitamins and minerals, as well as having sufficient access to health care and health-related services. Food security and nutrition security share a co-dependent relationship, where one cannot possibly be achieved without the other. Therefore, the term *food and nutrition security* has become favoured by those that wish to illustrate this interconnectedness and stress the poor health and nutritional outcomes of food insecure communities (Hwalla et al., 2016; Shetty, 2015).

The culmination of these principal shifts is a more holistic understanding of food security, which is equally relevant for high income countries, where segments of the population primarily face moderate food insecurity and hidden hunger. This dual conceptualisation of food and nutrition security, which looks "beyond hunger towards the goal of ensuring access to nutritious and sufficient food for all" (FAO, 2019, p. 3), becomes pertinent to gaining an understanding of the multifaceted and complex situation currently facing Aboriginal and Torres Strait Islander peoples living in remote communities, which will be explored in the following section. Whilst the term food and nutrition security will be predominantly employed, the four pillars of the conventional food security framework will also be referred to throughout this thesis.

3.3 Food and Nutrition Security in Remote Aboriginal and Torres Strait Islander Communities: An Overview

Since its initial inclusion in the 1995 *National Health Survey,* Australia's national estimates of food security hinge on a singular question: "in the last 12 months, were there any times you ran out of food and couldn't afford to buy more?" (as cited in Marwick et al., 2014, p. 1). According to the most recent *Australian Aboriginal and Torres Strait Islander Health Survey* (AATSIHS), 22% of Indigenous households reported to be food insecure, compared to just 3.7% of non-Indigenous households. Estimates of food insecurity increased to 31% amongst First Peoples living in remote communities (Australian Bureau of Statistics [ABS], 2015, para. 2). However, a

study conducted by Brimblecombe et al. (2018), which employed the same measure as ABS, signals that national surveys have drastically underreported food insecurity within remote Indigenous communities. After conducting surveys in remote communities across the Northern Territory, Brimblecombe et al. (2018) uncovered that 62% of Aboriginal and Torres Strait Islander peoples in these communities experience food insecurity (p. 1430). As Lee and Lewis (2018) assert, this figure may be even higher, as the singular question fails to encapsulate the multifaceted nature of food insecurity.

As first alluded to in Chapter 1, food and nutrition insecurity within remote Indigenous communities shares a close relationship with the overall poor health experienced within these communities. Studies have shown that the chronic diseases deemed responsible for an estimated 80% of the health gap (Browne et al., 2018, p. 690) are underpinned by a serious lack of dietary quality, diversity and nutrition (Brimblecombe et al., 2013; Ferguson et al., 2016). In fact, some studies attribute obesity as being responsible for 16% of this health gap (Lee et al., 2009, p. 547), whilst another 5% can be attributed directly to low fruit and vegetable intake (Browne et al., 2014, p. 368). First Peoples are significantly more vulnerable to morbidity and mortality as a result of being overweight or obese. These forms of malnutrition stem from the overconsumption of nutritionally devoid, energy-dense foods, and the inadequate intake of foods containing essential micronutrients (Lee & Lewis, 2018). The 2018-2019 NATSIHS reports that 71% of Aboriginal and Torres Strait Islander peoples over the age of 15 (ABS, 2019b, para. 14), and 37% of children aged between two and fourteen were considered overweight or obese (ABS, 2019c, para. 8). These statistics represent a worsening situation when compared to estimates produced in the 2012-2013 survey (see Figure 3.1 below) (ABS, 2019a).

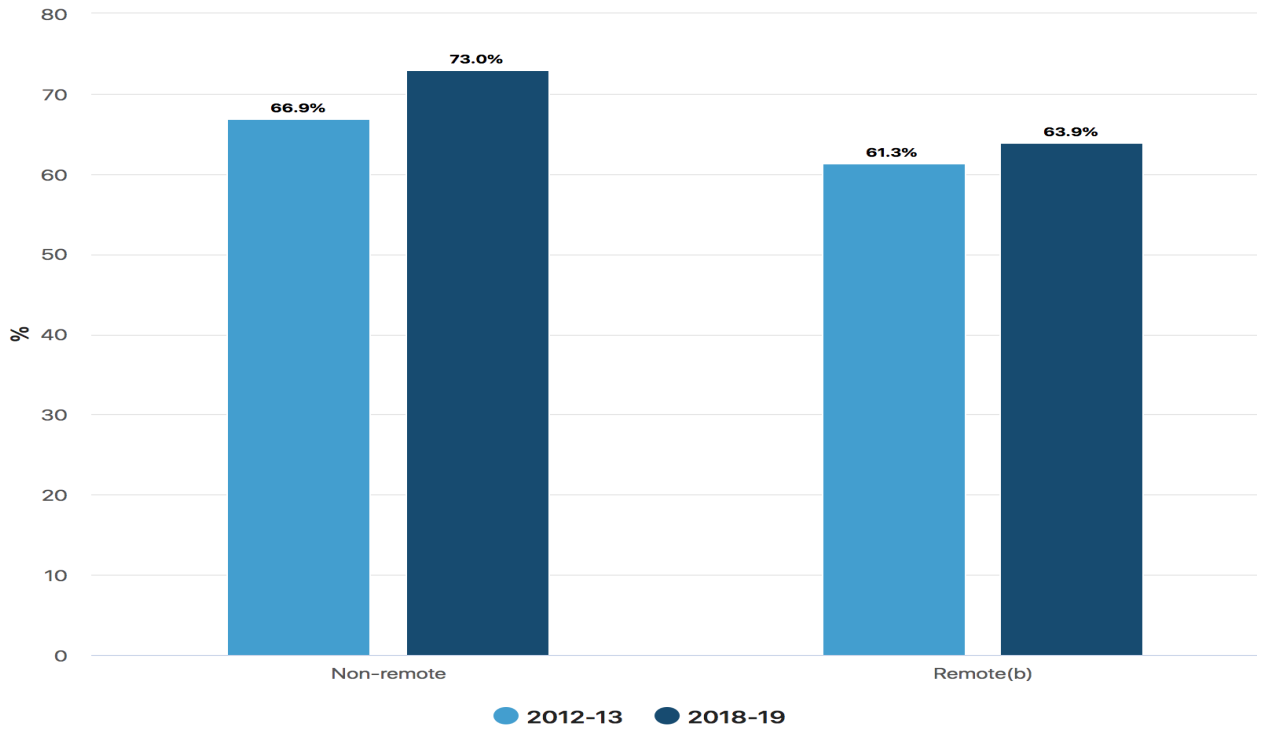

Figure 3.2: Aboriginal and Torres Strait Islander peoples aged over 15 overweight and obesity by remoteness - 2012-13 and 2018-19 (Source: ABS, 2019).

Various studies describing the dietary trends of First Peoples across Australia substantiate why distressing trends in food and nutrition security persist within these communities. The 2012-2013 AATSIHS found that 'discretionary foods', or foods deemed non-essential in providing essential nutrients to the body such as chips or sugary beverages, account for 41% of total daily energy consumed in the average diet of First Peoples (ABS, 2015, p. 44). These findings were mirrored in Lee and Lewis' (2018) study of food pricing across five remote communities, where 62% of the average food budget was spent on discretionary food items (p. 12). Brimblecombe et al. (2013) uncovered that alongside a "high intake of refined cereals and added sugars, low levels of fruit, vegetables and protein, limiting key micronutrients, and excessive sodium intake" (p. 383), white bread provided a significant quantity of the key nutrients, fibre and energy in the diets of First Peoples across the Northern Territory. These findings mirror Brimblecombe and O'Dea's (2009) earlier study on the role of energy cost in food choices within a remote Indigenous community in the Northern Territory, which discovered that "table sugar (16%), flour (13%), bread (11%) and milk powder (8%) - provided about half the energy available through the

community food supply" (p. 550). Brimblecombe et al. (2013) were also particularly alarmed by low expenditure on fruit and vegetables. These communities averaged 0.3-0.7 daily serves of fruit, and 1.1-2.1 daily serves of vegetables (p. 383), trends mirrored in the 2018-19 NATSIHS, which reports that only 39% of participants aged 15 years and over consume the recommended amount of fruit per day (ABS, 2019b, para. 3), whilst a stark 4% meet these same guidelines concerning vegetables (para. 7). Such statistics are strikingly similar amongst adolescents (ABS, 2019c), proving that dietary trends often persist across the life span.

An overview of the enduring dietary patterns within remote Indigenous communities seamlessly aligns with a contemporary understanding of food and nutrition insecurity and the global influx of moderate food insecurity or hidden hunger. These statistical trends illuminate that whilst the average diet of Australia's First Peoples is sufficiently rich in calories, these calories are often derived from foods lacking in the micronutrients that are required to achieve food and nutrition security. Instead, 'discretionary' foods permeate the diets of Aboriginal and Torres Strait Islander peoples, overshadowing the consumption of nutrient-rich foods such as vegetables, fruits, fish, seafood and meats. What becomes clear in examining these trends, is the contribution of foods that have been introduced as part of the conventional food system. This system, once completely alien to Australia's First Peoples, has gradually asserted itself as the driving force behind the dire state of food and nutrition security currently pervading these communities. This transition and its noxious impacts will become clearer in Chapter 4. The following section explores the relationship between food-specific Indigenous knowledge and traditional foods with food and nutrition security literature from across global and Australian contexts.

3.4 The Relationship Between Food and Nutrition Security, Indigenous Knowledge and Traditional Foods

Indigenous scholar Coté (2016) highlights the pernicious impacts of the increasingly globalised and over-commodified conventional food system. These proclamations are mirrored by Indigenous academic Huambachano (2018), who describes this neo-liberal food system as an "industrial, agricultural model characterised by high-technology approaches with the objective of

increasing productivity and efficiency" (p. 1005). Coté (2016) and Huambachano (2018) focalise the inherent failure of the conventional food system to support food security and nutritional well-being amongst Indigenous peoples, who continue to experience a number of structural barriers that inhibit them from thriving within the store-bought regime. From a post-development perspective (see Chapter 2), such an approach highlights the failures ingrained within a development blueprint that views progress in the form of industrialisation, mass-production and capitalist logic, which subsequently pushes alternative models to the wayside (McGregor, 2009). From a post-colonial perspective (see Chapter 2), this hyper-industrialised and market-driven food system illuminates the noxious force of 'expert' knowledge and the privileged position of the Western worldviews, which work to demote Indigenous ways of knowing and being (Battiste, 2004).

The shortcomings of the conventional food system have all but necessitated the acknowledgement of the potential of traditional food systems to support improved food security and nutritional well-being, both within theory and practice. The following sections explore an array of evidence to support these claims from global and Australian contexts alike.

3.4.1 An Exploration of Global Contexts

A report issued by the FAO (2009) highlights the value of Indigenous knowledge as mainstream food systems face unprecedented reductions in diversity and remain under constant threat from the spread of pests, disease and extreme shifts in climatic patterns. Twelve plant and five animal species are currently responsible for 70% of the global human diet. Twenty uncultivated plants provide 90% of the world's plant foods, whilst fourteen mammals and birds provide 90% of all animal foods consumed globally (p. 4). However, the FAO assert that the diverse range of plant varieties and animal breeds developed and utilised by Indigenous groups, which have adapted to these threats over thousands of years, present robust possibilities for integration into the mainstream global food system. The report similarly expresses concern towards the impact of extreme weather events such as droughts and floods on global food security, which continue to increase in frequency and ferocity. As the report posits, the complex understanding of climate and weather developed by Indigenous groups has allowed these peoples to develop monitoring

and early warning systems for extreme weather events, as well as mitigation and adaptation strategies in order to maintain a secure food supply during these times. The FAO therefore asserts that Indigenous knowledge can enhance Western science and technology in safeguarding the food and agricultural sector from climate-related risks. This overarching stance of the FAO, however, draws clear and equally problematic parallels discussed in Chapter 2. Rather than highlighting Indigenous knowledge as of equal value, the FAO constructs Indigenous knowledge as an 'enhancing addition' to Western technocratic reasoning, and thus arguably reiterates the hegemonic claims of Western science, technology and the conventional food system.

Outside of an institutional context, a wealth of studies underlines the power of Indigenous knowledge to bolster food and nutrition security across global contexts. Oniang'o et al. (2004) note that traditional staple foods are more resilient to climate shocks in many African countries, with roots and tubers acting as safety nets when cereal crops fail due to widespread drought. Similarly, Songok et al. (2011) describe households in the Nandi and Keiyo districts of Kenya, who have adapted to increasingly variable climatic patterns and weather events by intercropping drought-resistant Indigenous cereal and vegetable varieties such as finger millet amongst modern crop varieties. Like other Indigenous groups, Indigenous households in Nandi and Keiyo also use their phenological knowledge as key climatic indicators to determine when crops are planted, what seed varieties to use, harvest times and consumption patterns (Songok et al., 2011).

In addition, Kuyu and Bereka (2020) assert the value of Indigenous food processing and preservation techniques for attaining food security in Ethiopia. The authors note that food insecurity in Ethiopia is largely owing to postharvest loss rather than a lack of food production, with an estimated 15% of cereal crops and 30-80% of fruits and vegetables lost due to inefficient preservation and processing methods (p. 4). The use of traditional processing and preservation methods such as the inclusion of botanical plants in postharvest pest control are contended as potential amendments to Ethiopia's postharvest loss (Kuyu & Bereka, 2020). Kuyu and Bereka (2020) also highlight that the increased consumption of Indigenous wild edible plants constitutes an adaptation strategy to food insecurity within Ethiopia, particularly when conventional staple crops fail due to severe seasonal weather variability. This strategy is mirrored by the Negrito

people of the Philippines, who rely on wild foods alongside traditional hunting practices during prolonged wet and dry seasons, which often lead to food insecurity (Ong & Kim, 2017).

Finally, various studies cite the contribution of traditional foods to nutritional wellbeing. Kuyu and Bereka (2020) state that the regular consumption of injera, a form of flatbread containing the endemic Ethiopian super grain teff flour, supports the prevention of noncommunicable diseases including type two diabetes and obesity. Teff flour is abundant with iron, calcium and protein, and is low in sodium, saturated fat and cholesterol compared to other cereals (Kuyu & Bereka, 2020). Similarly, dietary analyses conducted amongst First Nations peoples in Manitoba and British Columbia concluded that the dietary quality of participants was enhanced on days when they consumed traditional foods such as moose, elk and wild berries (Elliot et al., 2012; Fieldhouse & Thompson, 2012). Elliot et al. (2012) discovered that the traditional diet of Canada's First Nations peoples was higher in essential nutrients, and lower in fat, sodium and carbohydrates when compared to a market-based diet. Traditional foods and food-specific Indigenous knowledge has similarly received attention, albeit limited, as a powerful means of increasing food security and nutritional well-being within Indigenous communities in Australia, which will be explored in the following section.

3.4.2 An Exploration of Aboriginal and Torres Strait Islander Communities

Studies linking traditional foods and food-specific knowledge with food and nutrition security are somewhat limited compared to other global settings (Bussey, 2013; Ferguson et al., 2017; Scleza, 2014). Despite the barriers inhibiting First Peoples from regularly engaging with their traditional food system, a topic explored in Chapter 4, the hunting, gathering and harvesting of bush foods remains relatively commonplace within remote communities (Ferguson et al., 2017; Merne Altyerre-ipenhe reference group et al., 2011; Scelza et al., 2014). The 2008 *National Aboriginal and Torres Strait Islander Social Survey* (NATSISS) reveals that approximately 60% of the Aboriginal and Torres Strait Islander peoples aged 15 years and older had participated in the hunting or harvesting of bush tucker in the past twelve months. This figure rose to 72% within remote areas of Australia (ABS, 2009). The results of this national survey are mirrored by

a study conducted by Ferguson et al. (2017), which discovered that bush foods were available year-round to all 20 participating remote Indigenous communities across the Northern Territory. 71% of participants reporting to have consumed bush tucker weekly, whilst 89% consumed traditional foods on a fortnightly basis.

Many early studies focus on the nutritional value of traditional foods. Studies conducted by O'Dea (1983, 1984), discovered that when First Peoples suffering from type two diabetes and obesity reverted to a traditional diet for a period of seven weeks, they saw significant weight loss, marked improvements in diabetes-related abnormalities and the reduction of risk factors associated with coronary heart disease. Similarly, O'Dea and Spargo (1982) discovered that a two-week long reversion to a traditional diet enhanced glucose tolerance within an Indigenous community in the Kimberley. An additional study designed by Smith and Smith (2003) compared the nutritional quality of the traditional diet of the Ngaanyatjarra people of the Western Desert, with a modern diet devised to combat chronic disease. The authors found close similarities between the two diets, particularly the "absence of recognised risk factors for the chronic diseases found in the present Aboriginal population of northwestern Australia" (p. 39).

More recently, scholars assert that a full-fledged reliance on a traditional diet is no longer practical as hunting and foraging for foods juxtaposes the globalising market economy and proves especially difficult for First Peoples living in urban settings (Bussey, 2013; Lee, 1996; Scelza et al., 2014). Subsequently, recent studies have focused on mixed modes of subsistence (Scelza, 2014), as academics have explored how the traditional food system acts as a safety net to provide *stability* (see Figure 3.1) when Aboriginal and Torres Strait Islander peoples experience food and nutrition insecurity within the conventional food system. For example, Ferguson et al. (2017) discovered that bush tucker was utilised as a primary means of alleviating food insecurity by 40% of First Peoples who reported experiencing food insecurity within 20 remote communities across the Northern Territory (p. 294). Similarly, a study of aquatic resource use by Indigenous communities living near the Daly River and Fitzroy River catchments, revealed that the hunting, fishing and harvesting of bush foods increases in times of financial hardship (Jackson et al., 2012). These findings are mirrored by Russell et al. (2015) who discovered that 40% of the Gumbaynggirr participants utilise bush foods from the Nambucca

River estuary in New South Wales during periods of economic adversity (p. 6). Additionally, Scelza et al. (2014) uncovered that the Martu people of the Western Desert rely on sandplain hunting in times of economic scarcity, procuring small animals such as goannas when they could not access market-derived staple foods. As the following chapter will illuminate further, the challenge of achieving food and nutrition security via the capital-driven conventional food system is especially difficult for remote Indigenous communities, which are proliferated by low-income, widespread unemployment, and high-food costs (Bussey, 2013).

A review of the literature from global and Australian contexts alike, reveals that traditional foods, food-related practices and food-related knowledge remains important in supporting the ability of First Peoples to achieve food and nutrition security. This approach is indicative of the growing realisation that the neo-liberal global food model cannot ensure food and nutrition insecurity within these disadvantaged communities alone. Any attempt to explore the possibility of decreasing First Peoples' reliance on the conventional food system and re-invigorating the everyday role of traditional knowledge and food within these communities must acknowledge a congruence with the food sovereignty discourse. The idea of food sovereignty, and its relationship to this study will be briefly outlined in the following section.

3.5 Food Sovereignty

The idea of food sovereignty emerged in 1993 as a global agrarian movement, with small-scale farmers forming the organisation La Via Campesina in counter-hegemonic opposition to the globalised food model, discussed in Section 3.4. The definition of food sovereignty is somewhat contested, however, The Nyéléni Declaration emerging from the Nyéléni International Forum for Food Sovereignty in 2007, perhaps contains the most widely recognised definition:

> Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agricultural systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations (as cited in Cote, 2016, p. 8).

Much of the orthodox food sovereignty literature vows for a utopian reality, where community-based food systems are defined by complete self-sufficiency and outright autonomy from the conventional food system (Markham & Kerins, 2020). Whilst this reality cannot be discounted, for Indigenous groups, food sovereignty is often more so about driving policies and programmes, developing food systems and utilising food-related practices that reflect "their own cultural values around producing, consuming and distributing food" (Coté, 2016, p. 8). Furthermore, for Indigenous peoples, food sovereignty is a decolonising process, as communities decrease their dependency on an introduced food system and shift towards preserving, restoring and reinvigorating their traditional food systems, food-specific Indigenous knowledge and relationship with their environments (Cote, 2016; Grey & Patel, 2016). Thus, as Cote (2016) asserts, food sovereignty is an important stepping-stone in the overarching sociopolitical quest of Indigenous peoples towards self-determination.

Whilst this study will remain primarily focused on exploring how the traditional foods and food-specific knowledge of Australia's First Peoples can support food and nutrition security in remote communities, the core principles of food sovereignty will prove important in later chapters. As these chapters will illuminate in more depth, the true potential, power and benefit stemming from the reinvigorated role of bush tucker and Indigenous knowledge in the lives of these communities cannot and should not be limited to supporting improved outcomes related to food security and nutritional well-being.

3.6 Conclusion

A contemporary understanding of food and nutrition security is barely recognisable when compared to the first definition of food security, conceived in 1974. However, the shift to an integrated framework is essential in understanding and ultimately combating the unprecedented global rise in moderate food insecurity, hidden hunger and malnutrition. Nowhere does this hold truer than within Australia's remote Indigenous communities, which are faced by worrying trends in food insecurity, malnutrition and chronic disease. These trends are undoubtedly underpinned by the contemporary diets of First Peoples, which are often devoid of the required

nutritional quality and diversity required to achieve food and nutrition security. Increasingly however, proponents of Indigenous ways of knowing and being have turned their attention to the potentials of traditional foods and food-specific Indigenous knowledge in efforts to support improved food and nutrition security. Evidence from disparate global contexts demonstrates how Indigenous knowledge and traditional foods have supported food and nutrition security amidst threats of climatic shifts, extreme weather events, pests and post-harvest loss. Within Australia's remote Indigenous communities, studies show that First Peoples draw upon their traditional food system in times of economic and market scarcity, integrating traditional hunting and gathering practices into their market-based modes of subsistence and increasing their consumption of bush foods. Finally, within both Australian and global contexts, the integration of traditional foods into the contemporary diet of First Peoples has proven to increase dietary quality and ward against diet-related disease. The utilisation of traditional foods and food-specific Indigenous knowledge, therefore, not only represent reactive and adaptive strategies in periods of food and nutrition insecurity. If taken seriously, these resources hold great potential as a proactive avenue for supporting long-term food and nutrition security within remote Indigenous communities. Yet, as an 'Indigenised' conceptualisation of food sovereignty signals, reinvigorating the function of these traditional resources in the lives of First Peoples can have far-reaching impacts on the wider social, political and cultural aspirations of Indigenous communities. These broader outcomes and their true significance will become clearer as this research unfolds.

Chapter Four: The Food and Nutrition Transition: The Decline of Prosperity and Plenty

4.1 Introduction

Experts maintain that the somber state of food and nutrition insecurity currently experienced by Aboriginal and Torres Strait Islander peoples serves in contrast to the prosperity enjoyed by these nations prior to European invasion. As such, the present-day situation must be contextualised within centuries of colonial oppression, racialised views, and structural disadvantage, which have combined to obliterate the traditional food-related culture, practices and knowledge of First Peoples (Adams et al., 2012; Sherwood, 2013). This chapter begins by describing the traditional food system of Aboriginal and Torres Strait Islander peoples, addressing *Objective 2.1.* The enduring impact of colonialism on the ability of First Peoples to draw upon Indigenous knowledge and bush foods in their current efforts to support their food and nutrition security will then be explored, in response to *Objective 2.3*. Similarly, this chapter will explain how the colonial tirade has left First Peoples at a disadvantage in their efforts to attain food and nutrition security via the conventional food system. As will be explained, this contemporary system is characterised by the persistence of colonial staple derivatives, the centrality of remote community stores, and the exacerbating factors of socio-economic disadvantage, remoteness and the general dearth of nutrition literacy amongst First Peoples concerning introduced foods. In exploring this system, this chapter also responds to *Objective 1.3,* which seeks to understand some of the key determinants of food and nutrition insecurity within remote Indigenous communities.

4.2 The Traditional Food System of Australia's First People

It is difficult to provide an exhaustive account of the pre-contact food system of Australia's First Peoples. To date, the majority of available literature, much of which is based on the journals and diary entries of early European invaders (Pascoe, 2017), has depicted these nations as having

lived a nomadic hunter-gatherer existence (Davy, 2016; O'Dea et al., 1991). More recently however, Indigenous academics such as Pascoe (2017) have fervently contested these claims, stating that early colonial accounts were hardly "bothered with the evidence of the existing economy because they knew it was about to be subsumed" (p. 13). As such, Pascoe argues that these accounts reduced the progressive agricultural and partly sedentary society of First Peoples to a primitive and hapless wandering of the land.

Although Australia's First Peoples did hunt, gather and harvest food, rather than an opportunistic search of sustenance, Gammage (2011) describes pre-contact Australia as a "farm without fences" (p. 281). Utilising diverse forms of agriculture and aquaculture, these nations carefully managed their Country to ensure the consistent supply of food (Ferguson et al., 2017; Pascoe, 2017). The traditional food system was therefore heavily reliant on a detailed knowledge of the environment, which was transmitted between generations and varied by region, depending on climate, terrain and the prominence of plant and animal species (Davy, 2016; Laundine, 2009; O'Dea et al., 1991; Rhea, 2017). First Peoples used this knowledge to move around their vast homelands cyclically and seasonally (University of New South Wales, 1996), evidenced by the remnants of permanent housing structures (Pascoe, 2017). As Lingard (2016) asserts, Indigenous knowledge underpinned all aspects of the pre-contact economy and food system of First Peoples, including natural resource management, food procurement, harvesting, storage and post-harvest practices, food preparation and cooking methods, varietal characteristics and differences, as well as seasonal cycles and availability.

Prior to European invasion First Peoples lived an omnivorous existence (O'Dea et al., 1991). In general, however, the average pre-contact diet is thought to have oriented around animal foods (Brand-Miller & Holt, 1998; O'Dea et al., 1991). Few animals were considered inedible: mammals, birds, reptiles, fish, shellfish and insects, as well as animal eggs are reported to have formed an integral part of the diet (O'Dea et al., 1991; Rhea, 2017). The year-round availability of a diverse range of uncultivated plant foods was vital in supplementing the meat-oriented diet. First Peoples are thought to have utilised "300 different fruit species and 150 varieties of roots and tubers" (Brand-Miller & Holt, 1998, p. 22), alongside various gums and nectars, fungi, a variety of vegetables, grasses, seeds and nuts (Gott, 2008; O'Dea et al., 1991; Rhea, 2017).

