I just want to be myself:
Rethinking Pacific climate change adaptation

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Prologue

I talk about the moonbow I saw at night, in the middle of our vast ocean. This is good luck, they say, and we are lost in phenomena and ways of knowing the ocean that connects us. Ratu had told me that after our conversation that the 'Va' space between us had diminished. As I consider what he means, I walk through the Suva streets to the bus depot. It's so hot: I'm sticky and uncomfortable. The bus arrives and I clamber on, across the debris of paper bus tickets in the gutter; my too many bags getting in the way, thoughts shut out from the loud beats of the bus. A young girl stares. I smile, too keen. She waits. I turn and look out the window at the harbour clogged with wrecks and foreign ships. I look at the girl again and wait until the space between us opens. (Author's personal journal, 2018).

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Abstract

Climate change is now being presented as the biggest future threat to humanity. Many people living in the Pacific Islands are experiencing this threat through the extreme negative impacts of climate change without largely having produced the human-induced causes. The Fijian Government has brought this Pacific narrative to global attention and seeks to utilise additional funding and resources to support Fijians affected by climate change.

The 2010 Cancun Adaptation Framework mandates that adapting to the impacts of climate change must now receive the same priority as mitigating the rate of long-term global warming. One mechanism for delivering climate change adaptation in the Pacific is the mainstreaming of climate change adaptation into the Fiji Government's current concentration for progress in development. Responses to this concentration for progress are mixed: some consider that this strategy has and will deliver good results for Fijians, and some feel this strategy is incongruous with a Pacific way of thinking.

The ability to adapt to the impacts of climate change depend on the nature and level of development. This thesis contributes to discussion on the linkages between adaptation and development by exploring the question, 'To what extent do local community concerns, with regard to climate, inform adaptation policy and outcomes in Eastern Fiji?' The findings from five months of cross-context research in Fiji indicate that there is room for improvement in adaptation policy and outcomes so that the best features of the Pacific can be protected. A journey through Pacific ways of knowing and doing may offer guidance in how adaptation can be adjusted.

Key words: impacts of climate change, Pacific climate change adaptation, adaptive capacity, local development, community development, community-adaptation, Pacific epistemology.

Acknowledgements

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List of abbreviations

CAP	Climate Action Pacific Partnership
CbA	Community-based adaptation
CCA	Climate change adaptation
CROP	The Council of Regional Organisations in the Pacific
CSOs	Community service organisations
EbA	Ecosystems-based adaptation
FRDP	Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management 2017–2030
IPCC	Intergovernmental Panel on Climate Change
NAP	National Adaptation Plan
NDP	National Development Plan
NGOs	Non-government organisations
ODA	Official development assistance
PAFCO	The Pacific Fishing Company
PEBAC	Pacific's Ecosystems-based Adaptation to Climate Change Projects
PICS	Pacific Island Countries
SIDS	Small Island Developing States
SDGs	Sustainable Development Goals
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
USP	The University of the South Pacific

Glossary

Aotearoa (Māori word for New Zealand)

Bubu (grandmother)

Bula vinaka (greetings)

Bure (house)

I valavala vakavanua (Fijian protocol)

iTaukei (indigenous Fijian)

Kanaka Maoli (indigenous peoples of Ka Pae Aina O Hawaii)

Kavalagi (foreigner)

Lomani (care for, treasure)

Masi (cloth design)

Mātauranga Māori (traditional knowledge)

Moce (goodbye)

Mositi (connection to something that is deeply valued)

Noni (tropical seed)

Sala (fish)

Sevu sevu (Fijian welcome ceremony)

Tabu (forbidden)

Te Ao Māori (the Māori world view)

Talanoa (storytelling and listening with empathy)

Tukai (grandfather)

Va (the space between that relates)

Vaka (boat)

Vakarau ni se siga toka (prepare while there is still daylight)

Vale (family house)

Vanua (land and tribe)

Vanua sauvi (no-take zones)

Vinaka vaka levu (thank you very much)

Voivoi (plant used for weaving)

Yaqona / kava (Pacific Island crop traditionally used for ceremony)

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Chapter one: Introduction – *seeking new shores*

The title of this thesis, 'I just want to be myself", has many reflections. This title is part of a story from Jale, a Fijian I met in a small village in Fiji: Jale shared his desire to be himself as an expression of self-determination. This title also represents a desire for me to articulate my personal response to this research. Fechter (2012) argues that it matters that the personal and professional are interrelated. This relatedness between the personal and the professional is especially relevant as both the climate change adaptation (adaptation) and development sectors grapple with delivering relevant and effective support for those exposed to climate change impacts. There cannot be business-as-usual in the current climate change paradigm.

The context for this thesis is threefold: the impacts of climate change, the impacts of development, and where these two impacts intersect. The landscapes of climate change and development are inextricably connected: "Climate change risk is but one expression of a deeper social malaise in modern society" (Pelling, 2011, p. 3).

Communities are already finding it difficult to recover after extreme weather events such as cyclones, as well as slower events like droughts. How will they recover when the next category five cyclone strikes? As climate change adaptation is being mainstreamed into development, it must concern itself with the same opportunities and challenges that development faces. Additionally, if development is determined by the same exploitative processes that sustainable development is challenged with, where lays the hope for adaptation to produce different outcomes? Some say this hope lies in the desires and actions of local people. A growing body of frameworks and literature confirms that valuing and actioning these desires is a key to 'successful' adaptation:

> *There's a young man giggling beside me. But this is serious, a conference about climate change and the Pacific Ocean[1]. There are Pacific master navigators telling their stories with their bodies, in contrast to the flash PowerPoint presented now by a white science expert. He's talking about fresh access to water in Kiribati. The young man next to me is now shaking his head, still giggling. I asked him what is so funny, and he says to me, smiling, 'If you want to know the real Kiribati, come to me'* (Author's personal journal, 2018).

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[1] Pacific Ocean Pacific Climate: Pacific Climate Change Conference, February 21-23, 2018, Te Papa, Wellington, Aotearoa.

<u>Motivations for this research</u>

My own voyage for this thesis began in 2015 when I sailed around the South Pacific for six months with my partner, Dean, in our 46-foot yacht, *Pebbles*. We were tourists and I was in search of 'Pacific paradise'. We quickly realised we would need to rethink: Cyclone Pam had struck three months earlier and parts of the Pacific had been ripped from its roots. Some parts of Tonga had mouldy, flapping tents as houses and it appeared that some people had not yet recovered from Cyclone Ian, 18 months earlier. We whispered, "Why?" What then drove my curiosity was why communities had recovered from these cyclones so differently. In Aneityum, Vanuatu – the furthest island from the main port town of Port Vila – appeared to recover from Cyclone Pam relatively quickly. They relied on traditional fishing techniques and had buried coconut flesh, the texture of cottage cheese, into the ground in case a cyclone destroyed food sources above the ground.

I returned to Aotearoa-New Zealand (Aotearoa) with an uncomfortable enquiry to understand what I saw. This enquiry was uncomfortable because I knew it had something to do with the Pacific's colonial history as well with the history written on my own skin as I sought connection with people around the islands. I also had a sense that the answer for me personally was in the way the shores of Aotearoa were always touching the shores in the rest of the Pacific, and we were connected somehow. This gave me reason to be *with* the rest of the Pacific but not *of* it.[2] I enrolled in Development Studies at Victoria University and Professor John Overton introduced me to, amongst many other Pacific writers, celebrated Pacific academic, Epeli Hau'ofa. Hau'ofa's extraordinary 1993 essay *Our Sea of Islands* still resonates across all shores in the Pacific. The following quote had a lasting impact on me: "Only when we focus our attention also on what ordinary people are actually doing rather than on what they should be doing, can we see the broader picture of reality" (Hau'ofa, 1993, p. 12).