The procurement of food supplies was aided by instruments and techniques, including weirs and fish traps (Laundine, 2009; Rhea, 2017). A technique known as firestick farming, whereby controlled low-intensity grass fires were intentionally lit, constituted a primary agricultural practice utilised by First Peoples. These fires encouraged the regeneration of grasslands, ensuring animals were attracted back into the area, and germinated a variety of edible plant species (O'Dea et al., 1991; Lee, 1996; Rhea, 2017; Rose, 1996). Pascoe (2017) references other early accounts, which report a variety of agricultural practices used by First Peoples, including harvesting grain, trading and propagating seeds and building dams to aid in irrigation. Colonial accounts also note that First Peoples utilised natural resource management practices, further highlighting their efforts to ensure long-term food availability. For example, First Peoples were reported to leave the top of the tuber attached to the tendril of the vine to encourage the regeneration of yams (O'Dea et al., 1991). Game was often selected by size to allow smaller animals to grow, and strict cultural rules were upheld to ensure rare food sources or threatened species numbers were maintained in favour of consuming more abundant resources (Laundine, 2009; Rhea, 2017).

Food preparation and processing techniques were primarily used to increase the palatability and digestibility of some foods, although many plant foods were eaten raw as they were collected (O'Dea et al., 1991). Small animals and vegetables that could not be eaten raw were regularly baked whole directly on the fire, or on hot coals or stones. The preparation of larger animals was a more significant and intricate process, with a hunter often taking primary responsibility (Laundine, 2009; O'Dea et al., 1991; Rhea, 2017). The poisonous qualities of some plant foods such as cycad palm nuts were removed by pounding them into a pulp and leaving them to leach in running water for several days (Laundine, 2009; O'Dea et al., 1991). Although Aboriginal and Torres Strait Islander peoples primarily consumed foods soon after they were procured, early reports indicate that a number of storage techniques were utilised to ensure long-term food availability. Grains were stored in piles under bark covers, whilst some seeds and nuts were ground into pastes or pulps and stored in cake or ball forms. Both plant and animal foods were often wrapped in bark or leaves and buried in the earth or placed in hard-to-access places such as trees (Laundine, 2009; O'Dea et al., 1991).

All reports of Aboriginal and Torres Strait Islander peoples at first contact describe a lean and physically fit peoples, an appearance undoubtedly owing in part to the energy exerted procuring and preparing bush tucker (Brand-Miller & Holt, 1998; Ferguson et al., 2017; O'Dea et al., 1991). However, of equal value was the nutritional quality and diversity of pre-contact diets. The non-domesticated animals hunted by Aboriginal and Torres Strait Islander peoples contained large amounts of quality proteins, a low overall fat content and high quantities of polyunsaturated fatty acids (Naughton et al., 1986; O'Dea et al., 1991). The diverse range of plant foods consumed were dense with essential micronutrients including potassium, calcium and magnesium. Similarly, these plant foods were a rich source of dietary fibre and slowly digested carbohydrates (Brand-Miller & Holt, 1998; O'Dea et al., 1991). Furthermore, the average pre-contact diet of First Peoples was reportedly low in sugars, as yields of sugary foods such as nectars and native honey were small and shared amongst kin (Brand-Miller & Holt, 1998). The limited preparation and processing methods also worked to maximise nutritional retention.

This nutrient-dense diet is thought to have protected First Peoples from contemporary forms of malnutrition and preventable chronic disease (see Chapter 3) (Brimblecombe et al., 2014; Ferguson et al., 2017). The low-fat content of the traditional diet, combined with the high variety of long-chain polyunsaturated fatty acids is considered to have aided in guarding against obesity, cardiovascular disease, and type two diabetes (Ferguson et al., 2017). Similarly, the slowly digested carbohydrate profile of most traditional plant foods inhibited insulin resistance, further protecting First Peoples from developing type two diabetes (Brand-Miller & Holt, 1998; O'Dea et al., 1991). The health benefits associated with the traditional diet are further underlined by O'Dea et al. (1991), who cites various studies that report low body mass index and low resting blood pressure amongst nations that continued to exercise a traditional existence into the mid to late 20th century.

An exploration of the traditional food system of Australia's First Peoples and the state of health and well-being emanating from this system provides a stark contrast to the current experience of Aboriginal and Torres Strait Islander peoples living in remote communities. At the same time, this disparity adds further substance to the idea that the traditional knowledge and foods of

Aboriginal and Torres Strait Islander peoples can continue to underpin effective and culturally significant progress in the realm of food and nutrition security. In exploring Australia's colonial history, the following sections aim to provide some explanation as to how Australia's First Peoples transitioned from prosperity and plenty, to a state of food and nutrition insecurity reminiscent of the developing world.

4.3 The Colonial Barrage

The following sections explore three impacts of the colonial tirade, including land dispossession and degradation, rationing and the child removal regime, which have combined to decimate the traditional foods and food-related knowledge belonging to First Peoples.

4.3.1 Land Dispossession and Degradation

The decline of the traditional food system and the food-specific knowledge of First Peoples is largely owing to the colonial dispossession and degradation of land and sea Country. As Sherwood (2013) notes, the European doctrine *terra nullius* (land belonging to no one), was used by occupiers to eradicate the sovereignty of First Peoples over their Country. Under British law, colonists could dispossess the lands of First Peoples without offering compensation (Sherwood, 2013), soon rendering Australia's First People as "landless people trespassing on country once their own" (Nettlebeck & Foster, 2012, p. 22).

The dispossession and degradation of Country was undoubtedly fast-tracked as burgeoning numbers of British sought to establish their own food security and nutritional wellbeing (Rhea, 2017). Severe food shortages combined with an absence of knowledge about native flora and fauna, encouraged the rapid establishment of Eurocentric forms of pastoralism and agriculture using introduced plant and animal species (Rhea, 2017; Sebastian & Donnelly, 2013). Much to the peril of First Peoples, their most fertile lands and waterways, were also those deemed most productive for European agriculture (Boulton, 2016; Kouris-Blazos & Wahlqvist, 2000). As a result, First Peoples inhabiting Australia's fruitful regions were forcibly driven from their homelands, which were quickly replaced by farms and stations surrounded by fencing. Similarly,

those in arid regions were prevented from accessing the precious water sources that facilitated plant and animal life (Lee, 1996; Sebastian & Donnelly, 2013). Without access to the tracts of fertile Country that supported an abundance of bush foods, the food and nutrition security of Australia's First Peoples suffered greatly.

Pastoralism in particular annihilated the traditional estates of First Peoples, as European livestock polluted waterways, damaged soils, grazed on traditional food resources and destroyed the habitat of native animals. European pastoralism thus shifted the ecological harmony that had sustained First Peoples for millennia and proved detrimental for traditional staples foods, causing a widespread decline in game and creating unsuitable conditions for growing traditional root vegetables such as yams (Boulton, 2016; Davy, 2016; Kouris-Blazos & Wahlqvist, 2000; Rhea, 2017). Land dispossession and degradation therefore forcibly detached First Peoples from reliable sources of sustenance and depleted remaining stocks of bush tucker (Sebastian & Donnelly, 2013). As First Peoples became increasingly alienated from their traditional lands, waterways and foods, the retention and transmission of food-specific Indigenous knowledge was maimed as a result.

The haste and inadequacies of early colonists birthed the multi-generational demotion of the traditional food system and knowledge of First Peoples, in favour of Western food and knowledge systems deemed 'superior.' As Boulton (2016) notes, colonisers could neither understand nor appreciate the intricacies involved in the traditional economy that had provided a diverse, resilient and nutritionally rich diet for Aboriginal and Torres Strait Islander peoples prior to European contact. As the following section will highlight, the rapid establishment of a familiar Western food system by early colonists would soon extend itself into the lives of First Peoples in the form of rations.

4.3.2 Food as Colonial Control: Rationing

The introduction of rationing further decimated the food-specific Indigenous knowledge, as well as the food and nutrition security of Australia's First Peoples. As Nettleback and Foster (2012) contend, rations were initially used as a form of compensation for land dispossession, as well as a means of inducing peace between early colonists and First Peoples. However, with the onset of

protectionism policies across all states and territories between 1869-1910, rationing became a form of administration as the British government sought to mandate "total control over Aboriginal peoples" (Sherwood, 2013, p. 33). Rations were mostly distributed from remote outposts, or from the missions and reserves where Indigenous communities that had been forcibly removed from their homelands now congregated (Brock, 2008; Foster, 2000; Nettlebeck & Foster, 2012; Sebastian & Donnelly, 2013). Rations, predominantly consisting of white flour, sugar and tea, were originally conceived as a weekly supplement to the bush foods consumed by First Peoples as part of a two-way food system (Brock, 2008). However, as Brock (2008) affirms, the colonial idea of a two-way food system quickly proved unrealistic. The fixed location of ration distribution was incompatible with the mobility required by First Peoples to procure bush tucker, particularly as the land immediately surrounding missions and reserves soon became depleted of traditional resources. This fundamental incompatibility, coupled with the rapidly dwindling stocks of bush foods due to the spread of pastoralism, agriculture and land dispossession, saw the role of rations shift from supplementing a traditional diet, to constituting necessary staple foods in the face of widespread starvation amongst First Peoples (Brock, 2008; Nettlebeck & Foster, 2012; Sebastian & Donnelly, 2013). As First Peoples became increasingly dependent on rations, many nations centralised around missions and reserves, where rations that were once distributed weekly were soon distributed three times per day (Lee, 1996).

Attracted by the unrivalled convenience provided by rationing posts, First Peoples became alienated from the time-consuming task of procuring and preparing bush foods, and thus increasingly detached from the traditional knowledge required to perform these tasks (Boulton, 2016). As Smith & Smith (1999) highlight, colonial staple foods coincidentally mirrored the mainstays of the traditional diet, albeit in a significantly reduced nutritional form. For example, white flour produced a damper that could replace traditional dampers made from cycad nuts, without the additional procurement and preparation efforts (Brimblecombe et al., 2014; Lee, 1996). Lee (1996) refers to one ration-recipient, who bluntly stated "what for I want to walk about all day, ngulmandjmak (morning time) till gukak (dark time) when I got that kanditjawah (flour) right here in that drum" (p. 15). The food-specific Indigenous knowledge of First Peoples was similarly undercut by station and mission work, as men were taught Eurocentric farming techniques, whilst women were introduced to "Anglo-Irish colonial food, cooking and eating

practices" (Sebastian & Donnelly, 2013, p. 66). The expansion of rationing during the colonial era represents the beginning of the gradual transition of Australia's First Peoples into an unfamiliar food system dominated by foreign food resources. This transition and its impact on the traditional food system will be explored in more depth, and will thus become clearer, in the following sections.

4.3.3 The Child Removal Regime and the Deterioration of Food-Specific Indigenous Knowledge

The removal of Aboriginal and Torres Strait Islander children from their families worked aggressively to decimate the retention and intergenerational transmission of food-specific Indigenous knowledge amongst First Peoples. The forced separation of children was underpinned by the dominant colonial view of First Peoples as "primitive and barbaric and irrelevant to the modern settler nation" (Haebich, 2001, p. 75). Parents were seen as having little to offer their offspring, with this racialised view forming a cloak of 'good-intent' in which the true assimilatory interests of colonial powers could operate under. Providing care became synonymous with the widespread re-education and 'civilisation' of Aboriginal and Torres Strait Islander children in church-run missions, government institutions and Anglo-foster homes (Haebich, 2001).

Originally, children were forcibly abducted or coerced from their families with threats and promises (Haebich, 2001; Read, 2006). During the early decades of the 20th century however, governments enacted rigorous systems of removal underpinned by legal acts, which "erased the normally sacred rights of parents and children to remain together" (Haebich, 2001, p. 77). These concentrated efforts were particularly driven by fears regarding the growing number of 'half-caste' children, conceived via sexual liaisons between Aboriginal and Torres Strait Islander women and white occupiers. The child removal agenda thus shifted from a focus on the assimilation and 'civilisation' of children, to include a sinister eugenics policy which aimed to "breed the black out" of Aboriginality (Sherwood, 2013, p. 34). Estimates place the number of Indigenous children removed from their families between 1910-1970 between one in three, and one in ten. These children have become widely referred to as the Stolen Generations (Sherwood, 2013). Although policies were introduced towards the end of the 1950s re-focalising cultural

assimilation, this time through fostering and adoption, these children were met by the same pressures to conform to Eurocentric values, and thus the callous cycle of what can only be considered as cultural genocide has continued to this day (Haebich, 2001; Read, 2006; Robinson & Patten, 2008).

The child removal regime replaced traditional food-related knowledge, practices and culture with the knowledge and practices of the conventional food system. Aboriginal and Torres Strait Islander children were introduced to "institutional food farming and cooking practices" (Sebastian & Donnelly, 2013, p. 67) and were fed three meals per day derived from Western foods. Within these tightly controlled environments and separated from knowledgeable parents and Elders, the intergenerational transmission and development of food-specific knowledge, practices and skills was impeded significantly (Sebastian & Donnelly, 2013). As will become clearer in the following sections, the colonial regime of child removal has caused trans-generational injury to the retention and transmission of food-specific Indigenous knowledge, and thus presents an enduring barrier in the present-day efforts of First Peoples to support their food and nutrition security using traditional resources.

4.4 A Post-Colonial Food System

With the granting of full citizenship under the Commonwealth in the 1967 Referendum, many First Peoples were expelled from stations and missions, forming their own remote communities (Sherwood, 2013; Smith & Smith, 1999). Despite this significant historical shift, the following sections will illuminate that the remnants of the colonial barrage continue to hinder the ability of remote Indigenous communities to achieve food and nutrition security.

4.4.1 'Proper' Food: Dietary Patterns and Preferences from the Colonial Era

Current dietary trends and preferences in remote Indigenous communities retain clear parallels to the rations and diets which dominated the colonial era. As discussed in Chapter 3, modern-day derivatives of rations, including sugar-laden beverages, white bread and fatty tinned meats,

continue to proliferate the average diet of First Peoples. Kouris-Blazos and Wahlqvist (2000) assert that the enduring preference for these foods, which remains particularly strong amongst older generations, is linked to a sense of familiarity emanating from the colonial era. A study conducted by Saethre (2005) focusing on nutrition and food habits amongst the Warlpiri people of the Northern Territory, uncovered that foods stemming from the colonial era were still considered 'proper' foods by some. When Saethre (2005) queried one Warlpiri Elder about his preference for white bread rather than wholegrain, he answered "White bread is what we eat. All the way back to the rationing days, it was what we had. It is proper food" (p. 160). Saethre's study indicates that familiarity remains a factor in the food and nutrition security of First Peoples, as close acquaintances with foods from the past continue to guide present-day choices.

Familiarity and preference stemming from the colonial era has similarly warped perceptions of nutrition within many Indigenous communities. A study conducted by Brimblecombe et al. (2014) on food choice in one remote Northern Territory community found that colonial staples such as damper and white sugar were "not considered problem foods" (p. 394). Crucially, these misinformed attitudes form a dangerous precedent for younger generations, many of whom inherit the preferences and habits of their Elders. As Brock (2008) powerfully declares, the fear of poisoned rations felt amongst Aboriginal and Torres Strait Islander peoples at first contact with Europeans has been justified, albeit in a different form to that initially feared. As derivatives of colonial staples have trickled down through generations of Aboriginal and Torres Strait Islander peoples, the diets of these communities, and subsequently their ability to achieve food and nutrition security, has been left polluted by the proliferation of nutritionally devoid mainstays. The following section explores the role of remote community stores in the efforts of First Peoples to achieve food and nutrition security, a role that can be likened to the rationing outposts of the colonial era.

4.4.2 Remote Community Stores: Contemporary Rationing Posts

For First Peoples living in remote and very remote communities across Australia (see Chapter 1), the nearest regional supermarket may be several hours drive away. Many households lack access to motor vehicles, making travelling long distances for food impractical. As such, their primary and sometimes sole source of store-bought food is purchased from remote community stores

(Pollard, 2013). Various surveys and studies report that up to 95% of all food supplies are purchased from remote stores and takeaway shops (Bussey, 2012, p. 2). Therefore, like the rations administered to First Peoples during the colonial period, community stores play an equally pivotal role in the food and nutrition security of remote Indigenous communities.

Figure 4.1: The community store in Baniyala, East Arnhem Land (Source: Northern Territory News, 2018).

Remote community stores, however, are hampered by a number of issues that imact food security and nutritional well-being within remote communities. As Pollard (2013) notes, "transport logistics contend with extreme outside temperatures, long distance hauls, poor road conditions (and sometimes road closure due to flooding)" (p. 101). These factors contribute to exponentially high freight costs, particularly where refrigeration is required (Lee, 1996; Webb & Leeder, 2007). Furthermore, a survey conducted with remote community store managers found that stores are often riddled with infrastructural problems including limited storage space and inadequate refrigeration (Pollard et al., 2014). As a result, food deliveries to remote communities are irregular, particularly those containing perishable items like dairy, fruit and vegetables (Davy, 2016; Lee, 1996; Saethre, 2005).

A study of remote communities across the Northern Territory for example, found that 55% of communities "lacked access to fresh foods for extended periods of time" (Davy, 2016, p. 212).

Similarly, a study conducted by Scelza (2012) in the Parnngurr community of Western Australia discovered decreased stocks of fresh produce and meats during the rainy season, where poor road conditions hampered food deliveries and the ability of residents to travel to access other food sources. Critically, perishable foods are generally those which contain the essential micronutrients required to achieve food and nutrition security. Therefore, as Scelza (2012) asserts, market scarcity, which is often overshadowed by economic hardship, must be considered a primary determinant of the food and nutrition insecurity in remote Indigenous communities.

Figure 4.2: Poor road conditions hinder deliveries to Ramingining, East Arnhem Land (Source: Arnhem Land Progress Aboriginal Corporation, 2020).

The attitudes of store managers in remote communities have also been proven to influence the availability of fresh foods. Many managers are unwilling to bear the financial risk associated with perishable foods that carry high overheads, and thus prefer to stack their shelves with nutritionally inferior long-life and convenience foods (Lee, 1996; Scelza, 2012). A study produced by Lee et al. (1996), focusing on the attitudes of three store managers across two remote communities, found that the nutrient densities were highest in the community where the community store manager had an interest in the health of First Peoples, and who had previously been involved in a nutrition-intervention project. As a result, the store manager ensured fresh fruit and vegetables were air-freighted daily, guaranteeing freshness and constant supply, and displayed the produce prominently to customers under cold storage (Lee et al., 1996). Importantly, given that many community stores hold a monopoly in food distribution within remote communities, the food security and nutritional well-being of First Peoples remains precariously reliant on the attitudes of these retailers.

The array of factors inhibiting the consistent supply of nutritionally dense fresh foods to remote communities have led to remote Aboriginal and Torres Strait Islander peoples becoming overwhelmingly reliant on a narrow range of non-perishable foods, instant or frozen meals and takeaway items (see Figure 4.3 and 4.4) (Davy, 2016; Saethre, 2005). An analysis of the role of remote community stores affirms that a lack of food *availability*, exacerbated by a lack of physical *access* to larger supermarkets, remains central to the demise of food and nutrition security within these communities. This is particularly relevant to the proliferation of hidden hunger, micronutrient deficiencies and malnutrition in remote Indigenous communities, which are strongly linked with the underconsumption of fresh foods and inadequate dietary diversity (see Chapter 3).

Figure 4.3: An understocked fresh produce chiller in remote Western Australia (Source: Food Bank Western Australia).

Figure 4.4: Ready-to-eat meals in excess at a remote community store in Western Australia (Source: Food Bank Western Australia).

Remote community stores have proven to be a post-colonial extension of the convenience and consistency offered by rationing outposts during the colonial era. Much like the foods distributed from these outposts, remote community stores continue to saturate the diets of First Peoples with nutritionally devoid items. This unrivalled convenience has increasingly worked to alienate First Peoples from the procurement of bush tucker, and thus the need to retain, utilise and transmit food-specific Indigenous knowledge. The inability of remote community stores to single-handedly support positive outcomes in food security and nutritional well-being within remote Indigenous communities further underlines the inherent failure of the market-driven conventional system. The following section will explore the profound challenges First Peoples face in attaining food and nutrition security within this system given the rife socio-economic disadvantage within many of these communities.

4.4.3 The Cash Economy and Socio-Economic Disadvantage

As First Peoples have become progressively detached from their traditional economy and integrated into a Westernised cash economy, the pervasive injustices of a post-colonial society have left the majority of these communities markedly prone to economic disadvantage (Adams et al., 2012; Davy, 2016; Saethre, 2005). In 2016, the median weekly household income for Aboriginal and Torres Strait Islander people over the age of 15 was $623AUD, a figure 33% lower than the average household income earned by non-Indigenous Australians (Australian Institute of Health & Welfare [AIHW], 2019a, para. 8). As Figure 4.5 illustrates, average personal income varied greatly by remoteness and was 55% lower in very remote communities ($286AUD), compared to major cities ($513AUD) (AIHW, 2019a, para. 10).

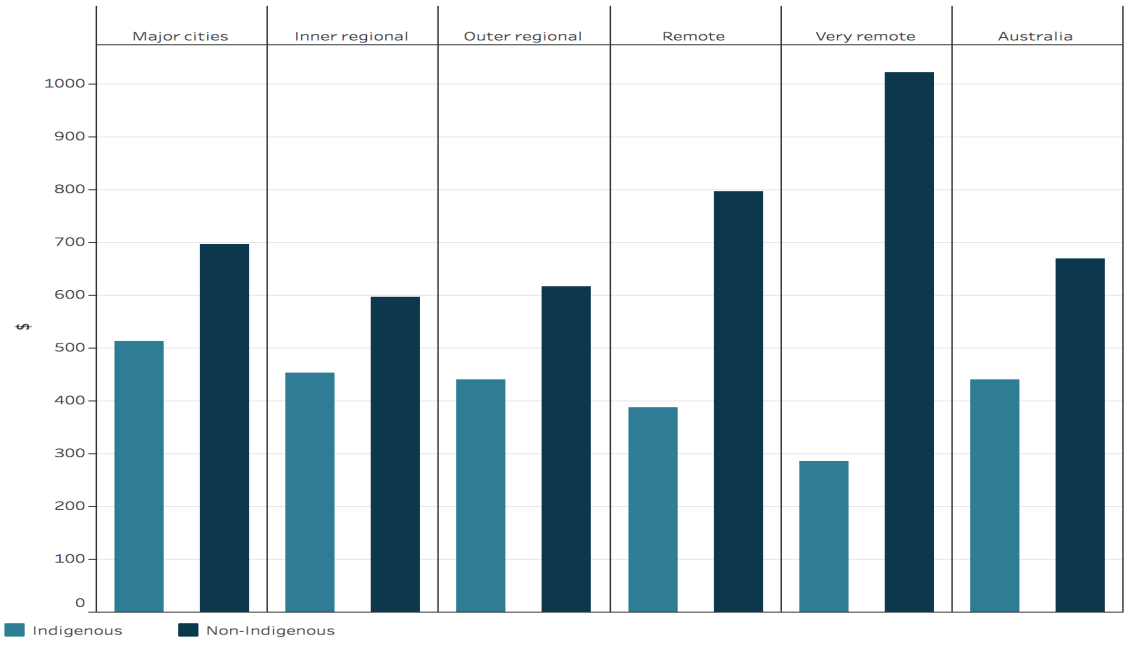

Figure 4.5: Median weekly personal income by Indigenous status and remoteness (Source: ABS, 2019).

Additionally, on average, First Peoples aged between 15-64 were 1.9 times more likely to be unemployed than non-Indigenous Australians AIHW, 2019b, para. 7). Again, employment rates demonstrated disparity across locality, with a 31% employment rate in very remote areas compared to 54% in major cities (AIHW, 2019b, para. 12).

Further exacerbating the socio-economic disadvantage of remote Indigenous communities, is the relationship between food cost and remoteness, which has been consistently documented since

the 1980s (Brimblecombe, 2007). The 2016 Northern Territory Market Basket Survey (MBS) found that the current diet basket (CDB), which mirrors the dietary trends of First Peoples, was 27% more expensive in remote stores compared to Darwin supermarkets, whilst a healthy food basket (HFB) was 29% more expensive (see Figure 4.6 below) (Northern Territory Government, 2017, p. 3). As Brimblecombe (2007) explains, the high price of food in remote locations throughout Australia correlates clearly to the aforementioned factors that limit the *availability* of foods in remote communities, as store owners account for high transport costs, spoilage risks and refrigeration costs when pricing stock.

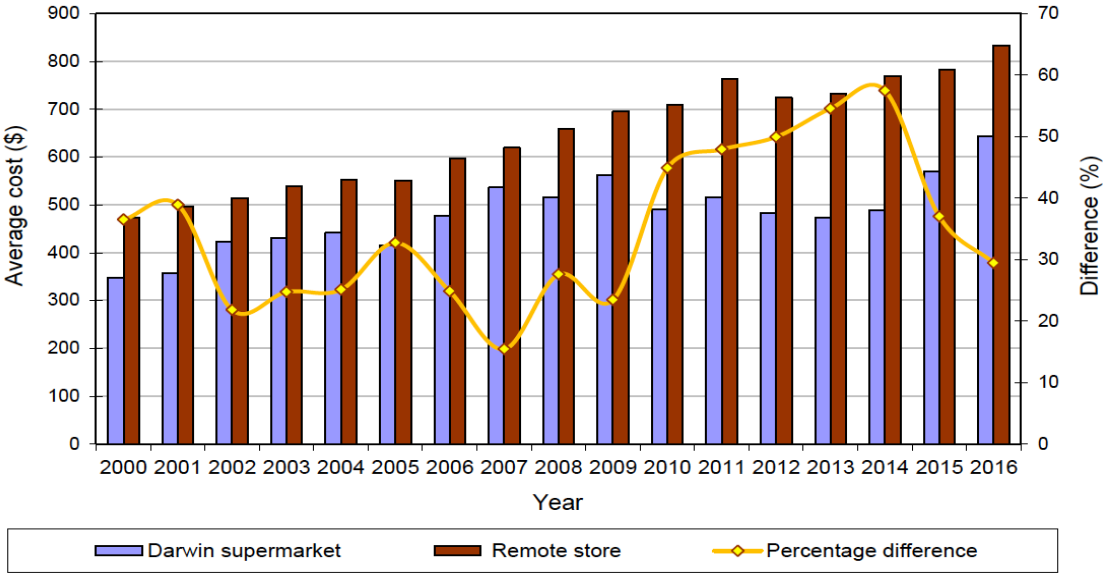

Figure 4.6: Cost of healthy food baskets in remote stores compared with Darwin supermarket (Source: Northern Territory Government, 2017).

As unemployment and low-income combine with high food costs to limit the economic *accessibility* of foods, remote Indigenous communities are faced with a complex challenge. Crucially, the nutrient-rich fresh foods which are essential in achieving food and nutrition security are often those that come at a higher price, with studies suggesting that First Peoples compromise the nutritional quality of food before quantity. Socioeconomic disadvantage, and the quest to maximise "calories for dollars spent" (Brimblecombe & O'Dea, 2009, p. 550) works to explain in-part the proliferation of low-cost and energy dense foods such as white bread and flour in the average diet of First Peoples, as discussed in Chapter 3. As one participant in a study conducted by Brimblecombe et al. (2014) states, "Long life - we eat damper, [lots of people] eat

bread, light one, fills up for longer, stays longer next day" (as cited in Brimblecombe et al., 2014, p. 395). When combined with habit and convenience, cost consideration not only works to direct First Peoples towards nutritionally devoid and convenient foods, but also draws them away from utilising traditional foods and knowledge as a means of supporting their food and nutrition security.

Socio-economic disadvantage amongst Aboriginal and Torres Strait Islander peoples is undoubtedly underpinned by widespread government welfare dependency. Recent statistics show that 52% of First Peoples rely on government welfare as their primary source of income, compared to 25% of non-Indigenous Australians. Welfare dependency also varies greatly by remoteness, increasing to 65% in very remote areas (AIHW, 2019a, para. 11). As Scelza (2012) notes, the majority of "government programmes operate on a two-week income cycle, which has been linked with oscillation between feast and famine periods" (p. 108). Saethre (2005) observed this cycle amongst the Warlpiri people, where the period of 'feast' occurred during pay week in which food expenditure skyrocketed exponentially. During this period, the nutritionally dense foods associated with higher pricing are more likely to be consumed. As such, economic resources for food are often exhausted in the days following government pay-outs, leaving households facing a week of famine referred to in Lajamanu as their 'low week' or 'Milo week,' in reference to the chocolate malt powder (Saethre, 2005). During the famine week, families often solely rely on non-perishable, nutritionally devoid staples, with some families surviving on a diet consisting of little more than damper. As one participant in the study conducted by Brimblecombe et al. (2014) stated, "no food and then come to pay week, little bit food, damper, sugar, and then coming to pay week, more food" (p. 395). The cycle encourages the inconsistent consumption of a nutritionally dense and diverse diet associated with hidden hunger and moderate food insecurity, whilst more chronic hunger may also be present during the famine week. Of equal concern, is the often-rapid overconsumption of luxury items during the feast week, which foreshadows forms of malnutrition such as overweight and obesity.

Of further consequence is the poor state of housing and food-related infrastructure in remote Indigenous communities. Between 1999-2006, Torzillo et al. (2008) conducted standardised assessments of housing in 132 Aboriginal and Torres Strait Islander communities and found that

a mere 6% of Indigenous households had “adequate facilities to store, prepare and cook meals” (p. 10). Similarly, a study conducted by Bailie and Runcie (2001), which surveyed 3906 households in the Northern Territory uncovered that infrastructure required for the storage and preparation of food was the most commonly identified non-functional form of household infrastructure, at 62% (p. 1). Of these food-related infrastructural components, the kitchen bench (26%), stove top (41%) and oven (42%) were most frequently identified as non-functioning (p. 3). The AIHW (2015) reports that households lacking functioning facilities and infrastructure are highest in remote areas (see Figure 4.7 and 4.8).

Figure 4.7: A non-functioning oven and stove top in Minyerri, Northern Territory (Source: Vanovac & Wellington, 2017).

Figure 4.8: Cooking facilities at a town camp in remote Central Australia (Source: Vanovac & Wellington, 2017).

These findings show a clear correlation to the *utilisation* pillar of food security. The inoperative state of household infrastructure required to prepare, cook and exploit the nutritional density of fresh foods, paves the way for the prevalence of pre-packaged and pre-cooked foods that require little preparation or cooking. These foods are shown to contribute overwhelmingly to the hidden hunger, moderate food insecurity and malnutrition within remote Indigenous communities.

Lastly, the socio-economic disadvantage experienced by First Peoples has hindered their ability to reconnect with the traditional food system. Colonialism has shifted the parameters of hunting leaving First Peoples reliant on costly weapons, hunting licenses, access to four-wheel-drive vehicles and other supplies such as petrol and ammunition (Saethre, 2005). As Saethre (2005) discovered, hunters in Lajamanu are forced to travel upwards of 100 kilometres away from the community to find game, a reality seemingly underpinned by the depreciation of the once bountiful Country surrounding remote communities (p. 164). A study conducted by Leonard et al. (2017), similarly, found that the consumption of bush tucker was reliant on economic access to resources and supplies. Leonard et al. discovered that participants reported higher

consumption of "bush food in 'pay-week' (21%) compared to 'not pay-week' (4%)" (p. 440). Such studies work to demonstrate the complex ways in which the ongoing effects of colonialism work to dissociate First Peoples from their traditional foods and food-related knowledge. However, First Peoples have also been left lacking knowledge and understanding of the post-colonial food system. This shift will be explored in the following section.

4.4.4 Food and Nutrition Literacy

A plethora of evidence supports the dichotomy between First Peoples' understanding of the traditional food system, compared to the conventional food system. As Brimblecombe et al. (2014) found, First Peoples "shared a common perspective that knowledge of the traditional food system made food choices within the system seem simple" (p. 392). However, the gradual proliferation of an alien food regime in which Aboriginal and Torres Strait Islander lack historical experience and understanding, has left many communities feeling disempowered to prosper within this system. As Brimblecombe et al. (2014) uncovered, this is particularly true amongst older generations, who feel they are under-equipped to transmit food-related wisdoms and guide the decision-making of younger generations, as they had done so successfully under the traditional system. This lack of confidence is exacerbated by the increasing autonomy of youth, who are even more privy to contemporary convenience and choice. As such, many Elders expressed fears that their youth were "forgetting about" or "losing the taste" for bush tucker and were increasingly stripped of opportunities to acquire food-specific Indigenous knowledge (Brimblecombe et al., 2014, p. 393).

This lack of food and nutrition literacy relating to the conventional food system may explain the food-related attitudes and perceptions of First Peoples, that at times appear contradictory and perplexing. For example, Brimblecombe et al. (2014) found that whilst some participants described colonial staples as 'proper foods', they denounced recent additions to the food system such as confectionary and fatty takeaway foods as underpinning poor health outcomes, despite these foods containing a similar nutritionally-devoid profile to colonial staples. Feelings of disenfranchisement within the conventional food system have also led to ascriptions of blame, which cloud the ability of First Peoples to attain food and nutrition security. As Saethre (2005)

discovered, despite stocking a large selection of fresh and nutritious foods, the Warlpiri people attributed sole responsibility for their food-related health outcomes to the non-Indigenous owned community store.

Illuminating the effects of low nutrition literacy amongst Aboriginal and Torres Strait Islander peoples is recent evidence derived from the 2016 Northern Territory MBS. The survey identified that a recommended 'healthy' diet[1] is in fact cheaper than the current diet that permeates many Indigenous communities (see Table 4.1 below). The 2016 Northern Territory MBS found that the HFB was on average eight percent less expensive than the CFB (Northern Territory Government, 2017, p. 23).

	Alice Springs	Barkly	Darwin	East Arnhem	Katherine	Average
Supermarket						
Healthy food basket	$576		$644	$657	$559	$606
Current diet basket	$672		$705	$785	$613	$694
Corner store						
Healthy food basket	$655		$704		$771	$710
Current diet basket	$718		$728		$816	$754
Remote stores						
Healthy food basket	$860	$895	$806	$823	$802	$833
Current diet basket	$906	$922	$889	$929	$877	$898

Table 4.1: 2016 Northern Territory Market Basket Survey - Current Food Basket versus Healthy Food Basket costs

(Source: Northern Territory Government, 2017).

Similarly, a study conducted by Lee and Lewis (2018), which utilised the Healthy Diets Australian Standardised Affordability and Pricing (ASAP) methods to analyse price differential and food affordability in five remote Indigenous communities, discovered that a healthy diet is approximately 20% more affordable than the current diet (p. 1). Such studies underscore the convoluted state of food and nutrition security in remote Indigenous communities, where First Peoples' lack of nutrition literacy pertaining to the conventional food system combines with a plethora of complex factors with strong ties to the colonial era to influence outcomes that may appear easily avoidable to many on the outside looking in.

[1] The 2016 Northern Territory 'Healthy Food Basket' did not include bush foods. The exclusion of traditional foods from the average 'healthy diet' of First Peoples in the Northern Territory is in itself problematic, and further illustrates the hegemonic positioning of the conventional Western food system within Indigenous communities.

4.5 Conclusion

The arrival of the first European occupiers sparked rampant land dispossession and degradation, the proliferation of rationing and the forced removal of Aboriginal and Torres Strait Islander children from their families. These impacts of the colonial tirade combined to decimate the pre-contact economy and traditional food system of First Peoples, and along with it, the retention and transmission of food-specific Indigenous knowledge. Yet the remnants of the colonial era endure in a contemporary context. Within the post-colonial food system, familiarity stemming from the colonial era has fostered the ongoing preference for nutritionally devoid colonial staples and warped perceptions of what constitutes 'proper' foods. Remote community stores have replaced rationing stations as the main means through which First Peoples living in remote Australia attempt to achieve food and nutrition security. Yet, underpinned by a plethora of exacerbating factors, these stores often offer inadequate supplies of fresh foods and are instead laden with choices scantily superior to those of the rationing era. Similarly, First Peoples living in remote communities – many of whom experience economic disadvantage, are restricted in their ability to access and utilise the nutritionally dense foods required to achieve food and nutrition security. As the Westernised, industrialised, and capitalistic food system has slowly validated itself within Australia, First Peoples have not only become increasingly estranged from their rich stocks of bush foods and food-specific Indigenous knowledge, they have equally been left disaffected in an alien system in which they the lack nutrition literacy required to thrive.

However, diverse accounts of the traditional food system, nutritional well-being and harmonious ecological existence of Australia's First Peoples prior to colonisation, provides a contemporary reminder that Aboriginal and Torres Strait Islander people once prospered from their innate knowledge of their lands and seas. These historical accounts build upon the contemporary evidence provided in Chapter 3, further illuminating the promise and potential of Indigenous knowledge systems and traditional foods to support food and nutrition security in remote Indigenous communities in the present-day.

Chapter Five: Methodology

5.1 Introduction

In seeking to highlight the rich food-related knowledge, practices and cultures of Aboriginal and Torres Strait Islander peoples, it was of utmost importance that the research methodology was designed and delivered accordingly. The following chapter outlines these methodological considerations, and the specific methods that have been employed to generate the data required to answer the research questions. Before doing so, this chapter briefly explores the history of harmful research done upon Indigenous peoples by Western researchers. In seeking to avoid perpetuating such harm, I then reflect on my own positionality as a non-Indigenous researcher and cultural outsider. Next, this chapter introduces the Indigenous research paradigm, which forms the foundation of the research methodology, before addressing the impact of COVID-19 on the design of this study. The Indigenous oral tradition of storytelling or *yarning* as it is referred to by Australia's First Peoples, will then be discussed as the primary means for generating data. This chapter then explores the Ngangikurungkurr principle of *dadirri,* or deep listening, which will underpin the yarning process, before outlining the method of document analysis, which serves as the ancillary desk-based method of data collection for this thesis. Finally, this chapter briefly highlights the limitations for this research.

5.2 A History of Harm

For centuries, Indigenous peoples have encountered research in which they have become silenced and disregarded as placid subjects of the Western gaze (Martin & Mirraboopa, 2003; Rigney, 2001; Smith, 1999). Therefore, as the influential Indigenous scholar Linda Tuhiwai Smith (1999) powerfully asserts, "the word itself, 'research,' is probably one of the dirtiest words in the indigenous world's vocabulary" (p. 1). Despite the best efforts of Western researchers to paint themselves and their research as impartial and objective, the underlying

principles of Western research *on* Indigenous peoples are deeply-rooted within imperial interests, thus constituting a tool in which to maintain and strengthen the post-colonial dismissal of all that is 'other' (Brayboy et al., 2014; Roy, 2012; Russell-Mundine, 2012). Rigney (2001) argues that as "the most researched group in history," Australia's First Peoples have felt the brunt of a history of inherently harmful research. Subsequently, Aboriginal and Torres Strait Islander peoples remain justifiably wary and resistant towards Western researchers and other non-Indigenous outsiders (Martin & Mirraboopa, 2003), who share the overwhelming tendency to perform pernicious and non-reciprocal "smash and grab research" (Braun et al., 2014, p. 122). However, as the next section will make clear, my attempt as a non-Indigenous researcher to avert the destructive practices of many of the researchers that came before me, requires that I first engage in a deep level of reflexivity.

5.3 Reflexivity

In any attempt to conduct culturally safe research involving Indigenous peoples, as a non-Indigenous researcher I must first critically reflect upon my worldviews, privileges, assumptions and biases, as well as those enmeshed in colonial histories and the institutions of Western society. Without this deep level of reflexivity, and without challenging the underlying systems that continue to silence Indigenous voices, non-Indigenous researchers cannot contribute to decolonising research practice. Instead, they risk extending the reign of the dominant Western research paradigm (Rix et al., 2018; Russell-Mundine, 2012).

As a white, straight male, raised in a middle-class home in the predominantly white city of Christchurch, in Aotearoa/New Zealand, I all but define privilege. I was born to a white American father and a Pākehā mother, and thus I am directly tied to my British ancestors and a colonial history wrapped up in injustices against Māori peoples and the lands and waterways that are rightfully theirs. I was baptised and confirmed as a Catholic, although I have since dissociated myself from the Catholic church. I received a secondary education at a respected all-boys Catholic school and am currently in the fifth year of tertiary education at the Western academic institution of Massey University.

I have grown up within dominant Western systems and structures whereby I have been socialised and programmed to believe Indigenous ways of knowing and being are 'other', archaic, inferior and irrelevant to my contemporary existence. For the majority of my life, I was sheltered from meaningful and authentic encounters with Indigenous peoples and cultures. However, undertaking this research has inspired me to reflect on, challenge and unravel 25 years of consciously and unconsciously exuding the white privilege, biases and assumptions of the dominant Western culture in which I am firmly planted. Admittingly, this process has been gradual and rife with challenge and contradiction. My critical reflexivity can never be completed nor solved; it is an ongoing process.

Despite my best efforts to engage in critical reflexivity, and to honour Indigenous ways of knowing and being, this thesis remains part of the fulfillment of a Master's programme offered by a Western academic institution. Although the International Development Studies team are supportive of my effort to conduct culturally safe research in an Indigenous space, they remain cogs within an institutional hierarchy entrenched in bias and privilege. Whilst these conflicts are by no means insuperable, they represent crucial considerations moving forward if I am to conduct culturally appropriate research with Australia's First Peoples.

Whilst reflecting on the historical harm done upon Indigenous peoples, as well as my own white privilege and position within dominant Western society has its individual merits, the real power of the reflexivity process stems from its influence on the research methodology and methods selected for this study. As not to exude my white privilege and positionality in a way that is harmful to First Peoples participating in the research process, the research methodology and methods aim to deconstruct and decolonise the dominant Western research paradigm. The following section explores the research methodology selected for this study in more depth.

5.4 An Indigenous Research Paradigm

In order to ensure the cultural propriety of the research and the safety of Elders participating in the Tennant Creek case study, my methodology is guided by an Indigenous research paradigm.

The word ‘paradigm’ is in itself contentious, as it shares strong links to Western scientific tradition and risks inciting arbitrary comparisons between Indigenous and Western modes of research (Smith, 1999). However, this terminology will be adopted as it appears consistently throughout the literature authored by Indigenous scholars. The Indigenous research paradigm has grown to prominence, as Indigenous scholars and non-Indigenous allies have sought methodologies that privilege Indigenous ontology, epistemology and axiology (Hart, 2010; Geia, et al., 2013; Shahid et al., 2009). The paradigm seeks to critically interrogate and dismantle the hegemonic authority and institutional practices of Western research and scientific thought, decolonising methodologies, and (re)claiming research in a manner that contributes to the emancipatory interests and intellectual sovereignty of Indigenous communities (Brayboy et al., 2014; Rigney, 2001; Smith, 1999). My no means does this research claim to decolonise Western research practice altogether, rather it attempts to make a small but meaningful contribution to doing so.

Central to the Indigenous research paradigm, is the core belief that knowledge cannot be discovered and owned by an individual. Rather, Indigenous peoples believe that knowledge is relational, and is to be unveiled and shared by all of creation (Brayboy et al., 2014; Moreton-Robinson & Walker, 2009; Wilson, 2001). My methodology is therefore steeped in considerations of relational accountability to Australia’s First Peoples, their Country and culture (Wilson, 2008). In order to achieve this type of relational accountability, Rix et al. (2018) suggest that a researcher must be guided by the principles of reciprocity, respect and responsibility, which align with Indigenous ways of knowing and being (Rix et al., 2018). These core principles are similarly listed by the National Health and Medical Research Council (NHRMC) as part of its ethical guidelines for conducting research in Aboriginal and Torres Strait Islander communities (2018).

In-line with NHRMC (2018) guidelines, this study seeks to demonstrate reciprocity by ensuring “communities have the right to define benefits according to their own values and priorities” (p. 7). As will become clear in Chapter 6, participants in this study outline multiple benefits stemming from community-led bush food production and Indigenous knowledge transmission that transcend food and nutrition security, and instead align with the broader aspirations of First

Peoples. Rather than quashing these results as irrelevant to the focus of this study, the study responds to the views and concerns of First Peoples by broadening the scope of its discussion and conclusions (see Chapter 8). Furthermore, reciprocity is intrinsically tied to the assumption that knowledge and findings will be shared with the community, and in-turn be used to advance the aspirations of the community and Indigenous peoples more broadly (Hart, 2010; NHRMC, 2018). As part of this process, the findings from this study will be disseminated to the research participants and the wider Tennant Creek community (see section 5.6) in an appropriate and desirable format as directed by the community. In addition, I intend to demonstrate long-term reciprocity to the research participants, the Tennant Creek community and First Peoples across Australia, using this study as a springboard for publishing academic articles, with the hope that these publications can inform future interventions.

Fulfilling a relational approach to research also required that I was profoundly responsible towards the relationships in which I entered (Brayboy et al., 2014). As Martin (2008) contends, the researcher is not only responsible for sustaining healthy relationships, but equally in acknowledging the severity of potential harms that could arise from a lack of responsibility. Mirroring the guidelines provided by the NHRMC (2018), prior to seeking consent I took great care in delivering a research hand-out to prospective participants in Tennant Creek, ensuring that they had a clear understanding of the intended research so that they could consider any potentially harmful implications. Once agreeing to yarn with me, Elders were given the option of anonymity, their permission was gained to record and transcribe the yarns, and they were asked how they would like to be referred to as part of the research. Furthermore, ongoing consultation occurred during the write-up process, in ensuring that I had accurately transcribed and understood culturally significant ideas, names and words, and that narratives I deemed to bring any potential risk or harm to the participants had been ‘signed-off’ before final submission. Lastly, the Indigenous research paradigm supposes that responsible and reciprocal relationships are to be built on a shared and constantly evolving respect (Rix et al., 2018). Smith (1999) posits that respect is seen by Indigenous peoples to ensure “the place of everyone and everything in the universe is kept in balance and harmony” (p. 120). As such, respect was deeply embedded into all facets of my behaviour, attitude and conduct when yarning with Elders in Tennant Creek. Mirroring the guidelines provided by the NHRMC (2018), my study also demonstrated respect in

"acknowledging the individual and collective contribution of Aboriginal and Torres Strait Islander participants and groups" (p. 10) (see Acknowledgments).

My endeavour to honour an Indigenous research paradigm and indeed my ability to demonstrate responsibility, reciprocity and respect was undoubtedly challenged by the restrictions enforced as a result of the COVID-19 pandemic, which will be discussed in the following section.

5.5 Conducting Research During COVID-19

The outbreak of the COVID-19 pandemic resulted in unprecedented restrictions imposed on international travel. In undertaking this study, I had planned to spend five weeks conducting fieldwork in Tennant Creek (see Chapter 6). I intended to spend the first three weeks of this period building trusting relationships with First Peoples in the community, aided in-part by having access to the personal network of my friend Michelle, who has lived and worked with First Peoples in Tennant Creek for the past six years. Whilst on the surface Michelle presents as *mitidji* (a word used by the Warumungu people of the Tennant Creek area to describe a white person), she is a descendant of the Anaiwan and Gamileroi peoples of New South Wales and feels a strong connection to her Aboriginal heritage. Michelle has become a widely trusted and respected member of the Tennant Creek community through her work for First Peoples Disability Network, as a caregiver and foster parent of Aboriginal children, and as a leader in community development, through projects such as the Paterson Street Hub community centre. Spring-boarding from the initial trust and relationships built with community members during the first three weeks of fieldwork, I planned to yarn with willing participants about research-related topics. In addition to yarning with First Peoples in Tennant Creek, I planned to collect data through participatory observation, with Michelle forecasting opportunities to go out on Country to hunt, gather, harvest and learn about bush foods with Elders.

However, this fieldwork was made impossible as flights ceased between New Zealand and Australia. As such, I was forced to adapt my methods of data collection and the decision was made to conduct yarns with Elders via Zoom. This research acknowledges that shifting yarns to a virtual platform is far from ideal and undercuts my attempts to conduct research that utilises the

intellectual traditions of Aboriginal and Torres Strait Islander peoples. However, the decision was made in ongoing consultation with Michelle, who worked as an intermediary to seek the assurances of Elder in the community, including those involved directly in the research. Whilst yarning traditionally occurs in-person, in my best attempt to ensure the yarns followed the same protocols as those that would occur in-person, I sought to first engage with participants in social yarns whereby news, general gossip and personal information relating to myself and my research could be shared. These introductory yarns, and particularly the sharing of personal information, such as kinship ties, are deemed essential in developing respectful and trusting relationships with First Peoples (Bessarab & Ng'andu, 2010; Geia et al., 2013). As Bessarab and Ng'andu (2010) assert, by sharing information about oneself "the relationship shifts from expert to person to person, enabling a more real and honest engagement as researcher and participant" (p. 42). The next challenge was to find a secondary means of desk-based data collection to replace that fulfilled my quest to focalise Indigenous ways of knowing and being within this study. To my advantage, occurring simultaneously to my own research, was the ongoing federal government-led inquiry in food security and food pricing in remote Australian communities. I viewed the analysis of documents submitted as part of this inquiry as not only an effective means of supplementing findings derived from yarns conducted remotely with Elders in Tennant Creek , but also as an opportunity to compare and contrast the views of Indigenous communities with corporate and government Australia (see Chapter 7).

The revised methods selected as part of this study will be explored in greater depth in the following sections.

5.6 Yarning: The Narrative Tradition of Australia's First Peoples

At the heart of this research project, is a quest to privilege, preserve and respect Aboriginal and Torres Strait Islander voices. The Indigenous research paradigm recognises that it is only through the utilisation of Indigenous practices, protocols and methods that this can occur (Brayboy et al., 2014). As such, the Indigenous Indigenous tradition of storytelling was selected as the primary

means of generating data. Within an Australian context, First Peoples refer to the "telling and sharing of stories and information" as *yarning* (Bessarab & Ng'andu, 2010, p. 38). The practice of yarning is as flexible and diverse as the plethora of nations and language groups who utilise it (Dean, 2010). Yarns range from relaxed social engagements where stories of past and present are shared over a meal or *kapati* (cup of tea) (Ober, 2017), to more purposeful and formal interactions such as an Elder calling a younger person aside to impart with important cultural knowledge (Dean, 2010).

By yarning with participants, albeit via Zoom, I endeavoured to provide a culturally safe space for knowledge custodians to control what was shared and the manner in which this knowledge was shared (Barlo, 2017). In doing so, yarning fundamentally challenged the dominant research paradigm, where research practices involving Indigenous peoples have predominantly been led by Western academic 'experts.' In yarning with participants, First Peoples in Tennant Creek were rightfully positioned as the teachers, and I, as a non-Indigenous outsider, the learner (Dean, 2010; Geia et al., 2013). Yarns sought to emphasise the voice of First Peoples and underline their authority over their culturally complex knowledge systems (Barlo, 2017; Dean, 2010). Furthermore, as Dean (2010) asserts, yarning encourages trusting, accountable and reciprocal relationships to form between the researcher and First Peoples, "in a way that celebrates the equal contribution to research of Aboriginal culture" (Dean, 2010, p. 10). Yarning as a research method was therefore congruent with the overarching principles of the Indigenous research paradigm.

The choice of yarning also took into consideration the aim of this research, which was elucidating the rich and complex knowledge of First Peoples. As Fredericks et al. (2011) contend, the familiarity of yarning amongst First Peoples facilitates open and honest communication as relationships unfold during the yarning process. This trust and transparency proved essential, as I sought to reveal complex and sensitive layers of knowledge and insight entwined in the stories of First Peoples. Of further benefit to the research, was the fact that yarning is a holistic process, which takes into account the past, present and future (Dean, 2010; Geia et al., 2013). As Geia et al. (2013) neatly summarise:

> Yarning almost always contains the threads of Aboriginal and Torres Strait Islander history as it moves into the present tense, its parameters within present time is filtered through the memories of the past as the two move simultaneously and at points collide and reveal fragments of the future (p. 15).

This integration of the past and present was paramount in understanding historical shifts in the food and nutrition security of Australia's First Peoples, as well as changes in the willingness and ability of these communities to draw upon food-specific Indigenous knowledge and bush tucker in supporting their food security and nutritional well-being. Similarly, the integration of the future as part of these narratives provided crucial insights into the aspirations of First Peoples to reinvigorate the everyday role of their traditional foods and knowledge.

Whilst the yarns remained a casual and interactive space for participants to share their stories and knowledge, it was also at times purposefully directed towards the research topic. Despite this direction, true to the nature of yarning, the conversation transpired organically without a set template, as participants were granted the opportunity to respond to the research topic as they deemed appropriate with limited interjection on my behalf (Bessarab & Ng'andu, 2010; Walker et al., 2014). Bessarab and Ng'andu (2010) found that in their own experiences with yarning, that intervening or interrupting when they felt the conversation was deviating from the research topic, or when language used by the participant was unfamiliar, "limited the potential of the information being imparted during the storytelling process" (p. 41). Thus, in order to avoid repeating the mistakes of fellow researchers, I aimed to take a back-seat role in yarns with Elders, and instead listened and reflected deeply on their valuable knowledge. Whilst a document containing some ideas pertinent to the research focus was present, it was used sparingly, and often in direct response to the lines of conversation pursued by the Elders in order to elicit further understanding or insight.