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[2] Thank you to Professor Warwick Murray for this inspiration.

Research aims

This thesis seeks to critically answer this central question: To what extent do local concerns, with regard to climate change, inform adaptation policies and outcomes in Eastern Fiji? To answer this question, the following sub-questions will be answered:

1) What is the climate change adaptation policy and approach landscape in Fiji?

2) In the two case-study localities, what were the main concerns, expressed with regard to climate change, in the context of broader development issues?

3) To what extent have adaptation outcomes met the locally expressed concerns in the case-study localities?

4) Based on the above, how might adaptation policy and processes in Fiji and the Pacific more generally be adjusted in order to meet local concerns?

5) How might a Pacific epistemology foster community-adaptation and local development?

By answering these questions, this research aims to contribute to a growing body of work on the linkages between climate change adaptation and development by investigating how adaptation is defined and delivered.

Also, this research aims to contribute to the mainstreaming of adaptation into development space by discussing the less visible impacts of climate change, without denying the physical impacts.

Another aim of this research is to contribute to debates on adaptation as an opportunity for development, by putting local development needs on the climate change agenda.

And finally, this research aims to offer space for *kavalagi* (foreigner) research and development support to be not *of* the Pacific, but *with* the Pacific.

Chapter breakdown

Sub-questions are explored in six chapters:

Chapter one – *seeking new shores* – discussed the research motivations and aims and then presented the research questions and chapter breakdown.

Chapter two – *plotting the course* – presents the methodology which introduces an original conceptual framework called Pacificscape. A photo narrative of Pacificscape then explores how development is currently viewed and also how it could be viewed. I also discuss qualitative methods of cross-context research and *Va* conversations, along with other research considerations. This chapter finishes with relevant dimensions of climate change adaptation that are outside the scope of this research.

Chapter three – *setting sail* – presents background to climate change, adaptation, development and the linkages between adaptation and development in the Pacific, and more specifically in Fiji.

Chapter four – *resetting the sails* – presents the results of locally expressed concerns from two case-study localities in the Lomaiviti District in Eastern Fiji.

Chapter five – *laying the anchor* – analyses and discusses the results. Discussion is supported by engagement with civil society in Suva as well as relevant literature. Content includes looking at the differences and strongest commonality between the findings from the two case-study localities. It then considers to what extent have adaptation outcomes met the locally expressed concerns. Lastly, this chapter explores how might adaptation policy and processes in Fiji and the Pacific more generally be adjusted in order to further meet local concerns.

Chapter six – *arrival* – summaries the analysis and discussion. This chapter then moves towards solutions by enquiring how might a Pacific epistemology foster community-adaptation and local development. This chapter concludes with further research enquiry and final thoughts.

Chapter two: Methodology – *plotting the course*

This chapter explains how this research was designed and implemented to reveal local understandings of climate change adaptation and development in Eastern Fiji. It introduces an original conceptual framework – Pacificscape – and explores how this framework has guided the research. This conceptual framework's originality reflects my desire to be myself in this research and therefore making a statement that social research, especially in development studies, can be creative and reflective. Pacificscape also aims to offer an alternative for developments' relationship with the Pacific and the environment through a photographic narrative and presentation of Pacificscape's characteristics. Two research methods – cross-context research and *Va* conversations – will then be presented. Other research considerations that justify choices made in this research will also be discussed. Lastly, relevant dimensions of climate change and adaptation that are outside the scope of this thesis are presented.