As a result of COVID-19, access to participants with whom to yarn, and indeed the scheduling of these yarns, relied heavily on the remote assistance of Michelle. Shahid et al. (2009) contend that non-Indigenous researchers and community outsiders often benefit from having a trusted local connection, as this person can assist with cultivating initial encounters and trusting relationships

with valuable research participants. Through her vast personal network of in-community connections, Michelle suggested four Elders for me to yarn with individually, and facilitated these yarns at her home, or at the Paterson Street Hub. Elders were purposefully selected given their role as the primary guardians of Indigenous knowledge within the community and their ability to attest to any shifts in the role of bush foods and food-specific Indigenous knowledge within the community over their lifespan. Elders were also selected because of their seniority and status within the community, which can give First Peoples greater license to speak on behalf of their peoples, and therefore, it was hoped that the yarns could capture the views of both the collective and the individual. Both Michelle and I felt that it was important to garner the unique perspectives of both male and female Elders given the differing gender roles and gender-determined experiences within the community, and thus the group consisted of two male and two female Elders. Michelle's suggestions of specific Elders with whom to yarn sought to cover a range of perspectives and experiences relevant to bush food and food-specific Indigenous knowledge. For example, Michelle's suggestions included both Elders living within the township with regular access to store-bought goods and those living on their homelands surrounding Tennant Creek who have more ready access to bush foods. A deeper description of the four Elders who participated in the study is provided in Chapter 6.

The following section explains the concept of *dadirri,* which proved vital in guiding the yarning process.

5.6.1 Dadirri: Deep Listening

The deep and reflective listening that was required as I yarned with First Peoples is encapsulated by the Aboriginal concept of *dadirri.* Although the term *dadirri* belongs to the language of the Ngangikurungkurr people of the Daly River area, the practice has many equivalent terms throughout the Aboriginal and Torres Strait Islander communities (Atkinson, 2000). Miriam Rose Ungunmerr (1993) asserts that *dadirri* is a "special quality, a unique gift of the Aboriginal people. It is inner deep listening and quiet still awareness - something like what you call contemplation" (p. 34). Similarly, Atkinson (2000) proclaims that *dadirri* is "more than just listening by the ear but listening from the heart" (p. 19). *Dadirri* encourages the researcher to construct their knowledge and understanding via a cyclic process based on intense sensitivity,

non-judgement, critical thinking, and the consistent process of self-reflection and contemplation (Atkinson, 2000; Stronach & Adair, 2014).

Channeling the philosophy of *dadirri* into the yarning process, and indeed when transcribing these yarns, became pivotal as I sought to understand complex veins of Indigenous knowledge that are enmeshed in equally intricate Aboriginal worldviews and histories. Adhering to this concept of listening became even more essential as the subtle moods and ambiences associated with in-person interaction were dulled by the parameters of the virtual world. By listening from the heart, I sought to understand some of these abstruse cues, many of which carried important contextual hints, or which ushered me towards pursuing or redirecting specific ideas and lines of conversation. Lastly, channeling *dadirri* throughout the yarning process facilitated my attempts to ensure relational accountability and responsibility towards the participants, particularly in ensuring I accurately understood and portrayed the information and knowledge the Elders chose to impart with during these yarning sessions (Atkinson, 2000).

5.7 Document Analysis

Whilst Chapter 7 provides contextual information surrounding the document analysis and the document selection process, the following section describes document analyses more broadly as a method of data collection and the design of the specific analysis utilised for this study.

O'Leary (2017) defines document analyses as "a research tool for collecting, reviewing, interrogating and analysing various forms of written 'text' as a primary form of research data" (p. 212). Whilst many authors attempt to differentiate between content and thematic document analysis, and their alliances to quantitative and qualitative research traditions (Clarke & Braun, 2017; Mackieson et al., 2019), Vaismoradi et al. (2019) assert that a lack of clear division between these approaches has seen the terms used interchangeably. Rather than attempting to adhere to any one approach, the analysis employed an organic and flexible approach (Clarke & Braun, 2007) that borrowed tools typically associated with both content analysis and thematic analysis, whilst simultaneously utilising quantitative and qualitative means of interpreting and analysing the data.

The manifest content or witting evidence, which is directly observable within the selected documents (Joffe, 2012; O'Leary, 2017), was interrogated using a number of predetermined keyword search terms (Mackieson et al., 2019; O'Leary, 2017). These search terms were representative of central themes of analysis, and were linked to *Research Question 3*, specifically *Objective 3.3* and *3.4*. Given the disputed and inconsistent use of the selected key search terms and the variance of the documents' authors, a number of terms synonymous with the keywords were included in the search to account for these discrepancies. The relationships between the research objectives, analysis themes and the key search terms are outlined in Table 5.1 below.

Research Aim	Research Question	Research Objectives	Analysis Themes	Search Terms
To explore the potential of bush tucker and Indigenous knowledge for improving food and nutrition security in remote Aboriginal and Torres Strait Islander communities	*RQ3:* How has traditional food and Indigenous knowledge been acknowledged in relation to food and nutrition security?	*O3.3:* Explore whether, and to what extent, Australian government-led policies, programmes and inquiries aimed at improving food and nutrition security are acknowledging the value of bush tucker and Indigenous knowledge *O3.4: Explore whether, and to what extent, Indigenous communities continue to recognise the potential of bush tucker and Indigenous knowledge to support their food and nutrition security*	*AT1:* Acknowledging the potential of bush tucker to support food and nutrition security within remote Indigenous communities	Bush tucker *or:* · Traditional food/s · Bush food/s
			AT2: Acknowledging the potential of Indigenous knowledge to support food and nutrition security within remote Indigenous communities	Indigenous knowledge *or:* · Traditional knowledge · Local knowledge · Cultural knowledge · Expert knowledge · Intergenerational knowledge · Aboriginal and Torres Strait Islander knowledge

Table 5.1: Document analysis themes and search terms and their relationship with research questions and objectives

(Source: Author)

In Chapter 7, the amount, frequency and context in which the search terms (O'Leary, 2017) appear within the selected documents will be discussed, as I allude to deeper patterns of latent or implicit meaning (Joffe, 2012; Mackieson et al., 2019). In Chapter 8, these deeper meanings will become clearer, as the results from the document analysis are discussed in relation to findings derived from yarns with Elders in Tennant Creek and the wider literature using my own intellectual interpretation (Mackieson et al., 2019). The following section discusses the perceived limitations of this study

5.8 Limitations

Whilst I have made every effort to ensure the validity, objectivity and accuracy of this research, there are unavoidable limitations that must be considered in reading and interpreting this thesis. As a predominantly qualitative study, this thesis is limited by the subjectivity of my own academic interpretations of the data, as well as those presented by other academics in the literature. Furthermore, this thesis is limited by the fact that I am a non-Indigenous person researching an Indigenous issue and am thus exposed to the biases and predispositions of mainstream Western society. To overcome this limitation, I have not only engaged in deep and ongoing personal reflexivity throughout the research process (see Section 5.3), but I have selected literature and designed this research in a way that ensures Indigenous voice is a strong and constant presence throughout.

The parameters enforced by Massey University, namely word-count, means that this study is limited by the quantity of primary data that it can generate. Whilst yarns were only conducted with four Indigenous participants, in selecting respected Elders from the Tennant Creek community, these narratives intend to provide a broader snapshot regarding the food and nutrition-related issues, aspirations and opinions of the wider community. Although these findings remain specific to one community, the document analysis was purposefully selected as a means of providing evidence from remote Indigenous communities across Australia. The combined findings from the Tennant Creek case study and the document analysis can be considered a strong indication of the bigger picture. However, given the unique diversity of Aboriginal and Torres Strait Islander nations, and the specific contextual factors experienced by each remote community, they cannot be considered definitive.

5.9 Conclusion

This chapter has provided an overview of the research methodology, and the specific methods utilised to generate the rich data that underpins this thesis. In employing an Indigenous research methodology, and guided by the principles of respect, reciprocity and responsibility, the research

seeks to avoid extending a history of inherently harmful research done upon Indigenous peoples by other Western researchers. Instead, despite the challenges presented by COVID-19, the research design emphasises Indigenous ways of knowing and being, and employs Australia's First People's narrative tradition of yarning, supported by the Indigenous concept of *dadirri*, or deep listening, as the primary method for data collection. This chapter also outlined the design of a document analysis, which serves as an ancillary method to supplement the primary data generated from yarns with First Peoples. Finally, this chapter outlined the limitations of this study.

The following chapter presents the findings from the yarns conducted with four Aboriginal Elders in Tennant Creek.

Chapter Six: Indigenous Community Perspectives: Yarning with Elders in Tennant Creek

6.1 Introduction

The following chapter discusses findings derived from yarns with four Aboriginal Elders living in the Tennant Creek township, or on the homelands surrounding Tennant Creek. Yarns were conducted on an individual basis with Brian Tennyson, a Warumungu, Kaytetye and Warlpiri man, Jakamarra 'John' Fitz, a Warumungu man and Traditional Owner of the Tennant Creek area (see Chapter 1), Valda Shannon, a Warumungu and Warlpiri woman, and Dianne Stokes, a Warumungu and Warlmanpa woman, and Traditional Owner of the Tennant Creek area. Before the findings are discussed, this chapter provides a historical overview of the Barkly Region, in particular the community of Tennant Creek, and describes the experiences of language groups in the area. The findings are then broken down into several key themes, which are linked to the Research Questions and Objectives. These themes include: the determinants of food and nutrition insecurity amongst First Peoples in Tennant Creek; the availability of and accessibility to bush tucker, and the benefits associated with procuring, producing and consuming these foods; the shifting landscape of food-specific Indigenous knowledge transmission; the recognised potential for bush tucker and Indigenous knowledge to support food and nutrition security amongst First Peoples in Tennant Creek; and the need for increased support, collaboration and a meaningful space for Indigenous voice in food and nutrition related interventions.

6.2 A Brief History of the Barkly Region and Jurnkkurakurr (Tennant Creek)

The area now referred to as the Barkly Tablelands is a region of far-reaching plains, arid deserts and colossal cattle stations, spanning upwards of 300,000 square kilometres (Boffa et al.,1994, p. 359) across the Northern Territory to the western border with Queensland (Anyinginyi Health

Aboriginal Corporation [AHAC], n.d.). Whilst the Warumungu people constitute the largest language group in the region, other language groups including Warlmanpa, Warlpiri, Jingulu, Garrwa, Mudburra, Kaytetye, Alyawarr, Anmatyerr and Wambaya also inhabit the Barkly. Census data from 2016 reports that of the region's 6,655 inhabitants, 68% identify as Aboriginal and/or Torres Strait Islander (Australian Bureau of Statistics [ABS], 2017a, para. 1).

The Warumungu people are the Traditional Owners of the area in and around the town referred to in Warumungu language as Jurnkkurakurr, now commonly known as Tennant Creek. Before European invasion, Warumungu were drawn to the permanency of sacred water holes in the area during times of drought. Today, Tennant Creek constitutes the Barkly region's largest township and is located on the Stuart Highway, approximately 500 kilometres north of Alice Springs and 1000 kilometres south of Darwin (see Figure 6.1 below) (Boffa et al., 1994, p. 359).

Figure 6.1: Map of Tennant Creek in relation to the Northern Territory (Source: Encyclopedia Britannica, n.d.).

The 2016 census reported that 2,991 people resided in Tennant Creek, 51.3% of whom identified as Aboriginal and/or Torres Strait Islander (ABS, 2017b, para. 1). This number includes those living on the homelands in town camps surrounding Tennant Creek (Barkly Regional Council, n.d.). The town is the hub of the region's tourism, with visitors drawn to the Battery Hill Mining Centre, the Nyinkka Nyunyu Art and Culture Centre and the nearby sacred sites of Karlu Karlu (Devil's Marbles) and Kunjarra (The Pebbles) (see Figure 6.2 below).

Figure 6.2: Map of Tennant Creek town (Source: Malone, 2007).

The establishment of an overland telegraph station near Tennant Creek in 1871 saw Europeans begin to settle in the area (AHAC, n.d.; Nash & Memmott, 2016). As experienced by other groups, colonists began to dispossess Warumungu people of extensive tracts of land soon after (AHAC, n.d., Wright, 2009). Many Warumungu had little option but to endure onerous work on

pastoral stations to ensure their survival, whilst others were imprisoned in slave camps "where they were starved, whipped and abused as no animal would have been treated, and were killed without a second thought" (Wright, 2009, p. 31). In 1892, the first Aboriginal reserve on Warumungu Country was created on a 390 square kilometre area of land to the east of the telegraph station. By 1915, the Warumungu people, who were first described as "tall, muscular and well-made" upon first contact, were reported to be "living in a state of semi starvation" by the Chief Inspector of Aboriginals (as cited in Boffa et al.,1994, p. 359-360). The discovery of gold in the area during the early 1930s birthed the establishment of the Tennant Creek township in 1935, which Warumungu people were forbidden from entering. In 1945 a ration depot and mission station were established at Phillip Creek, 43 kilometres north of the township. Here, Warumungu people gathered with members of other nations from the Barkly region who were also fleeing persecution. In 1956, Warumungu were completely exiled from their traditional lands into Kaytetye Country at the Warrabri settlement, now referred to as Ali Curung (Central Land Council, n.d.; Wright, 2009).

With the adoption of the 'self-determination' policy, First Peoples in the region began to move from pastoral stations and the Warrabri settlement to Tennant Creek town (AHAC, n.d.). This shift coincided with the establishment of the Central Land Council in 1973, and the first available housing for First Peoples in Tennant Creek, provided by the Warramunga Pabulu Housing association (now the Julalikari Council Aboriginal Corporation) (Nash & Memmott, 2016; Wright, 2009). The year 1989 saw the establishment of the Anyinginyi Congress Aboriginal Corporation (since renamed to the Anyinginyi Health Aboriginal Corporation), an organisation focused on providing primary health care for First Peoples in Tennant Creek and the surrounding Barkly region (Wright, 2009). As Wright (2009) notes, these three organisations worked incessantly in the years following to make significant gains in housing, health services and land rights for First Peoples in Tennant Creek and the wider region.

In 1978, the Central Land Council lodged a claim on behalf of the Warumungu people under the Aboriginal Lands Rights (Northern Territory) Act 1974 for the return of Warumungu land to its Traditional Owners. The claim was met by hostile tactics by the Northern Territory Government, taking until 1985 for the claim to be heard in the High Court. After a further six years of complex

negotiation and compromise with the Northern Territory Government and Tennant Creek Town Council, Warumungu land was rightfully returned in various stages between 1991-1996 (Central Land Council, n.d.; Wright, 2009). Following the partial return of their lands, the Warumungu people lodged their first native title claim over the town of Tennant Creek in 1999 under the *Native Title Act 1993*. Following four further claims, the Federal Court granted the Warumungu people native title over 27 square kilometres of land in Tennant Creek on September 3, 2007 (National Native Title Tribunal, 2007). As native title holders, Warumungu people possess the right to "travel over and access the land, hunt, gather and take natural resources and conduct ceremonies and other traditional activities" (National Native Title Tribunal, 2007, p. 2).

Despite obvious gains, the Warumungu people and other language groups living in Tennant Creek and the surrounding region continue to face rampant injustices, systemic racism, disparities in education, incarceration, employment, housing conditions and economic well-being stemming from a history of colonisation and perpetuated by federal and territory governments (Wright, 2009). The following section discuss the research findings derived from yarns with four Aboriginal Elders in the remote community of Tennant Creek.

6.3 Findings

Despite yarns being conducted via Zoom as a result of travel restrictions enforced by COVID-19 (see Chapter 5), the narratives of community Elders Brian, Valda, Dianne and Jakamarra were laced with rich insights and Indigenous knowledge of great relevance to the research questions. The following sub-sections present findings derived from these yarns, which are broken down into key themes that share a close relationship with the objectives of this thesis. This chapter begins by discussing the type of food and nutrition insecurity experienced by First Peoples in Tennant Creek (see *Objective 1.2)* and exploring the key determinants of the state of moderate food insecurity and poor nutritional well-being that persists within the community (see *Objective 1.3).* The following two sub-sections present findings regarding the enduring role of bush foods and food-specific Indigenous knowledge in the lives of First Peoples in Tennant Creek (see *Objective 2.2),* paying particular attention to the far-reaching benefits that community Elders

associate with the production, procurement and consumption of bush food, and the protection, transmission and utilisation of food-specific Indigenous knowledge. The two sub-sections also discuss the barriers that inhibit the ability and willingness of First Peoples in Tennant Creek to engage with their traditional food system, and where applicable, link these barriers to the enduring impact of Australia's dark colonial past (see *Objective 2.3).* This chapter then presents findings regarding the Elders' recognition of bush tucker and food-specific Indigenous knowledge as possessing the potential to support food and nutrition security within the community (see *Objective 3.4),* providing strong examples of Indigenous-led grassroots operations already in effect within Tennant Creek. Finally, this chapter draws upon the Elders' narratives to elucidate the need for increased support, collaboration and the valuation of Indigenous voice as part of food and nutrition-related interventions within remote Indigenous communities like Tennant Creek. In doing so, the chapter highlights the shortcoming of current government-led interventions to meaningfully acknowledge the potential of bush tucker and Indigenous knowledge to support food and nutrition security within remote Indigenous communities (see *Objective 3.3*).

6.3.1 The Determinants of Moderate Food Insecurity and Poor Nutritional Well-being amongst First Peoples in Tennant Creek

Acute food shortage did not emerge from yarns with the Elders as a situation commonly experienced by First Peoples in Tennant Creek. Instead, all four Elders noted the proliferation of store-bought discretionary and convenience foods in the diets of First Peoples. The Elders described these foods using terms such as "junk food" and "lazy food". As Brian asserted, "with all these other foods that come in from the shop, we don't know where they come from. To me, they are just toxic waste". Valda advanced this denunciation, proclaiming that the overconsumption of discretionary and convenience foods underpins the substandard general health of her peoples. As Valda stated, "it's all this food that we're eating that's making us very ill, and a lot of our people are dying off young". Both Valda and Dianne demonstrated particular concern towards the proliferation of convenience foods in the diets of younger generations, and shared stories of themselves challenging youth about their choices. As Valda exclaimed:

> I say this to my young people, ‘so you're living your life out of a plastic bag from the shop? You come home every time with something from the shop and you're not going to cook anything from home? Is that the choice you're making now?’

Whilst Valda’s exclamation suggests that the diets of youth are particularly overrun by discretionary and convenience foods, the culmination of the Elder’s narratives makes it clear that this is an issue facing First Peoples of all ages in Tennant Creek. Yarns with the Elders suggest that rather than facing severe food and nutrition insecurity, the experience of First Peoples in their community is more closely aligned with moderate food insecurity and hidden hunger stemming from poor dietary choices and substandard nutritional well-being (see Chapter 3).

The Tennant Creek Elders affirmed that the poor dietary habits of many First Peoples in their community are underpinned by a number of complex determinants. Convenience was overwhelmingly presented as the strongest determinant of food choice. All four of the Elders noted that community members are often more likely to purchase ready-to-eat convenience foods from any number of takeaway shops and stores, rather than to cook meals at home using fresh produce. As Dianne stated, “the food that they eat now is from the shops. It’s fast food, instead of them cooking their own for their children”. However, convenience not only emerged as undermining the ability of First Peoples in Tennant Creek to achieve food and nutrition security via the conventional food system. Dianne and Jakamarra asserted that convenience also detracts from the willingness of First Peoples to engage with the often-time-consuming task of procuring and preparing nutritionally rich bush foods. As Jakamarra explained, “you can just go to the takeaway and get it. Go to the store. Families hardly spend the weekend together out in the scrub. It just doesn’t happen anymore”. Brian mirrored Jakamarra’s claims, “they’ve got all the facilities there, they don't need to go and look round for bush tucker now”. The impact of convenience on the ability of remote Indigenous communities to achieve food and nutrition security thus appears two-pronged, encouraging both the overconsumption of nutritionally devoid foods, and detracting from the consumption of the nutritionally rich traditional foods of First Peoples.

Unlike convenience, economic access was not discussed by any of the four Elders as a driving factor in the food and nutrition security of First Peoples in the community. As Jakamarra noted, the combination of royalty payments paid to Indigenous households for resource extraction on their lands, combined with welfare payments and income stemming from employment means that "the family doesn't really miss out on the money". Instead, two of the four Elders highlighted that poor money management was a key determinant of food and nutrition insecurity amongst First Peoples in the Tennant Creek area. Brian denounced the lack of financial education that First Peoples have received, exclaiming, "they (First Peoples) don't know how to budget their money because Aboriginal people weren't educated with respect". In addition, he noted the widespread proliferation of drugs and alcohol within the community, and the impact of these social woes on the ability of some families and individuals to prioritise their finances for the purchase of sufficient and nutritious food. Valda similarly noted that Centrelink (government welfare) payments, which in the past were directly transferred to many Indigenous households, "just went on anything", often leaving children without adequate nutritious food. However, Valda credited the advent of the BasicsCard, an income management tool that can only be used in approved stores such as supermarkets for the purchase of approved goods, for assisting First Peoples in managing their money and prioritising the purchase of food.

Insufficient in-store availability only emerged as a determinant of the food and nutrition security experienced by First Peoples in Tennant Creek when yarning with Jakamarra. Jakamarra asserted that the 'Food Barn,' a term used by locals to refer to the lone IGA supermarket in Tennant Creek, not only serviced the needs of the 3,000 people living in the Tennant Creek area, but also those living in the Barkly region's remote communities, camps and outstations surrounding the township. Jakamarra estimated that in total, the Tennant Creek IGA ended up servicing "about 10-15,000 people". Jakamarra also noted that "townsfolk have to compete" with the influx of tourists visiting Tennant Creek from towns including Alice Springs and Mount Isa. As Jakamarra stated, the majority of tourists did not realise the reality of food shortage in very remote locations, and as such did not bring extra food on their travels. This additional layer of outside competition for food resources compounds the existing challenges that First Peoples in Tennant Creek face in their efforts to achieve food and nutrition security.

Adding to this network of complex determinants, Brian affirmed that the poor state of food security and nutritional well-being amongst First Peoples in Tennant Creek was worsened by a lack of nutrition literacy. In addition to underpinning the ability to budget money, Brian also noted the relationship between a lack of education and the food choices made by First Peoples in Tennant Creek. As Brian stated, "now we're asking about tucker - which food is wrong to eat and what food is right to eat. No education, [they say] 'black fulla don't need education, English is not their first language'". Brian's narrative not only highlights that First Peoples remain at a disadvantage within the conventional food system, where they lack the knowledge required to guide appropriate dietary decisions, but also illuminates the omnipresent impact of systemic discrimination on the ability of Aboriginal and Torres Strait Islander peoples to thrive under the store-bought food regime.

Importantly, Brian also emphasised the benefit of increased nutrition literacy amongst First Peoples. Brian shared a first-hand account of being hospitalised with pneumonia, in which he credited being taught how to cook his own healthy meals for his recovery. Brian's story serves as anecdotal evidence of the causal relationship between nutrition security and the wider health outcomes of First Peoples. Yet beyond his own health, Brian asserted that increased nutrition literacy, especially amongst the younger generation, could have a far-reaching impact on the nutritional well-being of the wider community.

> This lady used to come and help me to cook meals by myself. That's the sort of thing that should be happening as a starting point for younger kids to cook for their Elders. You educate a kid how to cook and they can cook their own meals, and then they might do meals on wheels for aged care - younger generation helps the next generation.

Brian noted that if equipped with sufficient nutritional knowledge of the conventional food system, Elders in the community could play a pivotal role in transmitting this nutrition literacy to younger generations for the future benefit of the community. As Brian affirmed, "that's what we are looking for, someone to teach us how to do things so we can teach other people, younger generations."

Whilst the Elders recognised the detrimental impact of store-bought discretionary and convenience food items on the well-being of First Peoples in Tennant Creek, they equally proclaimed the multifaceted benefits associated with the consumption of bush tucker, which will be outlined in the following section.

6.3.2 Bush Tucker: Benefits and Barriers

The enduring role of bush foods in the lives of First Peoples in Tennant Creek surfaced from the Elders' narratives as a topic shrouded in complexity. Whilst the Elders noted the detrimental impacts of overconsuming store-bought and discretionary foods, they were quick to highlight the benefits of consuming bush tucker. Brian differentiated between the nutritional benefit of consuming bush tucker with the damaging impact of food that "comes from the factory". Valda and Dianne's descriptions of bush foods also served in stark contrast to the perspectives they had shared regarding store-bought items on the health of their peoples. As Dianne explains, "we get ourselves healed by all this bush tucker, by all that stuff out there in the environment. That's how we live and look after ourselves". However, beyond the nutritional benefits associated with their traditional foods, both Dianne and Valda noted that the procurement, preparation and consumption of bush foods underpins the holistic conceptualisation of health shared by Aboriginal and Torres Strait Islander peoples. As Valda stated, "Women and men want to go out on Country. That's healing in itself, just being on Country and connecting back with everything around us". The narratives of Elders such as Valda highlight that the benefits of consuming bush tucker extend beyond the parameters of the conventional food and nutrition security framework and are important in maintaining and strengthening the spiritual well-being and cultural connectedness of First Peoples.

Despite highlighting the multidimensional health benefits of consuming, procuring and preparing bush foods, the four Elders revealed a number of constraints that limited First Peoples' access to their traditional resources in the Tennant Creek area. Three of the four Elders noted a lack of access to vehicles and fuel needed to transport community members to the areas beyond the township, where these foods could be sourced in abundance. As Brian commented, "in some areas it's okay, but the ones that are far away we have no access to". Even in instances where

transport and fuel were accessible, Brian noted the impact of the harsh terrain on vehicles and the lack of money available for vehicle maintenance, asking, “if I take my car out there, who’s going to fix all my wearing and tearing when I’m going out bush?” Furthermore, Jakamarra discussed the challenges posed by weapon registration, and noted that an ingrained fear of the judicial system worked to deter First Peoples from using unregistered firearms to hunt traditional game such as kangaroos.

> There are a lot of community guns out there. We know a lot of the community has firearms that aren't registered. But then someone has to get bullets. Someone registered has to get it (bullets), and if it comes back to them that they've been giving out bullets, you could go to court or serve jail time.

The narratives of Elders in Tennant Creek illustrate the impact of enduring structural barriers, namely economic disadvantage, on the ability and willingness of First Peoples to support their food and nutrition security by drawing upon traditional foods resources.

In addition to difficulties in accessing bush tucker, the Elders also asserted that First Peoples in their community are faced by the decreasing availability of their traditional food resources. Valda detailed the ever-changing availability of bush tucker on Country surrounding Tennant Creek:

> Everything was seasonal. Now one year we go without bush potatoes and then the other year we’ll have it, a couple of years we’ll go without it, go out on Country and see there's nothing out there. Where's our bush tucker when it’s supposed to be available at this time of the year.

Valda progressed to share the story of the *Lukarrara* (Desert Fringe Rush seed) *Jukurrpa* (Warlpiri word for Dreaming: see Chapter 2), which she is a Traditional Owner of. As Valda explained, the *Lukarrara* is the grass that gives off the seeds that her Elders would once regularly grind by hand to make the flour used in traditional bread. However, with much sorrow, Valda exclaimed that “These days it's not there, you can't find this plant. We can see that all the other bush tuckers seem to go the same way”. When queried about the changing health of their

Country and the dwindling stocks of bush tucker, three of the four Elders noted the impact of human-induced interventions such as tree felling and land clearing, but overwhelmingly focused on the impact of livestock and pastoralism. As Brian confirmed, "you got all the cattle going around making a big mess, destroying and abusing our land". Dianne shared a particularly heartfelt story, recalling the impact of cattle on the tract of Country she spent time living on as a young woman:

> There was nothing there because of the cattle and I felt really bad when I saw it. It made me think of the spirits of the people in that camp, and I was worried. I was thinking about 'I wish it was in the good old days.' I just had tears in my eyes when I was driving past. I still remember myself; it was my stomping ground.

The stories shared by Brian and Dianne underline the long-lasting effects of European agriculture and pastoralism on the ability of First Peoples to support their food and nutrition security via traditional avenues. As agricultural production continues to intensify to keep pace with a market-driven conventional food system, the availability of the traditional foods continues to dwindle. In contrast however, Jakamarra downplayed the role of livestock and pastoralism in depreciating the land, highlighting the positive impact of livestock manure on the region's soils. Instead, Jakamarra noted the impacts of bushfires and inconsistent rainfall, proving that ascriptions of blame for the deterioration of Country vary within Indigenous communities.

Despite the Elders' narratives concerning restricted access to bush tucker and shifts in the availability of traditional food resources within their community, three of the four participants stated that bush tucker continues to be procured and consumed regularly by those living outside of the town's boundaries. As Jakamarra declared, "out there it's abundant. They eat so much of that bush tucker, it's in town where we sort of lack getting that food". Such assertions suggest that some of the challenges described above, especially those relating to transport, predominantly impact First Peoples living within the township. As a woman living outside of the township on her homelands, Dianne testified to the enduring importance of bush foods within the efforts of some First Peoples in the community to achieve food and nutrition security. Dianne explained that she lived in a humpy (see Figure 6.3 below), a form of temporary dwelling that hybridises

traditional Indigenous architecture with contemporary Western architecture and materials (Gillespie, 2013).

Figure 6.3: Dianne Stoke's humpy (Source: Bardon, 2018).

As Dianne stated, "I live the way I used to live before, when I was young". Dianne described how she supplements a diet primarily consisting of bush tucker with basic supplies from the town's stores, only purchasing fresh meat and produce from the supermarket to cook at her humpy when the availability of bush tucker is low. As will become increasingly clear, the central function of bush foods in the lives of those living on the homelands and outstations surrounding the Tennant Creek township presents a strong platform from which to support food and nutrition security amongst the wider community. The following section explores shifts in the transmission of food-specific Indigenous knowledge within the Tennant Creek community.

6.3.3 Food-Specific Indigenous Knowledge Transmission: A Shifting Landscape

An additional noteworthy theme that emerged from the Elders' narratives was the significant shift in the transmission of food-specific intergenerational knowledge. All four participants shared rich and heartwarming narratives of growing up on Country eating bush tucker. Underpinning all but one of these narratives was the central theme of Indigenous knowledge transmission, as the participants reminisced about their Elders teaching them how to procure and prepare bush foods. As Dianne recounted:

> I was born out in the bush. When I got picked up by my Aunty, she kept me, she grew me up, and then she took me hunting. I grew up out bush. I'd never seen a station - up out bush all the time with my Aunty. She showed me how to cook bush tucker in the ground, she showed me how to hunt for bush tucker, she showed me how to dig for water in the ground.

Valda shared a similar story:

> We lived more on bush tucker because it was fresh and available. At that time, we didn't have cars, so I used to follow my dad a lot hunting. Used to go down walk out bush and get the goannas and get the bush tucker and whatever else was in season. I'd always follow my dad.

Stories shared by Dianne and Valda reassert that the retention of Indigenous knowledge amongst Elders and their subsequent ability to transmit this knowledge to younger generations is critical in the efforts of First Peoples to support their food and nutrition security by drawing upon bush foods. However, mirroring the multi-faceted benefits stemming from the increased production and consumption of bush foods, opportunities for transmitting Indigenous knowledge were also found to maintain and strengthen cultural ties amongst First Peoples in Tennant Creek.
As Valda exclaimed:

> I got my education from different campfires with different old people from the different language groups. I'm saying that more so to other Aboriginal people that always challenge

me. I say, ‘you only got the white fella’s point of view, you tell me where you get your Aboriginal point of view from.’ We gotta be true to us, we gotta be true to our ancestors.

Yet, in speaking further with the Elders, it became clear that this type of knowledge transmission is dwindling in Tennant Creek. As Brian explained, opportunities to transmit this knowledge were contingent on opportunities to hunt, harvest and gather on Country. As such, Brian differentiated between opportunities for learning presented to First Peoples living in Tennant Creek town, versus those who live on the surrounding homelands stating, “it’s only people outside of Tennant Creek that learn, because they're living out in the community. But people that live in Tennant Creek, none of them go out”. Dianne stressed the diminishing impact of dominant Western society on the ability and willingness of Elders to transmit food-specific Indigenous knowledge to youth in the community. As Dianne stated, “the Elders never ever talk about this stuff anymore because they live in a society where they want to live like a white person”. Jakamarra similarly noted the diminishing number of Elders who possessed the expert knowledge to transmit to younger generations, as well as the dearth of community programmes that facilitate such opportunities and the lack of emphasis placed on teaching Aboriginal and Torres Strait Islander youth about their culture in Australia’s mainstream education system.

Despite these barriers, three of the four participants equally asserted that some Elders in the Tennant Creek area remained interested in transmitting knowledge of Country and bush tucker to younger generations. Yet, Valda contended that the amount of contemporary distraction facing Aboriginal and Torres Strait Islander youth in her community meant that many were not present nor interested when the opportunity for learning from their Elders presented itself. As Valda declared, “the older ones want to [teach the youth], but they find these younger ones aren't even there, so how can we make it happen?” Valda highlighted that the absence of youth could be explained in-part by high levels of incarceration, which alienated young people from their culture and Country. The narratives of Elders underscore the enduring impact of cultural disenfranchisement within post-colonial Australia on the ability and willingness of First Peoples to draw upon and transmit food-specific Indigenous knowledge.

However, Dianne did present a strong example of putting the aspirations of other Elders in the community into action, and refuted claims that youth were losing interest in learning about bush tucker:

> I'm an Aboriginal woman, and I really want to sit in the bush, still have that culture, still have that respect for my tribe. I wanna show my young ones and my grandchildren. I still do that. I sit down and draw on the ground and tell them all the stories, make a circle round it, and [tell them] 'if you wanna be in that circle then this is what you do, this is our culture, this is our belief from the ancestors.' And my grandchildren, they like it out where I live. [They say] 'Nana we want to come out there and camp with you, we don't want to be in town, too many cars'.

Dianne then went on to explain how earlier that day she had driven by a bunch of *Ngurtila* (Warumungu language for bush beans) (see Figure 6.4 below), telling her daughters:

> Grab the kids, take them out and show them what these beans are. Get a bundle of spinifex and light it up, chuck your beans in there. Tell the kids to turn it round with sticks until the fire goes right down, until the grass burns. Then you can put it out, get the kids to make it cool and peel it, get the fruit inside.

Figure 6.4: *Ngurtila* (bush beans) (Source: .

Dianne's personal crusade to ensure that this culturally significant knowledge is passed down to her children and grandchildren, reflects that despite a number of barriers, food-specific Indigenous knowledge holds great cultural significance in the lives of many of those living predominantly traditional lifestyles on the homelands surrounding Tennant Creek. The following section explores the steadfast ties that remain between Elders like Dianne and the traditional ways of knowing and being of her peoples further. These ties present significant opportunities to support the wider community's food and nutrition security, opportunities recognised by many First Peoples in Tennant Creek.

6.3.4 A Land of Opportunity: The Potential for Bush Tucker and Indigenous Knowledge to Support Food and Nutrition Security Amongst First Peoples in Tennant Creek

Yarns with Elders not only revealed that the hunting, gathering and harvesting of bush foods in the Tennant Creek area continues to occur, albeit predominantly by those residing on the homelands surrounding the township. The Elders also recognised that these practices represent an opportunity to support the food security, nutritional well-being and holistic health of First Peoples in the community. Jakamarra explained that those living on the homelands and settlements surrounding Tennant Creek continue to hunt bush foods like kangaroo and turkeys, bringing them into town to barter with townsfolk in return for goods that were less available outside the township. Jakamarra expressed the potential of upscaling this operation with the cooperation of stores and the IGA supermarket, stating, "I think there is an opportunity for that. Gathering all that food and bringing it in, selling it at the supermarket". He noted the success of a similar operation in the caravan parks surrounding Tennant Creek, where individual stores sold kangaroo tails that consistently "sell out". Jakamarra's narrative signals that if made more readily accessible, bush foods could once again form a central component of the present-day diet for First Peoples in the township of Tennant Creek.

Valda similarly asserted that utilising the existing knowledge and skills of First Peoples living on the homelands surrounding Tennant Creek presented a significant opportunity to support the food and nutrition security of the wider community. As Valda declared,

> I've been having this kind of discussion for years, amongst my family and with people on the homelands. Go back on Country and grow bush tucker and bush medicine - bring it into our diet, into our everyday lives. It's our people helping our people.

Valda underscored the multi-dimensional benefits of community-led bush tucker production, stating that this type of enterprise could not only support the food and nutrition security of townsfolk, but would provide employment opportunities for the large number of unemployed Aboriginal and Torres Strait Islander peoples in the area. Perhaps more importantly, Valda proclaimed that maximising these opportunities was an important means of strengthening cultural connection and providing spiritual healing for her people. As Valda asserted, "some of these people don't even know where their connections are. Providing them with this kind of way forward is that healing of the spiritual side for our people". In addition, Valda noted an opportunity for community-led bush food production to act as a means of rehabilitation for young offenders. As Valda described, "instead of sending them off to a white man's institution, why don't we send them to Country for their rehabilitation, for them to learn the culture that they should be living by and putting into practice".

Dianne similarly spoke about the unlocked potential of the Julalikari Council nursery to grow bush tucker, and her personal crusade to get this operation underway. In discussing *Lukarrara* (see Section 6.3.2), Dianne proclaimed that she had recently procured the seeds of this grass and planted them at the nursery in hopes that they would grow. As Dianne exclaimed, "we're going back to nature, we're going back to the times when our parents took us out to get some of this stuff". Dianne shared that her ultimate hope was to transition from experimenting with growing traditional staple foods in the nursery, to planting large patches of bush tucker. Dianne hoped that community members could eventually "walk in with the kids and grab some". Whilst such aspirations perhaps appear oversimplified at first glance, Jakamarra provided a compelling anecdote in describing a similar community-led project in Ali Curung, a small settlement roughly 170 kilometres south of Tennant Creek (formerly the Warrabi settlement - see Section 6.2). As Jakamarra explained, when community members in Ali Curung began to water the non-traditional vegetables they had planted, bush potatoes unintentionally began to sprout from the

ground. Jakamarra credited the “nice red soil” found in the Northern Territory, where “anything can grow”.

Jakamarra mentioned that a similar community-led garden project had, until recently, flourished for eight years in Tennant Creek with the support of the Red Cross, where community members could make a small donation and take a bag of fresh vegetables home. Beyond supplying fresh produce at an affordable price to the community, through partnership with joint ventures such as RISE-Ngurratjuta, the garden provided significant work opportunities for First Peoples on government welfare, under the federal government’s Community Development Program (CDP). However, Jakamarra noted that he had seen a significant decline in the garden since the Red Cross had relinquished control. He agreed though, that integrating bush foods into the community garden as part of a hybridised system of traditional and non-traditional foods, could reignite community ownership and a sense of pride amongst First Peoples.

The Elders recognised that safeguarding and increasing the transmission of food-specific Indigenous knowledge was crucial if the community hoped to turn these aspirations into a reality. As such, three of the four Elders also shared their aspirations of reigniting food-specific Indigenous knowledge transmission within their community, some of which were already in early stages of development. In discussing his role for the Red Cross, Jakamarra noted that the organisation had recently acquired a new four-wheel-drive vehicle to take youth out on Country to learn about and source bush tucker with the expert assistance of a soon-to-be-hired female Elder. Similarly, Dianne explained that she had set up a “grandmothers and young mothers’ group” that was due to commence the following month, in which female Elders take young mothers out on Country to teach them how to collect and cook traditional foods. “We’re gonna be taking them out bush, camping. Go out there collect some bush tucker, collect some bush medicines. We’re gonna sit down and let the young mothers do it, the grandmothers will have to teach them”.

Taken in totality, the corresponding aspirations of Jakamarra, Valda and Dianne indicate a strong recognition amongst First Peoples in Tennant Creek that traditional foods and food-specific Indigenous knowledge can work to support food and nutrition security within the community.

However, beyond the parameters of food and nutrition security and seemingly of equal importance for the Elders, is the potential of these community-led efforts to drive wider social, cultural and economic development amongst the Indigenous community of Tennant Creek. As the following section unpacks, despite holding great potential, turning these opportunities and aspirations into reality often requires external support, collaboration and the meaningful valuation of Indigenous voice.

6.3.5 Next Steps: The Need for Increased Support, Collaboration and a Meaningful Space for Indigenous Voice in Food and Nutrition Related Interventions

Two of the Elders asserted that external support and collaboration was required to maximise and develop current community-led efforts aimed at reinvigorating the role of the traditional food system within the lives of First Peoples. In explaining the opportunity to upscale bush tucker production on the homelands surrounding Tennant Creek, Valda affirmed that whilst the operation would be Indigenous-led, it would require "support from other people on the outside, non-Indigenous people that come and work with us and help us produce these things". Jakamarra mentioned the particular need for increased funding and resourcing from government and outside organisations to assist First Peoples in hurdling some of the structural barriers that currently inhibit community-led bush food ventures. As Jakamarra highlighted, "funding wise, we just don't have that type of money to go and set up a garden or something like that. It can be done but we just haven't found someone to donate that infrastructure".

Furthermore, all four Elders reached consensus on the lack of meaningful collaboration and partnership between First Peoples in their community with government and other outside parties. As both Jakamarra and Valda asserted, this dearth of community consultation and collaboration was not isolated in regard to food and nutrition security interventions but was also indicative of the political landscape. As Jakamarra contended, "we've got a big deal up here in the Territory, in the Barkly Region. It's not really working because we're not hearing the Aboriginal voice, it just comes out of government". Brian offered a similar compelling narrative:

> The people who had that authority to work under these Aboriginal organisations did not consult with the people in the community. People who can go and sit and talk to people in the community were all based under the air conditioning of Julalikari Aboriginal Corporation. They didn't want to leave the air conditioning.

Such revelations perhaps uncloak why the opportunities widely recognised by First Peoples to reinvigorate the role of bush tucker and Indigenous knowledge in their everyday lives have not yet come into fruition. Ultimately, the aspirations of Indigenous communities are only one piece in a convoluted puzzle. This puzzle often requires the support and collaboration of external parties, and the valuation of Indigenous voice in interventions designed to improve food and nutrition security within these communities. The recognition of Indigenous knowledge and bush tucker as possible support mechanisms for improving food and nutrition security in remote Indigenous communities amongst government bodies, non-Indigenous organisations and Indigenous organisations will be analysed in more depth in the following chapter.

6.4 Conclusion

Yarns with four Elders from the remote Tennant Creek community unearthed a deluge of insights and information pertinent to this research. Currently, the poor state of food security and nutritional well-being amongst First Peoples in Tennant Creek is underpinned by a variety of complex determinants. These include store-bought convenience and the proliferation of convenience foods, poor money-management skills, inadequate in-store availability of nutritious food, and deficient nutrition literacy pertaining to the presiding conventional food system. First Peoples in Tennant Creek do however continue to recognise the benefits associated with procuring and consuming bush foods. Beyond recognising the nutritional superiority of bush foods compared to many store-bought foods, First Peoples in the Tennant Creek area affirm that the increased production and consumption of these traditional resources underpins the spiritual well-being, cultural connectedness and holistic health of the community. Yet, First Peoples, especially those living within the township, remain hampered by access issues to bush tucker, stemming from a lack of transportation, fuel and money needed for vehicle maintenance. Similarly, the registering and licensing of the firearms needed to hunt traditional game presents

an additional barrier, especially with the ever-present fear of incarceration lingering. Furthermore, the availability of bush foods has dwindled concurrently with the health of Country, largely due to the intensification of agriculture and pastoralism, and the onset of imprudent land management strategies.

Yarning with the Elders also revealed shifts in the transmission of food-specific Indigenous knowledge from older to younger generations of First Peoples in the community. The participants recounted growing up on Country in the footsteps of their Elders learning how to procure and prepare bush foods. Yet, they cited a number of barriers that inhibited the continuation of this practice. These challenges included the contemporary distractions facing Indigenous youth, high levels of youth incarceration and the proliferation of a Western existence that had alienated some Elders from their own culture. Despite these challenges, the participants asserted that their community wanted to safeguard and increase the transmission of this unique knowledge to younger generations, sharing stories of their own personal crusades to ensure the retention of this traditional knowledge.

Importantly, what became clear in yarning with the Elders, was a clear aspiration to reinvigorate the role of bush tucker and food-specific Indigenous knowledge in the everyday lives of First Peoples in the community. The Elders expressed multiple opportunities for upscaling or modifying existing or envisioned community-driven operations involving bush tucker and Indigenous knowledge transmission. Some of these opportunities included utilising the skills and knowledge of First Peoples on the homelands surrounding the township to upscale the production and procurement of bush foods, integrating traditional staples into community gardens, and running programmes where youth and young mothers were taken out on Country to learn about bush tucker from expert Elders. For the Elders, grasping these opportunities not only represented an avenue for supporting the food and nutrition security of First Peoples within their community. They similarly represented a means of affecting wider social, cultural and economic development within the community, providing ancillary outcomes such as increased Indigenous employment opportunities, culturally significant rehabilitation pathways for young offenders, and a general sense of direction for the disempowered and disenfranchised. However, what also emerged in yarning to the Elders, was the underlying lack of support and collaboration from

government bodies and non-Indigenous organisations, and the subsequent dearth of Indigenous perspectives within interventions aimed at improving food and nutrition security within these communities. Without the support of non-Indigenous institutions within Australia, turning the aspirations of Indigenous communities into reality remains inherently challenged.

Chapter Seven: The Federal Government Inquiry into Food Security and Food Pricing in Remote Australian Communities

7.1 Introduction

The following chapter presents findings derived from an analysis of twenty documents submitted as part of a recent inquiry ordered by the Australia's federal government into food security and food pricing in remote communities (Parliament of Australia [APH], 2020a; APH, 2020b). The analysis interrogates to what extent recent Australian government-led policies, programmes and inquiries acknowledge the potential of bush tucker and Indigenous knowledge to support food and nutrition security, in response to *Objective 3.3.* which seeks to understand whethSimilarly, the document analysis explores whether, and to what extent, Indigenous communities continue to recognise the potential of bush tucker and Indigenous knowledge to support their food and nutrition security, as outlined in *Objective 3.4*. The document analysis focuses on two themes: the acknowledgement of the potential of bush foods to support food and nutrition security within remote Indigenous communities, and the acknowledgement of the potential of Indigenous knowledge to support food and nutrition security within remote Indigenous communities. The links between these analysis themes and the specific research questions and objectives can be found in Table 5.1, in Chapter 5. Before the documents are analysed, this chapter will provide an overview of recent government-led policies and programmes aimed at improving food security and nutritional well-being in remote Indigenous communities. In exploring interventions spanning the last two decades, a broader scene will be set, within which the most recent inquiry will be contextualised. The document selection and grouping process will then be explained, before the thematic findings are presented.

7.2 Improving Food and Nutrition Security in Remote Indigenous Communities: An Overview of Recent Government-Led Policy and Programmes

Since the year 2000, initiatives to improve food and nutrition security amongst Aboriginal and Torres Strait Islander peoples have emanated from all three tiers of the Australian government (Davy, 2016). Whilst government-led programmes and policies have achieved a number of optimistic outcomes, they have not escaped their share of criticisms, which appear justified given the state of food and nutrition security that persists within Indigenous communities (Australian National Audit Office [ANAO], 2014; Davy, 2016; Hudson, 2010). Between 2000-2010 the federal government's *National Aboriginal and Torres Strait Islander Peoples in Australia Nutrition Strategy and Action Plan* (NATSINSAP) was enacted in an attempt to improve nutritional well-being amongst First Peoples. NATSINSAP stressed the contribution of poor nutrition to the prevalence of chronic disease and reduced life expectancy within Indigenous communities (Browne et al., 2014). NATSINSAP focused on seven pivotal areas, including food supply in remote communities, socioeconomic status and household infrastructure (Davy, 2016). However, as Hudson (2010) asserts, the success of NATSINSAP was significantly hampered by a lack of ongoing funding, the majority of which was directed towards healthy eating social marketing campaigns such as *Measure Up*. According to Hudson (2010), campaigns like *Measure Up* failed to address the underlying factors that impact the nutritional choices of First Peoples, instead assuming that the dietary habits of First Peoples were "because they do not know any better" (Hudson, 2010, p. 6). Whilst an official evaluation of NATSINSAP was completed in 2010, these findings were never made available to the public. To date, NATSINSAP remains the first and only national strategy primarily focused on the nutrition of Aboriginal and Torres Strait Islander peoples (Browne et al., 2014).

Another major initiative was the establishment of Outback Stores in 2006. Outback Stores is a government-owned organisation aimed at assisting remote community stores to circumvent managerial factors including financial mismanagement, which undercut the ability of remote communities to achieve food and nutrition security via the store-bought system (Davy, 2016)

(see Chapter 4). Under the scheme, whilst community stores continue to be owned by the community, community leaders must sign "a long-term (usually more than five years) management agreement with Outback Stores on a fee-for-service basis" (Hudson, 2010, p. 12). Outback Stores currently manage 41 stores across the Northern Territory, Western Australia and South Australia (Outback Stores, 2020, p. 6). Hudson (2010) provides a concentrated critique on the Outback Stores organisation, asserting that government involvement and funding has allowed Outback Stores to monopolise food distribution in remote communities, creating an "unequal playing field" (p. 1). Hudson argues that this has made it less economically attractive for independent community stores to operate, or for community members to pursue alternative forms of food production. Like NATSINSAP, Hudson describes Outback Stores as a "bandaid solution" (p. 18), which fails to address structural hurdles facing remote Indigenous communities. Hudson asserts that only when impediments such as inaccessible transport routes are addressed, can food security and nutritional well-being in remote Indigenous communities be improved via a market economy where true competition is present. In 2009, the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs released its report *Everybody's Business: Remote Aboriginal and Torres Strait Community Stores*, which offered 33 recommendations to Kevin Rudd's government that were aimed at improving remote stores, food supply, affordability, transport and sector regulation (Davy, 2016). However, according to Hudson (2010), the Rudd government did little to act on these recommendations.

An additional government-led effort was the 2009 *National Strategy for Food Security in Remote Indigenous Communities* (Ferguson et al., 2018). The strategy was linked to the targets of the Closing the Gap campaign (see Chapter 1) and aimed at ensuring a secure food supply to remote communities and increasing the consumption of healthy foods (ANAO, 2014). Despite the COAG describing the strategy as 'national', it was in-fact only applied to the Northern Territory, Western Australia, Queensland and South Australia, leaving Indigenous communities in Victoria, New South Wales and Tasmania outside of this 'national' framework (Browne et al., 2014). Furthermore, an audit conducted by the Australian National Audit Office (ANAO) in 2014 concluded that there was minimal change in remote food security as a result of the strategy. Despite a mid-2010 timeframe for the completion of the strategy's five key strategic areas, only one key area was achieved. Much like theNATSINSAP, the audit concluded that the strategy

lacked ongoing funding and support from the states and territories involved. The audit found the majority of attention was directed at developing the strategy in the required timeframe as requested by the COAG, rather than considering the attainability of key outcomes or implementing actions related to these outcomes (ANAO, 2014).

The expiry of the National Strategy for Food Security in Remote Indigenous communities in 2012, marked the last coordinated national attempt by the Australian government to improve food and nutrition security in remote Indigenous communities (Browne et al., 2014). Since then, government-led efforts have largely been focused on the Northern Territory, with the renewal of the Community Stores Licensing Scheme that was first introduced as part of the *Northern Territory Emergency Response* in 2007. The scheme, a regulatory approach aimed at strengthening the capacity of community stores to supply ample nutritious food in remote communities, was renewed for ten years in 2012 under the *Stronger Futures in the Northern Territory Act*. Under the Act, community stores are required to "meet acceptable standards in relation to the range, quantity and quality of goods offered for sale" (ANAO, 2014, p. 31). Findings from the 2014 ANAO audit showed that as of July 2014, 97 out of an anticipated 110 stores in the Northern Territory had been licensed predominantly in line with the stipulations of the *Stronger Futures in the Northern Territory Act* (p. 14). The ANAO reported that store operators felt the scheme has positively impacted operations, and that the scheme was "likely to be achieving food security outcomes" (p. 66) despite there being limited performance-related information to make such assessments.