To begin, a 'research sitting point' is empathetic to a Pacific world view: "We sit when we, as a *vanua* (land and tribe) talk or *talanoa* (share) about matters of importance to the *vanua* …" (Nabobo-Baba, 2006, p. 48). Sitting also equalises space with others before you stand and lay claim to any agenda or discussion. Social (constructivist) ontology fits with my intention to start with this sitting point to explore whether adaptation policy and outcomes are informed by local concerns. This approach is appropriate when understanding Pacific peoples' interpretations of climate change and the development processes they may be interacting with, as it recognises that adaptation is a social process and not just a series of tools or resources (McNamara & Buggy, 2017). Not only is adaptation a social process, the interrelatedness of adaptation knowledge must be seen in its entirely and not just knowledge about crops and fish stock (McNamara & Prasad, 2014). In addition, a social (constructivist) ontology "cautions us to be ever suspicious of our assumptions about how the world appears to be" (Burr, 2015, p. 3).

Qualitative research methodology is appropriate because it strongly argues for:

> … the value of depth over quantity and works at delving into social complexities in order to truly explore and understand the interactions, processes, lived experiences and belief systems that are a part of individuals, institutions, cultural groups and even the everyday (O'Leary, 2017, p. 142).

Hau'ofa's quote about focusing on ordinary people[3] emphasises that qualitative research not only favours depth but also favours breadth when representing reality. Understanding the depth and breadth of local lives is vital when creating policy and outcomes for adaptation because a focus on hazards, instead of other long-term development concerns and root causes of inequality and inequity, depoliticises the challenges that people face (Kelman, 2010).

Pacificscape: a conceptual framework

A visual and practical conceptual framework called Pacificscape has been created for this research (see Figure 1). This framework identifies three elements that work together, equally, to guide this research. These three elements are the Pacific (represented by people, land and ocean); the environment (represented by the wind); and development (represented by a boat). These elements of Pacificscape need to not only be present but equal for policy and outcomes to 'sit', listen and be informed by local concerns. The characteristics of Pacificscape are postcoloniality, postdevelopment and reciprocity.

Figure 1: Visual application of Pacificscape. Designer: Laura Porter.

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[3] This quote previously appears on page 2.

Pacificscape is inspired by Karin Ingersoll's (2016) work on seascape epistemology which aims to produce knowledge for self-determination. In her book, *Waves of Knowing*, Ingersoll discovered her Hawaiian genealogy when her father, on his death bed, revealed his indigenous Hawaiian *Kanaka Maoli* (indigenous peoples of Ka Pae Aina O Hawaii) genealogy to her. This inspired Ingersoll to explore her identity through her connection with the ocean, as a surfer. She describes this as a way to connect indigeneity to the ocean by way of reflection and adaptation. While not all Pacific people have a connection to the ocean in contemporary form, Ingersoll argues that they do in their ancestral and physical history. It is imperative that this connection is recognised in policy and processes, so they can be informed by the needs and desires of local people. In this way, local realities are the sitting point for adaptation and its linkages with development and self-determination.

Ingersoll (2016) aims to "decentre the conversation toward independent and alternative ways of knowing and producing knowledge that allow for empowerment and self-determination within a modern and multisited world" (p. 3). While Pacificscape has similar contemporary self-determination aspirations to seascape epistemology, it differs because it recognises not only colonisation and neocolonisation as impacting forces, but also the significant impacts of climate change that are being felt in the Pacific. Further, Pacificscape sees these impacts as an amplifier for existing inequalities and concerns.

Pacificscape also draws on my own sailing experiences, especially my journey around the Pacific in 2015, and then from Aotearoa to Fiji in 2018 as part of this research. During the sail to Fiji, I had ample time to reflect on early research thinking in the eight-day sail to Fiji. I was also treated with great interest by the villages when arriving by boat. Fechter (2012) highlighted earlier that it matters that the personal and professional are interrelated. Chambers (1997) argues for development practitioners to be self-critical and to think through their actions. Additionally, Mafileo (2018[4]) highlights that practitioners are just as important as the frameworks and models they are delivering. For me, this included relearning values like love and sharing, as well as feeling awkward and overwhelmed:

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[4] From unpublished conference audio presentation

I don't know this hue of blue out here. Or these ocean swells. Nothing is the same, but this has been done before. This ocean is lapping both shores and soon I will arrive and sit. To unlearn (Author's personal journal, 2018).