Beyond failing to address the various structural inequalities that hinder First Peoples from succeeding within the conventional market-based food system, these government-led initiatives possess an inherent lack of community engagement alongside a dearth of Aboriginal and Torres Strait Islander participation in decision-making processes (Davy, 2016; Hudson, 2010). As Davy (2016) comments, schemes such as Outback Stores are "yet another example of the federal government doing something *for* ATSI [Aboriginal and Torres Strait Islander] communities, instead of *with* them" (p. 215). Lost within this bureaucratic and fractured approach fixated on achieving change through a food system in which remote Indigenous communities remain severely disadvantaged, are the valuable perspectives of First Peoples and any meaningful

recognition of Indigenous ways of knowing and being. The following section will provide a specific context for this document analysis, which proves that many of the challenges and shortcomings associated with recent government-led efforts to improve food and nutrition security within remote Indigenous communities fail to cease.

7.3 Contextualising the Document Analysis

On 21 May 2020, the Minister of Indigenous Australians, the Hon. Ken Wyatt, requested that the House Standing Committee on Indigenous Affairs conduct an inquiry and report on food pricing and food security within these communities (APH, 2020a; APH, 2020b). Of particular pertinence to the inquiry was the "availability and pricing of fresh and healthy foods in remote community stores" (APH, 2020b, para. 3). However, the Committee was requested to report and make recommendations on nine key terms of reference (TOR), including:

1. The environment in which Remote Community retailers operate;
2. The licensing and regulation requirements and administration of Remote Community stores;
3. The governance arrangements for Remote Community stores;
4. Comparative pricing in other non-Indigenous remote communities and regional centres;
5. Barriers facing residents in Remote Communities from having reliable access to affordable fresh and healthy food, groceries and other essential supplies;
6. The availability and demand for locally produced food in Remote Communities;
7. The role of Australia's food and grocery manufacturers and suppliers in ensuring adequate supply to Remote Communities, including:
    a. identifying pathways towards greater cooperation in the sector to improve supply;
    b. the volume of production needed for Remote Communities;
    c. challenges presented by the wet season in Northern Australia as well as any locational disadvantages and transport infrastructure issues that might be relevant;

    d. geographic distance from major centres;
8. The effectiveness of federal, state and territory consumer protection laws and regulators in:
    a. supporting affordable food prices in Remote Communities particularly for essential fresh and healthy foods;
    b. addressing instances of price gouging in Remote Communities; and
    c. providing oversight and avenues for redress;
9. Any other relevant factors (APH, 2020b; para. 6).

Taken in isolation, the nine TORs alongside the inquiry's focus on food pricing in community stores, signals that the most recent government-led mediations are embroiled in deficiencies. TOR2 and TOR3 for example, seemingly indicate that remote community stores remain hampered by governance and administration issues, despite initiatives such as Outback Stores being tailored specifically to address these problems. TOR7 and TOR8 in particular, also demonstrate that the federal government's chief concern remains improving the operation, regulation and administration of the conventional food system, with a focus on the market economy, retail environments, pricing and mass-manufactured food resources. Much like the aforementioned government-led policies and programmes, the TORs leave little room for those making submissions to meaningfully discuss the potentially powerful contribution of Indigenous knowledge and the use of bush tucker in overarching efforts to support food and nutrition security. However, TOR 6: *the availability and demand for locally produced food in Remote Communities,* does provide a major avenue for respondents to acknowledge these potentials. The following section outlines the process utilised in selecting and grouping the twenty documents under scrutiny.

7.4 Document Selection and Author Groupings

In conducting their inquiry, the Committee welcomed submissions that addressed any or all of the key TORs. At the time of this document analysis (8 August 2020), 106 submissions were available for download on the Parliament of Australia's website (APH, 2020b). Of these submissions, 20 have been selected for this document analysis. Submissions that either failed to address any of the nine key TORs, or which did not provide any recommendations to the Committee were not considered for analysis. Submissions under five pages in length were similarly not considered. After an overview of the remaining documents that met these criteria, three key groups of authors or respondents were decided upon. These groups were intended to represent perspectives and practical functions (O'Leary, 2017) that are important in the ability of remote Indigenous communities to achieve food and nutrition security. It was important that the groups evenly represented Indigenous and non-Indigenous ways of knowing and being. Documents were then selected based on their overall congruency to these groups. This criterion was used to whittle down submissions whilst attempting to ensure the credibility and quality of selected documents, and in efforts to avoid researcher bias during the selection process (O'Leary, 2017). The key author groupings (italicised) include:

1. *Aboriginal corporations, councils and alliances* (10 documents selected)
2. *State, territory and regional government bodies* (5 documents selected)
3. *Non-Indigenous owned, food and nutrition related service providers and non-profit organisations* (5 documents selected)

The specific authors within each key grouping are displayed in Table 6.1 below.

Category	Author(s)	Reference
Aboriginal corporations, councils and alliances	Aboriginal Health Council of Western Australia (AHCWA)	AHCWA. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 92).
	Aboriginal Peak Organisations Northern Territory (APO NT)	APO NT. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 60).
	Apunipima Cape York Health Council (Apunipima)	Apunipima. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 87).
	Arnhem Land Progress Aboriginal Corporation (ALPA)	ALPA. (2020). *Inquiry into food pricing and food security in remote Indigeneous communities* (Submission No. 106).
	Bawinanga Aboriginal Corporation (BAC)	BAC. (2020). *Submission to the inquiry into food pricing and food security in remote Indigenous communities - Parliament of Australia* (Submission No. 24).
	Miwatj Health Aboriginal Corporation (Miwatj)	Miwatj. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 91).
	New South Wales Aboriginal Land Council (NSW ALC)	NSW ALC. (2020). *Submission to the House of Representatives Standing Committee on Indigenous Affairs inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 14).
	Queensland Aboriginal and Islander Health Council (QAIHC)	QAIHC. (2020). *QAIHC Submission to the House of Representatives Standing Committee on Indigenous Affairs inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 89).
	Tangentyere Council	Tangentyere Council. (2020). *Senate Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 26).
	Wirrimanu Aboriginal Corporation (WAC)	

		WAC. (2020). *For House of Representatives Indigenous Affairs Committee inquiry into food prices and food security in remote Indigenous communities* (Submission No. 66).
Non-Indigenous owned service providers and non-profit organisations	Community Enterprise Queensland	CEQ. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 19).
	Foodbank Western Australia	Foodbank Western Australia. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 96).
	Food Ladder	Food Ladder. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 25).
	Outback Stores	Outback Stores. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 85).
	Sea Swift	Sea Swift. (2020). *Submission - Parliamentary Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 68).
State, territory and regional government bodies	Health and Wellbeing Queensland	Health and Wellbeing Queensland. (2020). *Federal Inquiry: Food prices and food security in remote First Nations communities* (Submission No. 54).
	Aboriginal Affairs New South Wales (Aboriginal Affairs NSW)	Aboriginal Affairs NSW. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 58).
	Northern Territory Government (NT Government)	NT Government. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 52).
	Torres Strait Regional Authority (TSRA)	TSRA. (2020). *Inquiry into food prices and food security in remote Indigenous communities* (Submission No. 53).
	Western Australian Government	Western Australian Government. (2020). *Inquiry into food pricing and food security in remote Indigenous communities* (Submission No. 110).

Table 7.1: Document analysis key author groupings (Source: Author).

With the context of the document analysis set, and the document selection and grouping process explained, the following sections will outline the findings of this analysis.

7.5 An Analysis of the Inquiry Submissions

The following sections analyse two distinct yet interconnected themes within the selected documents. The first of the two themes focuses on the acknowledgement of the potential of bush tucker to support food and nutrition security within remote Indigenous communities. 'Bush tucker' was selected as the key search term as it represents terminology commonly used within Indigenous communities. However, 'traditional food/s' and 'bush food/s' were also chosen as terms used synonymously by Aboriginal and Torres Strait Islander peoples. The second theme of analysis focuses on the acknowledgement of the potential of Indigenous knowledge to support food and nutrition security within remote Indigenous communities. 'Indigenous knowledge' was selected as the key search term as it is employed primarily throughout this thesis. However, given the contested nature of the term 'Indigenous knowledge', six synonymous terms that appear widely throughout the literature were selected, including: 'traditional knowledge', 'local knowledge', 'cultural knowledge', 'expert knowledge', 'intergenerational knowledge' and 'Aboriginal and Torres Strait Islander knowledge.

7.5.1 Theme One: Acknowledging the Potential of Bush Tucker to Support Food and Nutrition Security Within Remote Indigenous Communities

'Bush tucker' and the two synonymous terms occurred a total of 83 times across nine of the ten chosen submissions authored by *Aboriginal corporations, councils and alliances.* Submissions authored by AHCWA (2020, p. 9-10), Apunipima (2020, p. 2), Miwatj (2020, p. 8) and QAIHC (2020, p. 6) describe the extensive impact of colonialism on the ability and willingness of Indigenous communities' to access bush tucker, highlighting the rampant dispossession of land, the onset of European pastoralism and the debilitating effect of ration dependency. Despite these underlying challenges, ALPA (2020) note that bush foods remain important in the current diets of First Peoples, with many community members continuing to engage in traditional harvesting and hunting practices (p. 29-30). In their submission, Miwatj (2020) acknowledge that community members would "like to eat more bush foods" (p. 8). Similarly, AHCWA (2020, p. 9), QAIHC (2020, p. 12), BAC (2020, p. 5) and Apunipima (2020, p. 17) underline the pivotal role that bush foods play in maintaining not only the physical health and nutritional-wellbeing of

First Peoples, but also spiritual and emotional health within Indigenous communities. As part of these four submissions, the authors highlight that access to bush tucker facilitates and strengthens connection between First Peoples and their Country, traditional values, and culture. Both QAIHC (2020, p. 13) and Apunipima (2020, p. 17) highlight the important role of bush tucker as an ongoing safety net in Indigenous communities' efforts to achieve food security and nutritional well-being.

The role of bush tucker within Indigenous communities' efforts to achieve food and nutrition security is further highlighted by BAC (2020), who detail their ongoing support for local bush tucker enterprise Maningrida Wild Foods, where traditional foods are harvested and made available for their community at an affordable price (p. 3-6). However, BAC also state that ventures like Maningrida Wild Foods are challenged by the lack of infrastructure in remote communities, an inability to meet commercial food safety standards, and by a labyrinth of administrative constraints when seeking support from the Community Development Program (p. 6-7). The submission made by BAC provides anecdotal evidence that First Peoples are not only inhibited by structural factors in attaining food and nutrition security via the conventional food system, but also in their efforts to achieve food and nutrition security through alternative, grassroots avenues such as the expansion of bush food ventures.

The clear recognition amongst *Aboriginal corporations, councils and alliances* that bush foods hold great potential to support food and nutrition security within remote Indigenous communities is similarly reflected across the plethora of recommendations within these submissions. Among the recommendations is an overwhelming call to Australian Governments at federal, state and territory level to support First Peoples in "their ability to continue to access traditional foods" (QAIHC, 2020, p. 13). A number of the ten submissions recommend an increase in funding and the ongoing provision of resources, support and partnerships for local programmes and initiatives aimed at producing, harvesting and facilitating access to bush tucker within remote Indigenous communities (Apunipima, 2020, p. 17; BAC, 2020, p. 7; Miwatj, 2020, p. 8; NSW ALC, 2020, p. 1; Tangentyere Council, 2020, p. 4; QAIHC, 2020, p. 13). ALPA (2020) Deputy-Chairman, Mickey Wunungmurra, suggests that remote communities should focus on "cultivating traditional foods that thrive" in their Country, explaining that a pivotal shortcoming of

community garden programmes has been their attempt to grow produce not native to the region, that can be purchased "cheaper than they could be grown or harvested" (p. 29). As a land council, NSW ALC (2020) go one step further by recognising the innate ties between access to traditional land and access to bush food, and thus call for governments to support "access to traditional foods by returning land to Aboriginal peoples and recognising customary rights" (p. 1). Whilst these recommendations further elucidate that remote Indigenous communities recognise and value the potentials offered by bush tucker in efforts to improve their food security and nutritional well-being, they simultaneously demonstrate that maximising this opportunity is often contingent on the willingness of Australian governments to facilitate and support locally led efforts.

In stark contrast, the key term 'bush tucker' and the two synonymous terms occurred just four times across the five submissions selected from those authored by *state, territory and regional government bodies.* Any discussion of bush food was omitted from submissions produced by the WA Government (2020), the NT Government (2020) and the TSRA (2020). Despite being produced by Aboriginal Affairs NSW (2020), the document submitted on behalf of the NSW Government mentioned 'traditional food' just once (p. 9). Similarly, Health and Wellbeing Queensland (2020) provide one sentence that flagrantly understates the colonial 'influence' on the availability and ability of First Peoples to access bush tucker (p. 12). Whilst the submission also notes an opportunity for Elder groups to increase community education regarding bush foods (p. 15), it fails to draw any substantial link between an increase in the transmission of food-specific Indigenous knowledge and the possibility of improving food security and nutritional well-being within these communities.

Similarly, any impetus placed on the potential of bush tucker to support food security and nutritional well-being within remote Indigenous communities proved scarce across the five selected submissions authored by *non-Indigenous owned service providers and non-profit organisations*. Of these five submissions, the search terms only appeared in the document produced by Food Ladder (2020). The theme was prominent within Food Ladder's submission, with the search terms appearing a total of ten times, perhaps given the non-profit organisation's mission to empower "communities to own and drive" (p. 3) community-based food infrastructure

through a model of social enterprise. Food Ladder (2020) thus cite experience and knowledge gained through their various programmes, in asserting to the Committee the "cultural importance and genetic benefit" of traditional foods. Furthermore, Food Ladder describes the willingness of Indigenous communities to increase their consumption of nutritionally dense fresh foods, when bush tucker is integrated as part of this offering (p. 12). As part of their recommendations, Food Ladder advocates for ongoing efforts to integrate bush foods into similar social enterprise programmes (p. 4). Additionally, the document discusses opportunities for partnership between Indigenous communities and external organisations to produce traditional foods at a commercial level in efforts to ensure consistent food supply, and to create "ancillary income streams for communities" (p. 17). In contrast, the search terms were omitted from the submissions prepared by both CEQ (2020) and Outback Stores (2020), despite their pivotal role as two frontline organisations responsible for food provisioning and affordability in many remote Indigenous communities across Australia. Although the efforts of CEQ and Outback Stores are focused on improving remote food security and nutritional well-being via the conventional food system and market economy, their widespread claims of concentrated community engagement and support for First Peoples perhaps clouds these omissions in some contention. The focus of the following section shifts to analysing the second of the two themes.

7.5.2 Theme Two: Acknowledging the Potential of Indigenous Knowledge to Support Food and Nutrition Security Within Remote Indigenous Communities

Compared to 'bush tucker' and the two synonymous search terms, the search term 'Indigenous knowledge' and the six synonymous terms occurred far less frequently within the ten selected documents authored by *Aboriginal corporations, councils and alliances.* These terms occurred just eight times and were only found within five of the ten documents. In all instances, the terms appeared alongside the discussion of bush foods, further cementing the inseparable relationship between the traditional foods and Indigenous knowledge of First Peoples. QAIHC (2020) and Apunipima (2020) underline this connection, asserting that the production, procurement and consumption of traditional foods is pivotal in protecting and maintaining Indigenous knowledge (p. 13, p. 17). Similarly, BAC (2020) notes that one of the key benefits of their bush food

enterprise has been the enduring transfer of intergenerational knowledge, as families harvest bush foods like Kakadu Plums together (p. 6). ALPA (2020) asserts that considering and partnering with Indigenous knowledge is essential in any efforts to upscale the local production and supply of food within remote Indigenous communities (p. 29). The NSW ALC (2020) also discuss Indigenous knowledge within the context of increasing the production of bush tucker, and reference a recent symposium in Sydney, which explored the possibility of commercially expanding the bush food market whilst protecting Indigenous knowledge (p. 5). Finally, Apunipima (2020) note the centrality of Indigenous knowledge in the pre-contact food economy of First Peoples (p. 17), and importantly call attention to the colonial degradation of this knowledge (p. 2), a relationship focalised in Chapter 4. Whilst engagement and collaboration with Indigenous communities was frequently mentioned in the various recommendations provided to the Committee by the selected *Aboriginal corporations, councils and alliances,* 'Indigenous knowledge' or any of the six synonymous terms were not stipulated as part of these recommendations.

Much like in the case of bush tucker, the potential of food-specific Indigenous knowledge to support food and nutrition security within remote Indigenous communities was scantly acknowledged amongst the submissions authored by *state, territory and regional government bodies* as well as *non-Indigenous owned service providers and non-profit organisations.* A key word search returned just four results across the two groups of authors. Health and Wellbeing Queensland (2020) mentioned just once that the "dissemination of traditional knowledge" (p. 12) impacted the utilisation of foods at the community level. However, the theme was absent amongst the submissions authored by the remaining four selected government bodies. In their submission, the non-Indigenous owned organisation Food Ladder (2020), discusses the relationship between poor dietary habits amongst First Peoples and the gradual loss of Indigenous knowledge (p. 17), a connection discussed in Chapter 4. As part of their assertions to the Committee, Food Ladder explains that successful food security initiatives in Indigenous communities must engage with "traditional culture and customs" (p. 16), declaring that their own bush tucker programmes integrate "local knowledge systems" (p. 17) in their design. As with the first theme of analysis, the documents authored by the remaining four *non-Indigenous owned*

service providers and non-profit organisations made no mention of Indigenous knowledge in their submissions.

Across the documents authored by *Aboriginal corporations, councils and alliances,* with the addition of that produced by Food Ladder (2020), this theme proved supplementary to the potentials offered by bush tucker in efforts to support food and nutrition security within remote Indigenous communities. That is not to say that Indigenous knowledge is not valued by these communities and organisations. Rather, it appears within the documents as a subsidiary consideration, as authors recommend 'integrating' and 'protecting' this knowledge in primary efforts to boost the production and consumption of traditional foods or assert that the preservation of Indigenous knowledge is a direct output associated with increased bush tucker consumption. The glaring absence of the search term 'Indigenous knowledge' or any of the six synonymous terms within the many recommendations offered across the 20 selected documents may well signal the enduring force of the binary divide (see Chapter 2) within the Australian political landscape. Seemingly, Indigenous knowledge continues to be painted as absent of rigour, accuracy and logic, and incapable of informing formal government-led policies and programmes within Australia.

7.6 Conclusion

In overviewing recent government-led policy and programmes, this chapter has added weight to the opinion that interventions aimed at improving food security and nutritional well-being within remote Indigenous communities via the conventional food system and market economy continue to fall short. The recent inquiry ordered by the federal government into food security and food pricing in remote communities, which served as the basis for the document analysis, is further evidence of this. Using key search terms, the document analysis analysed the prominence of two themes across 20 documents. These themes represent alternative inputs for supporting food and nutrition security within these communities, both of which focalise resources owned by First Peoples including bush tucker and Indigenous knowledge.

In order to facilitate comparison and insightful analysis, the authors of these documents were broken down into three key groupings. Within the ten selected documents submitted by *Aboriginal corporations, councils and alliances,* the potential of bush tucker to support food security and nutritional well-being in remote Indigenous communities proved a prominent theme, both within general discussion and as part of the specific recommendations offered to the Committee. In contrast, this possibility was scarcely acknowledged within documents authored by *state, territory and regional government bodies,* the majority of which made no mention of bush tucker whatsoever. Similarly, Food Ladder (2020) was the only of the five selected *non-Indigenous owned service providers and non-profit organisations* who discussed the value and potentials intrinsic to the traditional foods of First Peoples in their submission. Whilst overall, the potential of Indigenous knowledge for improving food security and nutritional well-being in remote Indigenous communities was acknowledged significantly less within the documents than that offered by bush foods, the patterns of recognition across the author groupings were strikingly similar. Whilst this theme appeared eight times within five of the ten documents submitted by *Aboriginal corporations, councils and alliances,* it appeared just four times within two of the ten submissions authored by the selected *state, territory and regional government bodies* and *non-Indigenous owned service providers and non-profit organisations.*

An initial analysis of the 20 selected documents reveals an obvious disconnect between the potential avenues for supporting food and nutrition security acknowledged and valued by remote Indigenous communities, and those focalised by government bodies and non-Indigenous owned service providers. Crucially, it is these non-Indigenous parties that are so often pivotal in the ability of Indigenous communities to achieve food and nutrition security. Within remote Indigenous communities, bush foods and food-specific knowledge remain important not only as pillars of culture, but also in the present-day function of these resources, which act as a safety net in times where First Peoples seek to circumvent food and nutrition insecurity within the conventional food system. However, the challenge for Australia's First Peoples remains having their unique ways of knowing and being meaningfully reflected in impactful policies, programmes and interventions relating to food security and nutritional well-being within their communities.

Whilst this chapter has alluded to some preliminary conclusions and original intellectual interpretations, the findings from this document analysis will be discussed in more depth in relation to the wider literature in Chapter 8.

Chapter Eight: Discussion and Conclusions

8.1 Introduction

This research set out to explore the potential of bush tucker and Indigenous knowledge to support food and nutrition security within remote Aboriginal and Torres Strait Islander communities. The seven preceding chapters have been designed to achieve the research aim, with each making an important contribution. This thesis began by framing the research focus within the broader scope of health disparity facing Australia's First Peoples and sought to advance calls for health interventions that were increasingly respectful and respondent to Indigenous ways of knowing and being, and which fostered empowerment and self-governance amongst First Peoples. Drawing upon robust development literature, Indigenous knowledge was conceptualised and the complex relationship between Indigenous knowledge and development was explored and linked to hopeful post-development and post-colonial thinking. The shifting landscape of food security was examined and the integrated idea of food and nutrition security conceptualised, before a scoping overview of the state of food and nutrition security within remote Aboriginal and Torres Strait Islander communities was provided. Drawing two key concepts of this research together, the relationship between Indigenous knowledge and traditional foods with food and nutrition security was evidenced using studies from Indigenous contexts in Australia and further afield. These links were strengthened by an in-depth exploration of the traditional food system of Aboriginal and Torres Strait Islander peoples, which supported millennia of health and prosperity prior to European contact. With the support of an array of literature, the pernicious impact of Australia's colonial history on the ability and willingness of First Peoples to support their food and nutrition security by drawing upon their traditional food system was then highlighted, as was the enduring colonial effect on the ability of First Peoples to thrive under the conventional, neo-liberal food system.

With three chapters of literature review setting a sturdy conceptual and contextual foundation, the second half of this thesis began by outlining the methodological considerations for this research. In-line with the research focus, the methodology and methods of data collection sought

to privilege Indigenous ways of knowing and being, working to avoid perpetuating a history of harmful Western research practice on Indigenous peoples. Drawing upon the narrative traditions of Aboriginal and Torres Strait Islander peoples, the following chapter presented the rich findings derived from yarns with four Elders in the remote community of Tennant Creek. Insights shared by the Elders were supported by evidence derived from an analysis of twenty documents submitted as part of the ongoing federal government-led inquiry into food security and food pricing in remote Australian communities. The following and final chapter coalesces the components of this thesis, synthesising the results derived from the Tennant Creek case study and the document analysis, with findings gleaned from the literature. In doing so, this chapter seeks to outline key learnings, draw compelling conclusions and make various recommendations based on this research.

8.2 Food and Nutrition Insecurity in Remote Indigenous Communities: An Underestimated Case of Hidden Hunger

The following section synthesises findings from the Tennant Creek case study and evidence derived from the literature in expressing key learnings regarding the state of food and nutrition security that currently exists within many remote Indigenous communities.

Findings derived from yarns with Elders in Tennant Creek signal that the majority of Indigenous households do not experience acute food shortages, instead focalising the prevalence of poor nutrition and substandard dietary habits amongst First Peoples in the community. These findings are mirrored by earlier studies conducted across remote Indigenous community contexts by Brimblecombe et al. (2013), Brimblecombe & O'Dea (2009) as well as Lee and Lewis (2018), which illuminate that the average diet of First Peoples is characterised by the excessive intake of nutritionally devoid foods and the inadequate intake of foods high in nutritional value. The culmination of evidence derived from the Tennant Creek case study and earlier studies is consistent with the evolving understanding of food security advanced by leading organisations and academics, including the Food and Agricultural Organisation (FAO) (2019), Burchi et al. (2011) and Sunderland et al. (2013) (see Chapter 3). These experts increasingly recognise that

minority groups, including Indigenous peoples, regularly experience moderate food insecurity as a result of poor diet rather than the food shortages traditionally associated with food insecurity. However, rather than discounting the estimated 31% of remote Indigenous households that reported 'running out of food' (Australian Bureau of Statistics [ABS], 2015, para. 2), evidence derived from this study suggests that the prevalence of food insecurity amongst First Peoples in Australia is grossly underestimated and contingent on a measure that does not reflect the integral role of nutritionally rich and diverse diets in achieving food security.

Strewn throughout the narratives of Elders in Tennant Creek was a particular concern towards the proliferation of processed, pre-packaged and ready-to-eat foods in the diets of First Peoples within their community. The 2012-13 AATSIHS illuminates that an over-reliance on discretionary foods amongst Aboriginal and Torres Strait Islander peoples not only occurs within Tennant Creek, with discretionary foods accounting for 41% of the total daily energy consumed as part of the average diet consumed by First Peoples (ABS, 2015, p. 44). This national estimate is supported by earlier independent studies, with Lee and Lewis (2018) uncovering that 62% of the average food budget across five remote communities was spent on discretionary food items. The Tennant Creek Elders did however, demonstrate a clear understanding of the pernicious relationship between these dietary habits and the widespread disease and early deaths experienced by First Peoples in their community. The Elders' cause for concern is ratified by academics including Brimblecombe et al. (2013) and Ferguson et al. (2016), who contend that the chronic diseases that precipitate the early deaths of First Peoples are underpinned by a lack of dietary quality, and the resulting forms of malnutrition including overweight and obesity. The experience of First Peoples living in Tennant Creek and other remote communities across Australia is therefore congruent with what Burchi et al. (2011) term *hidden hunger*, which despite lacking many of the signposts typical of acute hunger, is equally detrimental to the health and development of individuals and communities (see Chapter 3).

Substantiated by evidence derived from earlier studies in remote Indigenous communities across Australia, the results of the Tennant Creek case study signal that whilst ensuring consistent food availability remains important, there is an urgent need for powerful interventions that focus on shifting the dietary habits of Aboriginal and Torres Strait Islander peoples. Importantly, given

the deluge of evidence linking food and nutrition insecurity with the dismal health outcomes and low life expectancy experienced by First Peoples, efforts to decrease the overreliance on discretionary and nutritionally devoid foods within Indigenous communities is an essential step forward in 'closing the gap' in the health and well-being of Australia's First Peoples (see Chapter 1). However, tackling the overconsumption of discretionary foods and the under-consumption of nutritionally rich foods within remote Indigenous communities is no simple fix. As the next section will illuminate in more depth, the dire state of food and nutrition security within remote Indigenous communities is the result of a network of complex determinants.

8.3 Determinants of Food and Nutrition Security in Remote Indigenous Communities: A Labyrinthine Network of Variables

The following section synthesises findings from the Tennant Creek case study and evidence derived from the literature in outlining key learnings regarding the key determinants of food and nutrition insecurity in remote Indigenous communities.

Using the pillars of the conventional food security framework (see Figure 3.1), the food and nutrition insecurity experienced by minority groups is often underpinned by the structural barriers facing these communities (Barrett, 2010; Hwalla et al., 2016; FAO, 2016). Of these barriers, earlier studies conducted within remote Indigenous communities across Australia overwhelmingly focus on the impact of socio-economic disadvantage. Brimblecombe et al. (2014), as well as Brimblecombe & O'Dea (2009) uncovered that Aboriginal and Torres Strait Islander people are driven by the economics of food choice and will often compromise the nutritional quality as they seek low-cost, energy-dense foods. This evidence is seemingly corroborated by figures released by the Aboriginal Institute of Health and Welfare (2019a, 2019b), which signal that socioeconomic disadvantage and unemployment is particularly rife in remote Indigenous communities. However, findings from the Tennant Creek case study serve in contrast to these earlier studies. Economic access did not emerge from the narratives of community Elders as a key determinant of First Peoples' overreliance on discretionary foods

within Tennant Creek. Evidence derived from the comprehensive Northern Territory Market Basket Survey (MBS) (Northern Territory Government, 2017) (see Chapter 4), which indicates that the cost of a healthy diet is in-fact cheaper than the average diet currently being consumed by Aboriginal and Torres Strait Islander households across the territory, similarly signals that the proliferation of discretionary foods in remote Indigenous communities cannot be attributed to socioeconomic disadvantage alone.

Instead, these dietary habits must be understood as the result of a combination of multiple complex factors. Rather than lacking economic access, Elders in Tennant Creek highlighted that First Peoples in the community lack the money management skills needed to succeed within the market-driven conventional food system. The Elders noted that a dearth of financial literacy is further exacerbated by the widespread social woes of alcoholism and drug-abuse, with the purchase of these substances often taking priority over the purchase of adequate nutritious food. When considering the cost of these competing priorities, especially within remote settings, this revelation adds further weight to the assertion that socioeconomic disadvantage cannot be held as primarily responsible for the poor food and nutrition security across all remote Indigenous communities. Furthermore, this evidence signals that any hopes of ameliorating food and nutrition insecurity within remote Indigenous communities may be contingent on addressing the additional complex social dilemmas facing First Peoples in tandem.

Earlier studies focusing on the determinants of food and nutrition within remote Indigenous communities also commonly highlighted the lack of *availability* of nutritious food options. Lee (1996), Lee et al. (1996), Pollard (2013), Pollard et al. (2014), Saethre (2005), Scleza (2012), as well as Webb and Leeder (2007), discovered that remoteness inhibits the consistent delivery of nutritionally rich fresh foods, which is reliant on roading conditions, costly cool-storage transportation, the infrastructure of remote community stores and the attitudes of the store owners. With physical *access* to larger supermarkets often implausible, these studies asserted that food and nutrition security within many remote Indigenous communities often hinges on the supplies stocked by remote community stores. Although Jakamarra briefly mentioned instances of increased competition for food due to influxes of underequipped tourists and community-outsiders stocking up at the township's IGA supermarket, a lack of availability did not emerge

from the case study as a key determinant of the food and nutrition insecurity experienced by First Peoples in Tennant Creek. The divergence of this result from earlier studies can perhaps be explained by the level of services offered to Tennant Creek, that are not available in other communities classified by the ABS as 'very remote' (see Chapter 1). Unlike many remote Indigenous communities that may be serviced by a lone community store, First Peoples in Tennant Creek are privy to an IGA supermarket, butcher shop and a number of other food outlets, which provide fresh meat and produce to the community.

Yet, despite First Peoples in Tennant Creek having an increased number of options through which to achieve food and nutrition security in comparison to other remote communities, results derived from the case study underline that the entitlement of choice can in-fact undermine food security and nutritional well-being. In yarning with the Elders, *convenience* overwhelmingly emerged as the main driver of poor dietary habits amongst First Peoples in the community. As the Elders explained, the myriad of takeaway shops and other food retailers selling ready-to-eat offerings discourages Indigenous households from the time-consuming task of purchasing and preparing nutritionally rich meals using fresh meat and produce. These findings further highlight the complexity and variability of the determinants underpinning food and nutrition insecurity in remote Indigenous communities, and signal that there is no one-size-fits-all approach to tackling this significant challenge. As such, this result underscores the need for deep consultation with Indigenous communities on a community-to-community basis as part of the design and delivery of food and nutrition security interventions, in order to ascertain how best to overcome driving factors like convenience.

In addition to convenience, the Elders narratives revealed that Indigenous households lack the nutrition literacy needed to guide appropriate food-related decision making within the conventional food system (see Chapter 4). Brian asserted that this dearth of nutritional knowledge stems from the lack of quality Western education received by many First Peoples in Tennant Creek. These results are congruent with early studies conducted by Saethre (2005) and Brimblecombe et al. (2014), which uncovered that First Peoples continue to feel underequipped to thrive within the conventional food regime. As Brimblecombe et al. (2014) noted, these feelings are particularly strong amongst older generations, many of whom subsequently lack the

confidence to teach younger generations about healthy food choices. However, Brian's proclamation appears particularly interesting when considering that both he and the other Elders demonstrate a clear understanding regarding the lack of nutritional quality in pre-packaged convenience foods, and the devastating impacts of the overconsumption of discretionary foods on the health of their community. In-fact, in contrast to the study conducted by Brimblecombe et al. (2014), both Valda and Dianne presented examples of challenging youth in their community about their overreliance on discretionary and convenience foods, proving that some Elders were also confident in transmitting their nutritional literacy to younger generations. The inconsistency in these findings signals the need for interventions focused on the increased provision of food and nutrition-related education and information within remote Indigenous communities, to ensure that all Aboriginal and Torres Strait Islander peoples feel equipped to utilise and transmit nutrition literacy relating to the conventional food system.

Whilst the relationship between colonialism and present-day food and nutrition insecurity experienced by First Peoples was a topic of focus in the literature reviewed (see Chapter 4), the Tennant Creek Elders did not draw these same explicit links in discussing the state of food and nutrition security amongst First Peoples in their community. Instead, entrenched in the Elders' stories of anguish, was the feeling that the poor state of food and nutrition security amongst their peoples was 'just the way things had panned out'. This attitude can be linked with post-colonial thinking (see Chapter 2). The conventional Western food system is just one feature of a Eurocentric existence that has covertly naturalised itself as the dominant force (McEwan, 2008) in the lives and minds of First Peoples in Tennant Creek, in such a way that colonialism cannot be identified by those it impacts as culpable. However, for those on the outside looking in, including Wiradjuri researcher Sherwood (2013) and the author of the 2018 Close the Gap Report, Holland (2018), the explicit links between colonialism and the complex determinants of the present-day health of Australia's First Peoples cannot be ignored (see Chapter 1). Indeed, colonialism cannot escape prosecution when assessing the present-day food and nutrition insecurity amongst First Peoples in Tennant Creek. As Chapter 4 explored in depth, the colonial and post-colonial barrage has gradually decimated the traditional food system of Australia's First Peoples, which prior to European invasion, had supported the prosperous existence of Indigenous nations across the Australian landmass for millennia. As such, colonialism can be deemed

directly responsible for strong-arming First Peoples, including those in Tennant Creek, into relying on a neoliberal food regime within which minority groups remain at a significant disadvantage in their efforts to attain food security and nutritional well-being (Cote, 2016; Huambachano, 2018).

In-fact, the specific key determinants of food and nutrition insecurity that emerged from the Tennant Creek case study share a close relationship with the neoliberal ideologies that form the foundation of the over-commodified, market-driven conventional food system (see Chapter 3). The propagation of takeaway shops and stores, which as the Elders described, flood the Tennant Creek community, is a clear reflection of the capital-driven, consumer-focused competition that defines the neoliberal food system. Flowing on a conveyor-belt of neoliberal efficiency and convenience from these stores are the types of hyper-industrialised, heavily processed and ready-to-eat food options that are more concerned by creating profit than supporting food and nutrition security. Importantly, these are the foods identified by Tennant Creek Elders as being overwhelmingly responsible for the poor nutritional well-being and dire associated health outcomes facing their peoples. Furthermore, reports of poor financial literacy amongst First Peoples in Tennant Creek can be explained by the dichotomy between the neoliberal ideologies of individual wealth and unrestrained capitalism, and the communal well-being prioritised within the traditional economy of First Peoples. To the demise of Indigenous households in the community, these budgeting skills are all-but required to attain food and nutrition security within the conventional food system. Similarly, the Elders' reports of low nutrition literacy regarding this introduced food system amongst their peoples is further substantiated, when considering the direct contrast between a system of store-bought ease and the traditional food system of First Peoples, which requires increased time, energy, effort and an innate understanding of their natural environment (see Chapter 4). The following section explores the enduring role of the traditional food system in supporting present day food and nutrition security within remote Indigenous communities and highlights the complex barriers that inhibit First Peoples' efforts to draw upon their traditional foods and food-specific Indigenous knowledge as a support mechanism.

8.4 The Enduring Role of the Traditional Food System in the Food and Nutrition Security of Remote Indigenous Communities: Present-Day Functions and Key Challenges

The following sections combine evidence derived from the literature and findings from this study in conveying key learnings regarding the enduring role of traditional foods and food-specific Indigenous knowledge in remote Indigenous communities' efforts to support of their food and nutrition security. The discussion also communicates key learnings regarding the factors that impact the ability and willingness of First Peoples to draw upon these traditional resources. The discussion will be divided into two sections, outlining key learnings in relation to bush tucker and food-specific Indigenous knowledge separately.

8.4.1 Bush foods

Findings derived from an analysis of documents submitted as part of the ongoing Australian federal government inquiry into food security and food pricing in remote communities (see Chapter 7), signal that the traditional food system of Aboriginal and Torres Strait Islander peoples acts as a significant means of support in the efforts of some Indigenous communities to achieve food and nutrition security. Documents submitted by the Queensland Aboriginal and Islander Health Council (QAIHC) (2020) and the Apunipima Cape York Health Council (Apunipima) (2020) are corroborated by a number of earlier studies conducted by Brimblecombe et al. (2014), Ferguson et al. (2017) and Saethre (2005) (see Chapter 3), which contend that the increased procurement and consumption of bush tucker is a coping mechanism for First Peoples within their jurisdictions who experience food insecurity, particularly in times of market and economic scarcity. Using the pillars of the conventional food security framework (see Figure 3.1), these findings signal that many remote Indigenous communities utilise their traditional food system as a form of *stability* in times where food and nutrition security cannot be achieved via the conventional food system. As such, this study infers that for many remote Indigenous communities, drawing upon their traditional foods is seemingly a reactive rather than a proactive strategy to achieve food and nutrition security. This finding not only reaffirms the growing

dominance of the conventional food system within remote Indigenous communities as the primary means of attaining food security and nutritional well-being, but also signals that this system continues to fail Aboriginal and Torres Strait Islander peoples.

Results from the Tennant Creek case study, however, illuminate that the function of bush foods in First Peoples' efforts to achieve food and nutrition security is highly variable. The increased procurement and consumption of bush tucker did not emerge as a safety net in three of the four Elder's efforts to achieve food security within Tennant Creek. Taken in conjunction with aforementioned evidence derived from the case study, this result highlights that the regularity of bush food procurement and consumption within remote communities, may be contingent on the level of conventional food services available to these communities. Whilst other remote Indigenous communities that are serviced by a lone and often-underequipped community store may turn to their Country for traditional foods out of necessity in times of market or economic scarcity, First Peoples in Tennant Creek have an array of conventional options through which to achieve food and nutrition security. The causal relationship between the proliferation of the store-bought food system and the dwindling role of bush foods in the lives of First Peoples will be explored further in the coming paragraphs.

The narratives of Tennant Creek Elders provide a clear insight into the multitude of barriers that inhibit some remote Indigenous communities from regularly procuring and consuming their traditional foods. Elders noted challenges including the distance from the township to the tracts of Country abundant with bush tucker, which alongside costs associated with bullets, firearms, hunting licenses and weapons registration, required costly access to four-wheel-drive vehicles, petrol and vehicle maintenance. The barriers identified by Elders in Tennant Creek are consistent with earlier studies conducted by Saethre (2005) and Leonard et al. (2017), which similarly discovered that Aboriginal and Torres Strait Islander peoples were hampered by both physical accessibility to their traditional foods, alongside a lack of economic access to the resources required to procure these foods. Whilst the impact of socioeconomic disadvantage on the ability of First Peoples to achieve food and nutrition security via the conventional food system was inconsistent across the Tennant Creek case study and earlier studies, the impact of

socioeconomic disadvantage on the ability of First Peoples to support their food and security via traditional means appears commonplace across remote Indigenous community contexts.
In addition, the Tennant Creek case study also provided new insights that were not prominent within the wider literature. The four Elders' described the clear distinction between the function of bush foods in the lives of First Peoples within the township, versus those living on the settlements and outstations surrounding Tennant Creek. Whilst the three Elders living within the township noted the lack of bush foods in their lives, one of the Elders, Dianne, described how she continues to live on her traditional homelands in a humpy, consuming a diet predominantly consisting of traditional foods. These results suggest that for Aboriginal and Torres Strait Islander peoples like Dianne, living in close proximity to the tracts of Country where bush foods are relatively abundant removes both the barrier of physical access as well as the barrier of economic access stemming from transport-related costs. This important finding is a strong indication that in order for remote Indigenous communities like Tennant Creek to begin to reinvigorate the regular inclusion of bush foods in their diets, as they strive to achieve food and nutrition security, improved physical access to these traditional resources is required. The finding similarly signals that harnessing the existing capabilities of First Peoples living largely traditional lifestyles on the outstations surrounding communities like Tennant Creek, may be pivotal in maximising the potential of bush tucker to support the food and nutrition security of the wider community. This possibility shows a clear relationship with the assertions of hopeful post-development scholars including McGregor (2009) (see Chapter 2), who the power of human agency found within social minority groups, including Indigenous peoples, to shape alternative pathways to development. The opportunity not only draws upon the unique food-related knowledge, skills and practices of First Peoples like Dianne, who remain strongly connected to their culture and traditions. This opportunity also offers a counter-hegemonic approach to achieving food and nutrition security outside of the parameters of the neo-liberal food regime, in a way that advances self-governance and strengthens culture within Indigenous communities (McGregor, 2009). These ideas will be explored further in the coming sections.

Despite abundant pockets of bush foods still existing, albeit on increasingly remote tracts of Country, Elders in Tennant Creek provided a powerful contemporary reminder of the devastating impact of land dispossession and degradation on the health of their Country and subsequently,

the availability of bush foods. Three of the four Elders directed responsibility for their dwindling stocks of bush tucker towards the impact of livestock, pastoralism and other human-induced land interventions. Such evidence suggests that many of the barriers impacting the regular procurement and consumption of bush foods within remote Indigenous communities are still strongly tied to a colonial history, which in this instance, saw the introduction of European agricultural practices. The Elders' ascriptions of responsibility are mirrored within documents submitted by *Aboriginal corporations, councils and alliances,* including the Aboriginal Health Council of Western Australia (AHCWA) (2020), Apunipima (2020) and the QAIHC (2020), all of whom note the long-standing impacts of colonial land dispossession on the traditional food system of First Peoples. These claims not only emanate from Indigenous communities and Aboriginal organisations but are also found within literature authored by Australian academics, including Boulton (2016), Kouris-Blazos and Wahlqvist (2000), Rhea (2017) and Sebastian and Donnelly (2013), who describe the decimation of the traditional food system as Aboriginal and Torres Strait Islander peoples were displaced from their most fruitful lands for colonial agricultural interests. Building on the implications of earlier studies, findings derived from the Tennant Creek case study and the document analysis evidence the declarations of post-colonial scholars like Ghandi (2018), who posit that the end of colonialism does not spell the end of colonial impact (see Chapter 2).

Yet, much like the barriers experienced by First Peoples in their efforts to achieve food and nutrition security via the conventional food system, the Tennant Creek case study suggests that the barriers inhibiting many First Peoples from procuring and consuming bush foods are not limited in their relationship with Australia's colonial history. In analysing these barriers, it is clear that the ability and willingness of these communities to engage with their traditional food system is also by the dominant neoliberal ideologies that underpin the conventional food system. The pervasive impact of the neoliberal food regime on the ability of remote Indigenous communities like Tennant Creek to draw upon bush foods in support of food and nutrition security is evidenced in-part by the colossal cattle stations that litter the Barkly region (see Chapter 6). As these stations attempt to meet the demands of the market-driven conventional food system via industrialised agricultural output, livestock, grazing and land management practices continue to depreciate the land of First Peoples in the region, and the fragile remaining

stocks of traditional food that this Country facilitates. Additionally, when presented with the store-bought system's contemporary convenience, over-accessibility and cost-effectiveness, First Peoples in Tennant Creek become increasingly discouraged from engaging in the time and resource sapping efforts of procuring and preparing traditional foods. Apparent here is a snapshot of how pervasive Western worldviews have gradually demoted the traditional food system of First Peoples, and in doing so, naturalised the conventional food system as the undisputed dominant force. The following section shifts to focus on Indigenous knowledge.

8.4.2 Food-Specific Indigenous Knowledge

The narratives of Elders in Tennant Creek underline the inseparable relationship between food-specific Indigenous knowledge and bush foods. Jakamarra, Dianne, Brian and Valda credited growing up on Country in the footsteps of their own Elders for creating opportunities for the type of food-related knowledge transmission that ultimately underpins their ability to procure, prepare and consume bush foods. This result is substantiated by the works of Davy (2016), Lingard (2016), O'Dea et al. (1991), Pascoe (2017) and Rhea (2017). The authors illustrate that the regionally specific, experiential and innate knowledge of Country, flora and fauna that was transmitted between generations of Aboriginal and Torres Strait Islander peoples, acted as a linchpin in the ability of First Peoples to skillfully manage and purposefully move throughout their Country hunting, harvesting and gathering traditions foods, prior to European contact (see Chapter 4). Supported by additional evidence from the literature, findings derived from the Tennant Creek case study indicate that any attempt to reinvigorate the regular procurement and consumption of bush tucker within remote Indigenous communities, must simultaneously endeavour to safeguard Indigenous knowledge, protect channels of knowledge dissemination, and maintain regular opportunities for Elders to share their food-specific knowledge with youth.

However, the narratives shared by Elders in Tennant Creek highlight the retention and transmission of food-related Indigenous knowledge are increasingly under threat within the community. As many community Elders seek to assimilate to a dominant Western lifestyle and become gradually divorced from culture and tradition, Dianne and Jakamarra signalled that these Elders simply no longer possess the expert food-specific Indigenous knowledge to transmit to

Tennant Creek's youth. These results not only illuminate the magnitude of the current challenge of reinvigorating the everyday role of bush tucker within Indigenous communities, but similarly suggests that the injury of transgenerational knowledge is not a present-day phenomenon. Instead, as expressed within documents authored by Apunipima (2020), the QAIHC (2020), and Food Ladder (2020), the Tennant Creek case study implies that the decimation of food-specific Indigenous knowledge amongst Aboriginal and Torres Strait Islander peoples can be linked back to decades of concentrated cultural disenfranchisement experienced by Australia's First Peoples.

Findings indicating the noxious impact of dominant Western culture on the Indigenous knowledge systems of First Peoples can be reinforced using the assertions of post-colonial scholars such as McEwan (2008) and McGregor (2009). The authors postulate that the dismantling and hierarchisation of knowledge systems serves as a primary avenue through which colonial forces sought to consolidate their power in a post-colonial world (see Chapter 2). As Indigenous knowledge researchers Battiste (2005), Sillitoe and Marzano (2009) contend, this Eurocentric quest for power has seen the unique knowledge systems belonging to Indigenous groups discarded as primitive systems holding little value to a contemporary Western existence. Within Australia's colonial context, this pernicious process is perhaps no better exemplified than by the rigorous child removal regime, widely referred to as the 'Stolen Generations' (see Chapter 4). As academics such as Sebastian and Donnelly (2013) note, the regime worked fervently to divorce Aboriginal and Torres Strait Islander youth from their traditional food-related knowledge, practices and culture. The impacts of this agenda have undoubtedly trickled down through generations of Australia's First Peoples. This research therefore highlights that the impact of colonialism has not only operated overtly to divorce First Peoples from their traditional foods via avenues including the unconcealed dispossession of traditional lands and the blatant displacement of First Peoples from their Country, as has been the focus of much of the literature (see Chapter 4). The results of this research also highlight that colonialism and the gradual naturalisation of Western worldviews have worked surreptitiously to alienate First Peoples from a delicate knowledge system, which is so essential in keeping their traditional food system, culture and practices alive.

Despite the Elders demonstrating much concern towards the declining stocks of expert food-specific Indigenous knowledge within their community, Dianne's stories of teaching her children, grandchildren and other youth how to procure and prepare traditional foods at her humpy prove that some Elders remain determined to keep this knowledge alive. However, mirroring the aforementioned disparity between the place of bush tucker in the lives of townsfolk versus those leading largely traditional lifestyles on the homelands surrounding Tennant Creek, Brian illuminated that community members like Dianne had a greater capacity to retain and subsequently transmit food-specific Indigenous knowledge, as they regularly procured, prepared and consumed bush foods. Brian's assertion is consistent with submissions authored by Apunipima (2020), QAIHC (2020) and Bawinanga Aboriginal Corporation (BAC) (2020) (see Chapter 7), all of which underline the importance of opportunities to procure and prepare bush foods for creating significant opportunities for intergenerational knowledge transfer. Such findings re-iterate the inseparable two-way relationship between bush foods and Indigenous knowledge. Whilst the procurement and preparation of bush foods remains contingent on the retention and transmission of Indigenous knowledge, opportunities to retain and transmit this knowledge remain largely reliant on Elders like Dianne taking the younger generation out on Country to harvest, hunt, gather and prepare traditional foods. As such, these findings again underline the critical role that First Peoples maintaining predominantly traditional play in any hope of achieving a future where communities' can once again harness and maximise the potential of their traditional food system in support of food and nutrition security.

Yet, the Tennant Creek case study also revealed that the retention of this knowledge by Elders in the community is only one half of the equation. Valda exclaimed that the intergenerational transmission of food-specific Indigenous knowledge was challenged by growing autonomy, distraction and high rates of incarceration amongst Aboriginal and Torres Strait Islander youth within Tennant Creek. This result is consistent with an earlier study conducted by Brimblecombe et al. (2014), which similarly uncovered a growing concern amongst Elders regarding a loss of interest in traditional food related practices and culture amongst youth (see Chapter 4). With the added support of earlier studies, Valda's assertion reaffirms the pervasive influence of dominant Western culture on the ability and willingness of remote Indigenous communities to remain connected with their traditional food system. Born into an increasingly Eurocentric existence

characterised by increased choice, freedom and contemporary distraction, many Aboriginal and Torres Strait Islander youth seemingly struggle to coalesce a fast-paced Western existence with maintaining connection to their traditions and culture. Again, apparent here are the impacts of what Said (1989), Battiste (2005) and Sillitoe and Marzano (2009) describe as the hierarchisation of knowledge, lifestyles and cultures, where the identities and traditional practices of Indigenous peoples have been rendered as irrelevant to a Western lifestyle (see Chapter 2).

Figure 8.1 below provides a visual representation of the factors that this study has found to impact the ability and willingness of remote Indigenous communities to draw upon bush foods and Indigenous knowledge in support of their food and nutrition security. Figure 8.1 is adapted from an illustration found within a study conducted by Elliot et al. (2012) (see Chapter 3), which sought to understand the factors that influenced First Nations peoples access to traditional food within the urban context of Vancouver, British Columbia. Interestingly, many of these contributing factors are mirrored within a remote Aboriginal and Torres Strait Islander context, suggesting that whilst Indigenous groups maintain their own unique cultures and identities, many of the structural barriers and challenges they face in remaining connected to these food-related cultural identities and traditions are similar. Figure 8.1 should be viewed starting atThe heouter ring, which is made up of domineering macro factors that have directly or indirectly caused the plethora of social, economic, environmental and cultural factors illustrated within the second ring. The factors within the second ring, such as unemployment and welfare dependency, covertly impact the ability and willingness of First Peoples to draw upon their traditional resources in support of food and nutrition security. The inner or third ring illustrates factors decreased physical and economic access to traditional foods that overtly impact the ability and willingness of First Peoples to draw upon their traditional foods and food-related Indigenous knowledge in support of food and nutrition security. Again, these factors are direct and indirect outcomes of the factors listed within the second ring.

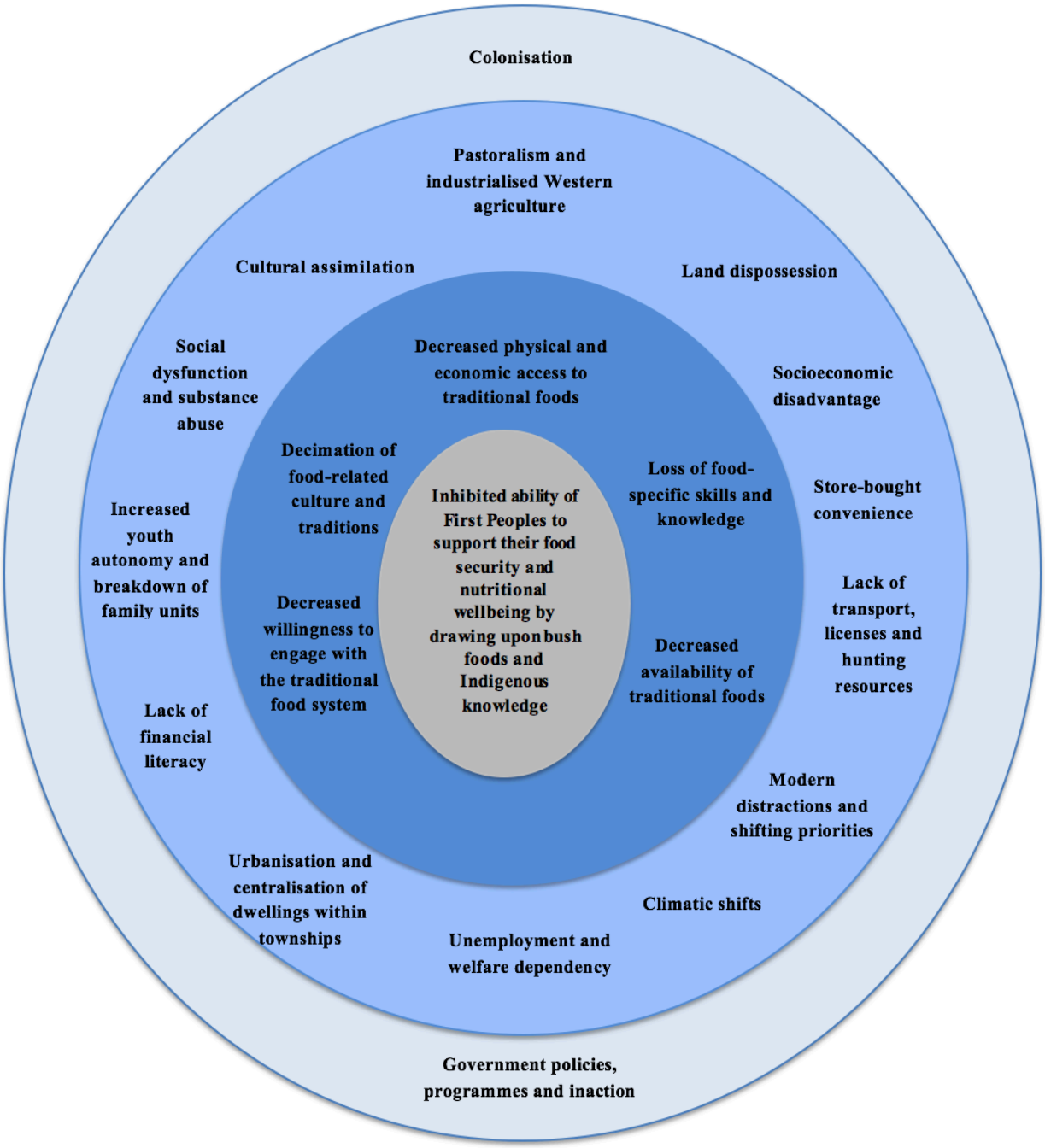

Figure 8.1: Factors inhibiting the ability and willingness of First Peoples to support their food security and nutritional wellbeing by drawing upon bush foods and Indigenous knowledge (Source: Author - adapted from Elliot et al., 2012, p. 4).

Results derived from yarns with Elders in Tennant Creek and the document analysis corroborate findings from earlier studies in illuminating that remote Indigenous communities face significant barriers in their efforts to draw upon bush foods and Indigenous knowledge in support of their food and nutrition security. As the following section evidences, despite these barriers, remote Indigenous communities across Australia unquestionably recognise the inherent potential for their traditional foods and knowledge to support improved outcomes in the realm of food and nutrition security and beyond.

8.5 The Great Divide: Recognising the Potential for Bush Tucker and Indigenous Knowledge to Support Food and Nutrition Security within Remote Indigenous Communities

The following section synthesises results derived from yarns with Elders in Tennant Creek and the document analysis with evidence from earlier studies in communicating key learnings regarding how remote Indigenous communities as well as recent Australian government-led policies, programmes and inquiries acknowledge traditional food and Indigenous knowledge in relation to food and nutrition security.

The Tennant Creek Elders demonstrate a clear recognition as to the potential of bush tucker and Indigenous knowledge to support food and nutrition security within their community. In particularly, the Elders highlight the dichotomy between the nutritional benefits associated with bush foods, versus the harmful effects of consuming the pre-packaged, ready-to-eat and processed store-bought items that proliferate their community. A resounding understanding of the rich nutritional profile of traditional foods within Indigenous communities is similarly evident amongst four submissions authored by *Aboriginal corporations, councils and alliances* as part of the document analysis. The AHCWA (2020), Apunipima (2020), BAC (2020), and the QAIHC (2020) highlight that First Peoples within their jurisdiction recognise that bush foods support superior nutritional outcomes. Recognition amongst Indigenous communities is backed by earlier studies conducted by O'Dea (1983, 1984), O'Dea and Spargo (1982), as well as Smith and Smith (2003), which prove that the regular consumption of bush tucker can combat a number

of diet-related chronic diseases experienced by Aboriginal and Torres Strait Islander peoples. This supplementary evidence is not limited to an Australian context and is reiterated by dietary analyses conducted amongst First Nations peoples in Canada by Elliot et al. (2012) as well as Fieldhouse and Thompson (2012) (see Chapter 3). First Peoples' distinct recognition regarding the rich nutritional profile of their traditional foods is a vital stepping-stone towards a future where these resources form part of a proactive community-led strategy for achieving food and nutrition security within remote Indigenous contexts.

However, results derived from this research affirm that viewing the reinstated role of bush foods and food-specific Indigenous knowledge as merely an avenue for improving food and nutrition security outcomes in remote Indigenous communities would be grossly understating the true power and potential of this opportunity. Laced throughout the narratives of two of the four Tennant Creek Elders, and within documents authored by AHCWA (2020), Apunipima, (2020), BAC (2020) and the QAIHC (2020), are the holistic health benefits that Indigenous communities associate with procuring and consuming bush foods as well as retaining and transmitting food-specific Indigenous knowledge. These diverse accounts illuminate that for Australia's First Peoples, drawing upon these traditional resources is essential in strengthening spiritual, emotional and cultural well-being within Indigenous communities. For example, Tennant Creek Elders Valda and Dianne asserted that these opportunities strengthen familial ties, nourish connection to Country, and ensure that fragile stocks of food-specific Indigenous knowledge are safeguarded for the benefit of future generations – a crucial step in cultural survival.

Present within the narratives of community Elders like Valda and Dianne is an 'Indigenised' view of food sovereignty, that is consistent with literature authored by Cote (2016), Grey and Patel (2016) (see Chapter 3). The authors agree that for many Indigenous groups, food sovereignty is less about achieving a utopian reality of complete self-sufficiency, and more about seeking avenues that allow their peoples to protect, reinstate and exercise their food-related cultures, knowledges, practices and traditions. This research suggests that for Aboriginal and Torres Strait Islander peoples, decreasing their dependency on the conventional food regime by reconnecting with their traditional food system is a decolonising process, which advances their quest to strengthen and preserve culture and tradition. Seizing these opportunities is perhaps

more pivotal now than ever, as the prongs of a contemporary Westernised existence increasingly divorce First Peoples away from these traditions and cultures. Originally, this thesis was designed to explore the potential of the traditional foods and knowledge of Aboriginal and Torres Strait Islander peoples to support food and nutrition security within remote communities. However, such findings make it difficult to ignore that a reinvigorated space for bush foods and Indigenous knowledge in the lives of First Peoples can simultaneously affect culturally significant progress far beyond the parameters of food security and nutritional well-being.

Results from this study underscore that First Peoples are not constrained to simply recognising the multifaceted health benefits stemming from the reinvigoration of their traditional food system. Both the Tennant Creek case study and the analysis of submissions authored by *Aboriginal corporations, councils and alliances* reveal dynamic and diverse examples of small-scale Indigenous-led operations, which are striving to improve community-wide access to bush tucker, protect food-specific Indigenous knowledge and advance holistic well-being. Within the small community of Tennant Creek alone, grassroots ventures include Dianne's experimentation with growing traditional staple crops in the Julalikari Council's nursery, the popular sale of kangaroo tails procured by First Peoples in the community's caravan park stores, as well as a grandmothers and young mothers group, where female Elders teach their daughters how to procure and prepare bush tucker on Country. Similar ventures are present in other remote community contexts, evidenced by examples such as the Maningrida Wild Foods enterprise, where First Peoples procure and sell bush foods at an affordable price to Maningrida and other remote communities in Arnhem Land (BAC, 2020) (see Chapter 7). This evidence of the grassroots efforts of First Peoples across Australia not only underlines the shared aspiration of remote Indigenous communities to support their food security, nutritional well-being and holistic health by drawing upon traditional resources. These results also signal that a strong community-led framework that is capable of acting as a foundation for advancing the scope, size and impact of these grassroots operations, in order to affect widespread change at the community level, already exists.

Evidence from this study indicates that within remote communities like Tennant Creek, a strong desire to expand, diversify and evolve these grassroots efforts is present amongst First Peoples.

Valda fervently referenced community-held aspirations to develop Indigenous-led production and procurement operations on the homelands surrounding Tennant Creek, where large quantities of bush tucker could subsequently be made available to the wider community. Similarly, Dianne shared her hopes to advance her cultivation of traditional staples beyond the confines of the Julalikari Council nursery, planting community gardens full of bush tucker that is readily available to Indigenous households in the township. Arguably, it is this type of evolution and expansion that is required if the traditional resources of First Peoples are to support improved food and nutrition security experienced within remote Indigenous communities. Realising the aspirations of community Elders like Valda and Dianne is especially crucial if First Peoples in remote communities are to resist the draws of convenience, availability and affordability offered by the conventional food system, and instead re-engage regularly with their traditional offerings as a proactive strategy to achieve food and nutrition security.

In line with the holistic health benefits that Australia's First Peoples associate with opportunities to draw upon bush-tucker and Indigenous knowledge, Elders in Tennant Creek asserted that the expansion of community-led ventures can advance community aspirations far beyond the realm of improved food and nutrition security. As Valda affirmed, upscaling the production of bush tucker in her community represents an avenue for employment for the significant number of unemployed Aboriginal and Torres Strait Islander peoples within the community. Further benefits emanate from such culturally meaningful employment, including increased economic independence and the chance to break from welfare dependency (see Chapter 4), all of which underpin the holistic well-being and socio-economic advancement of First Peoples. As Valda noted, this type of employment would also give First Peoples in her community a sense of purpose, long-term direction and the chance to heal from the multi-generation trauma and disempowerment experienced by her peoples. Additionally, both Valda and Jakamarra spoke about opportunities to integrate programmes focused on learning about and producing bush foods as part of the court sentencing and rehabilitation process for young Indigenous offenders. The Elders contend that such opportunities would offer more culturally appropriate reform alternatives to the high rate of youth incarceration that proliferates remote communities like Tennant Creek. Whilst this study remains primarily concerned by the aspirations of First Peoples, also present here is a mutually beneficial opportunity for state, federal and local

government to progress their own objectives of tackling Indigenous unemployment in remote communities and addressing rates of recidivist offending amongst Indigenous youth.

In order to illustrate these results, Figure 8.2 below provides a visual representation of the multi-faceted benefits that stem from the increased Indigenous-led production, procurement and consumption of traditional foods within remote communities. Whilst much like Figure 8.1, Figure 8.2 is adapted from the work of Elliot et al. (2012), Figure 8.2 must be viewed from the core ring moving outwards. The inner or second ring illuminates potential benefits of the increased production, procurement and consumption of traditional foods as they relate to improved food security and nutritional wellbeing within remote Indigenous community contexts. However, mirroring efforts to expand the focus of this research in line with the holistic perspectives of health and wellbeing shared by Aboriginal and Torres Strait Islander peoples, the outer ring illustrates the broader social, cultural, economic, political and environmental benefits associated with the increased production, procurement and consumption of traditional foods within remote Indigenous communities.

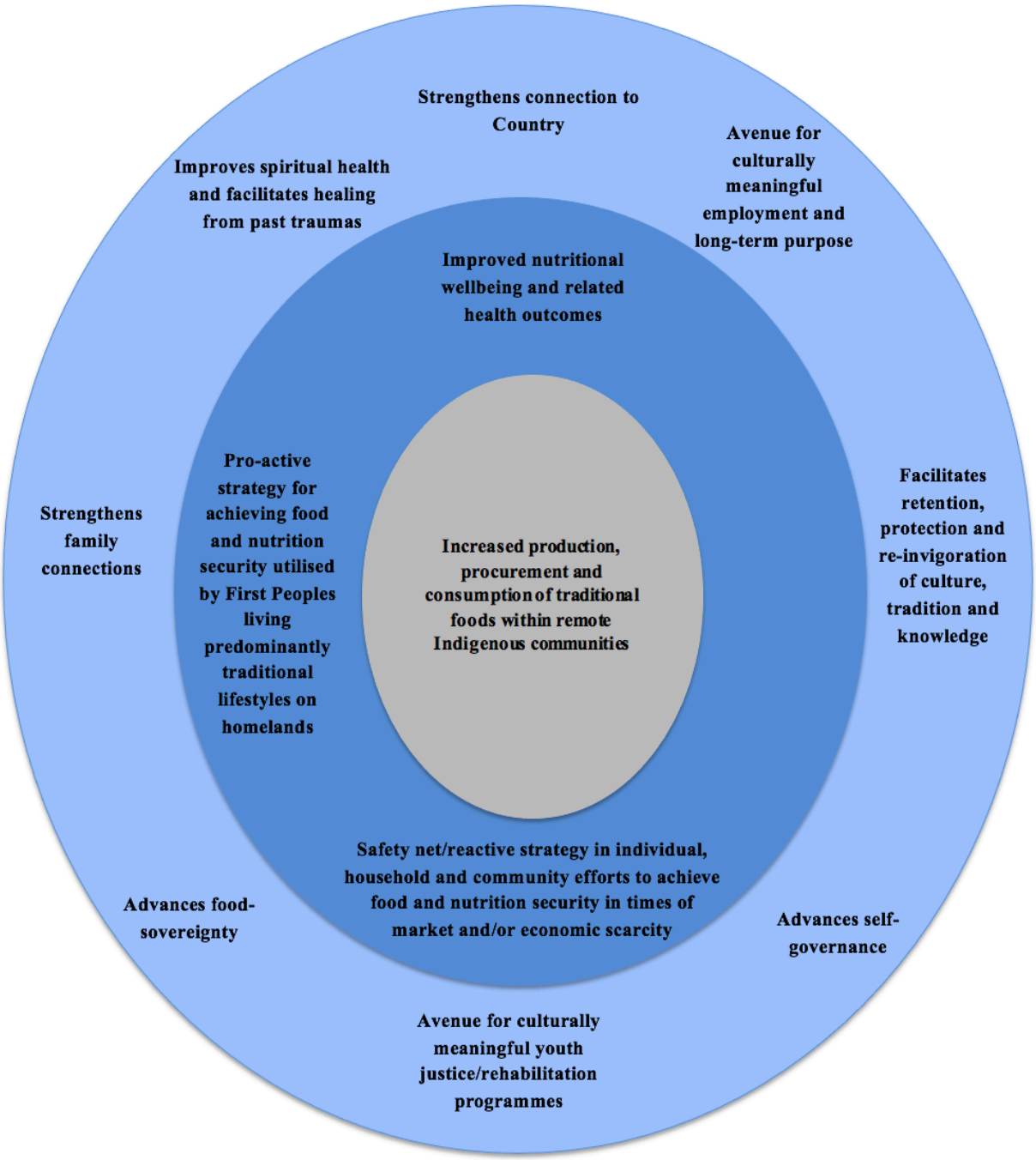

Figure 8.3: Benefits stemming from the increased production, procurement and consumption of traditional foods within remote Indigenous communities (Source: Author - adapted from Elliot et al., 2012, p. 4).

In fact, this case study reveals that all tiers of Australian government are crucial in maximising these promising opportunities. Many Indigenous communities believe external support is needed if these ventures are to develop and affect widespread change in food security, nutritional well-being and holistic community development, with widespread calls amongst the documents authored by *Aboriginal corporations, councils and alliances* for increased government funding and resourcing for these ventures (Apunipima, 2020; BAC, 2020; Miwatj, 2020; NSW ALC, 2020; Tangentyere Council, 2020; QAIHC, 2020). The inability of Maningrida Wild Foods to expand its operations due to a lack of existing infrastructure in the community, and its battle to meet food health and safety standards (BAC, 2020), provides a clear example of the barriers that could be overcome with the increased government resourcing of human and financial capital. These calls are echoed by Tennant Creek Elders Valda and Jakamarra, who noted the need for increased government funding and the development of community infrastructure. Whilst this study underlines that Australia's First Peoples aspire to utilise their existing capabilities in driving their own development, it similarly signals that in many instances, a helping hand from non-Indigenous Australia is required if these communities are to overcome structural factors that currently hinder the success and scope of Indigenous community-led operations.

Beyond increased resourcing, findings from this study highlight that Indigenous communities believe creating meaningful partnerships with non-Indigenous Australia is important in any effort to develop community-led operations involving bush foods and Indigenous knowledge. As Brian states, there is a pressing need to maximise mutual-learning opportunities and the sharing of knowledge between First Peoples in his community and mainstream Australia. Jakamarra presented an opportunity for putting this type of collaborative partnership into effect, suggesting that the town's IGA supermarket could sell bush foods procured by First Peoples on the surrounding homelands to townsfolk at wholesale rates. Jakamarra provides a blueprint for how the traditional food system of First Peoples and the introduced conventional food system could work in unison to support improved food security and nutritional well-being within remote Indigenous communities. This untapped opportunity would combine the nutritional benefit and cultural significance of a traditional food resource, with the convenience and accessibility offered by the township's conventional supermarket. At first glance, this brand of partnership seemingly undercuts some of the aforementioned benefits associated with purely Indigenous-led

community efforts, such as the advancement of self-governance. However, mirroring the assertions presented by academics including Dentzau (2019), Parsons et al. (2017) and Sillitoe (2006) (see Chapter 2), this interdisciplinary approach that respects and draws upon the inherent strengths of Indigenous and Western ways of knowing and being is perhaps, for now, the best way forward, acting as an intermediary stepping-stone in the ultimate journey of Australia's First Peoples towards self-determination.

However, this study reveals that calls from community Elders, such as Jakamarra and Brian, for increased community consultation, collaboration and the meaningful valuation of Indigenous aspirations, have rarely been reciprocated as part of the nation's efforts to amend food and nutrition insecurity within Indigenous communities. All four of the Tennant Creek Elders affirmed that government and other external organisations responsible for delivering food and nutrition related interventions in the community, regularly work in isolation from the perspectives of First Peoples. These claims are consolidated by the document analysis, which reveals that just one of the ten documents submitted by *state, territory and regional government bodies* as well as *non-Indigenous owned service providers and non-profit organisations* acknowledges the inherent value of drawing upon bush tucker and Indigenous knowledge as part of interventions within remote communities (Food Ladder, 2020). Critiques aimed at the federal government concerning its attempts to address the dire state of food and nutrition insecurity within Indigenous communities by the Australian National Audit Office (ANAO) (2014), Davy (2016) and Hudson (2010) (see Chapter 7), provide further evidence to triangulate these findings.

With the added support of the literature, results from this study signal that reaping the inherent potential of the traditional food system of First Peoples to support improved food security, nutritional well-being, holistic health and ancillary development outcomes within remote Indigenous communities, is undoubtedly undercut by the binary knowledge divide (see Chapter 2). Exhibiting strong links to post-colonial thought, Briggs (2005, 2014) and Parson et al. (2017) contend that the binary divide casts a heavy gaze of scepticism and criticism over the validity and accuracy of Indigenous knowledge, whilst Western science and worldviews are held up as the purveyors of universal truth. This research illuminates that this divide is reflected in Australia's food security and nutrition policy, programme and project landscape, which remains

immersed in a conventional food system built on Western knowledge and ideals, despite this system unequivocally failing First Peoples thus far. Clouded by bureaucracy and exhibiting a Eurocentric tunnel-vision of 'progress', government and many non-Indigenous organisations are all too often unwilling to form the type of meaningful partnerships with Indigenous communities that are built on deep consultation and the valuation of Indigenous voice. Subsequently, non-Indigenous Australia remains unable to acknowledge the multifaceted benefits of interventions built upon the traditional food system and food-related knowledge of First Peoples. Despite being some two centuries down the line, this hard-headed approach is reminiscent of early colonisers, who Boulton (2016) describes as incapable of comprehending the intricacies of a food system that provided the world's oldest living culture with millennia of holistic health and prosperity.

8.6 Closing Thoughts and Recommendations

As this research has illuminated, ingrained in the fibres of the traditional food system and the traditional food-related practices, cultures, and knowledge of First Peoples, is a wealth of potential for supporting food and nutrition security within remote Indigenous communities. However, whilst the interventions designed and delivered by Australia's mainstream structures remain divorced from Aboriginal and Torres Strait Islander peoples' unique ways of knowing and being, these potentials will remain untapped. As such, Australia forfeits the opportunity to drive the type of drastic change that is required to overturn the inadmissible state of food and nutrition insecurity within Aboriginal and Torres Strait Islander communities. Subsequently, the nation, once again, sidesteps the chance to progress its deep-rooted obligation to 'close the gap' in the health outcomes and life expectancy of First Peoples, disparities that food insecurity and poor nutritional well-being are extensively proven to underpin (see Chapter 1 and 3). This missed opportunity to affect potent progress is re-iterated by Briggs and Sharp (2004), Grenier (1998) and Sillitoe (2006). These academics assert that including the knowledge, concerns, and aspirations of Indigenous peoples as part of development interventions enhances the predominantly technocratic efforts of external parties, that are often devoid of context and thus incapable of fostering long-term development (see Chapter 2).

Yet merely ‘cherry-picking’ fragments of potential and power from the traditional food system of First Peoples, which offer technical solutions and augment outside efforts, would be to bypass a wealth of ancillary possibilities that emanate from the reinvigorated role of bush foods and food-specific Indigenous knowledge within remote Indigenous communities. Instead, there is an opportunity for government and outside organisations to set aside their stringently scientific conceptualisations of health, food security and nutritional well-being, and simultaneously support First Peoples to achieve their uniquely holistic conceptualisation of well-being. Including Indigenous knowledge requires mainstream Australia to work from a strengths-based perspective, whereby Aboriginal and Torres Strait Islander peoples are rightfully viewed in terms of their abundant agency and capabilities, rather than cast aside because of their perceived deficiencies. In supporting remote Indigenous communities to increase the size and scope of locally led ventures and to regularly draw upon their traditional food system as a proactive strategy for achieving food and nutrition security, Aboriginal and Torres Strait Islander peoples once again become active agents in their own prosperity and progress. Tennant Creek Elder, Valda, describes this future as, “our people helping our people.” Importantly, this future is congruent with the broader aspirations of Australia’s First Peoples to heal from a dark colonial past by reclaiming, rejuvenating and safeguarding their food-related cultures, practices and knowledge, and strengthening their connections with kin and Country. Therefore, as Aboriginal clinician Professor Ngaire Brown so astutely states, the restoration of culture and tradition not only acts as the pathway for progress but also constitutes “the reason *for* change” (Australian Government, 2013, p. 9). the opportunity for Indigenous communities to take culturally meaningful should not be understated, especially given that Aboriginal and Torres Strait Islander peoples have been divorced from their cultures and traditions, stripped of their sovereignty, and forcibly ushered into Australia’s social, economic and political margins over time. These assertions match those of academic advocates of Indigenous knowledge such as Gorjestani (2001, 2008) and Sillitoe (2006), who contend that including the unique knowledge, skills and agency of minority groups is not only a means of achieving impactful development interventions, but also in facilitating empowerment within these communities. Empowerment is not the final outcome however, but rather a building block in the ultimate quest of Aboriginal and Torres Strait Islander peoples towards greater self-determination. Alongside improved food and nutrition security, empowerment, increased self-governance and the fortification of culture are

vital in the efforts of Aboriginal and Torres Strait Islander peoples to achieve holistic health and well-being.

To conclude, a number of key recommendations are made based on the findings of this research, which are intended to inform interventions that address food insecurity and poor nutritional well-being within remote Indigenous communities. As the dire state of food and nutrition security within these communities is at its core a health issue, many of these recommendations echo the calls made as part of the 2018 and 2020 reports released on behalf of the Close the Gap Campaign Steering Committee (see Chapter 1).

Given the proven ineffectiveness of current government-led interventions aimed at tackling food and nutrition insecurity within remote Indigenous communities, there is a pressing need for future interventions to be built upon deep and ongoing consultation with Aboriginal and Torres Strait Islander communities. This thesis recommends that these interventions should be increasingly embedded in local context, respondent to community aspirations and respectful of holistic conceptualisations of well-being. As part of this shift in design and delivery, food and nutrition security interventions within Indigenous communities must recognise the food-related knowledge, practices, cultures, and traditions of Aboriginal and Torres Strait Islander peoples as potent pathways for affecting change at the individual, household and community level. Beyond this recognition, these interventions should strive to invest in the existing capabilities found within remote Indigenous communities. Accordingly, this thesis recommends the co-design and implementation of a national framework that provides funding and support inputs to augment the growth and success of Indigenous community-led bush food production ventures and ancillary programmes, projects and enterprise opportunities. In addition, there must be a greater acknowledgement amongst government and non-Indigenous Australia more broadly, regarding the historical and ongoing contemporary impact of colonialism on the traditional food system of First Peoples. Subsequently, government must make stronger efforts towards reconciliation, which should involve the support of Aboriginal and Torres Strait Islander peoples in their efforts to rejuvenate, retain and safeguard their food-related knowledge, practices, cultures and traditions. As proud Yuin woman Professor Ngare Brown asserts, “where systems facilitate this reclamation, protection and promotion (of culture), we are healthy, well and successful and our

communities thrive" (Australian Government, 2013, p. 9). Similarly, there must be a far greater national investment into research that seeks to better understand how Aboriginal and Torres Strait Islander peoples continue to draw upon their traditional food system in support of food security, nutritional well-being and holistic health, and how this can be translated into meaningful policy, programme, and practice. However, as has been reiterated throughout this thesis, food and nutrition insecurity within remote Indigenous communities can perhaps only realistically be amended by optimising the inherent strengths of both the traditional food system of First Peoples and the conventional food system in tandem. Therefore, alongside the aforementioned recommendations, a focus on creating equitable partnerships between Indigenous communities and non-Indigenous corporate, government and not-for-profit sectors is encouraged, in order to facilitate opportunities for mutual learning. Tennant Creek Elder Brian Tennyson succinctly highlights the importance of this type of partnership and two-way communication between Indigenous and non-Indigenous Australia, stating with great humanity, "we need to share our knowledge together. It's a starting point and it's a finishing point".

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