The elements of Pacificscape: environment, the Pacific and development

The Pacific – people, land and ocean – is the first element of Pacificscape, represented by the ocean. The ocean links all aspects of Pacific life: past, present and future. People rely on the ocean for food, travel and retaining knowledge. Movement is fluid and shifts with the tides and wind. The future is determined by currents as well as the impact that humans have had on the environment, above and below the ocean. Waves retreat, attack and reveal coral and rock pools at low tide. Connections are formed or broken, lost or revisited, again and again. The ocean is nonlinear in structure: its ebbs and flows constantly create change.

The second element– the environment – is represented by the wind. Wind can blow a boat from one shore to the next, force coconut trees to the ground and drive sheets of roof iron into the ocean. It can also blow a boat from one Pacific country to another, connecting people and strengthening relationships. The wind determines the speed and direction of a boat. Wind can be dangerous, yet it can also disperse seeds for replanting and warn of bad weather through cloud formations. In Pacificscape, wind also represents changes in climate.

The third element of Pacificscape is development which is represented by a boat, or in the Fijian language, *vaka.* A boat combines ancient ways of knowing and voyaging, technology, and responding to the natural environment. While a boat represents technical ability, it must respect and respond to the natural environment to move and survive. The ocean is both an unknown hazardous space and a place of clarity: a skipper must navigate both.

Pacificscape's past will always have colonial roots through early European expeditions and therefore missionary influence in the Pacific: current development often still takes the form of imperialism and colonisation. However, Pacific voyaging and mobility existed thousands of years before imperial and colonial impact (Anderson, Binney & Harris, 2015). The vast and significant craft of sailing has informed and created Pacific culture for centuries.

Boats have always represented development in the Pacific. Since the end of the ice age, Pacific people have also adapted through sailing impact (Anderson et al., 2015). The significant development of the sail provided unlimited potential for change as people left islands, whether forced or voluntary, for new lands. The representation of a modern yacht in Pacificscape acknowledges that technocentric remedies must be founded on traditional knowledge, experience and contemporary desires.

Access by boat also creates a different perspective – a way of knowing – from the ocean looking to land. This perspective recognises relationships with the land and ocean as it intuits and analyses surroundings. Where is the reef entrance? Where is a safe anchorage? What might be destroyed when the anchor is dropped? Who lives here?

Characteristics of Pacificscape: postcolonial, postdevelopment and reciprocity

The characteristics of Pacificscape help to answer the research questions because as Young (2003) argues, no one can view the Pacific from a disinterested space. Young was referring to the past impacts of colonisation through occupation as well as its contemporary form. Pacificscape is inherently postcolonial because it aims to explore ground after the effects of colonisation, past and present. It is vital that research for the Pacific considers postcolonialism because the nature of research during the colonial era did not consider the unpleasant impacts during colonisation, only the pleasantness; absent were the practices of colonisation (Gegeo, 2018[5]). This Pacific scholar also states that research is knowledge constructed by certain persons at a certain time to deal with certain issues. Therefore, consideration for what is being experienced now is essential. Gegeo (2018) expresses this newness, living dually between tradition and modern, as "socio-ontological duality: co-existence of traditional and modern. It's here to stay, it's our new social-cultural ontology – the new Pacific.[6]"

Ingersoll (2016) argues postcoloniality as a way to "pull indigenous peoples away from the binary oppositions between the coloniser and the colonised; to minimise the 'otherness' from both sides" (p. 3). In this way, Pacificscape, like Ingersoll also suggests, is a way to re-establish place through relationships between place and

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[5] From unpublished conference audio presentation
[6] From unpublished conference audio presentation

knowledge. Pacificscape advocates for another space too, the production of a nonbinary reimagined space for postcoloniality – one that mirror's Salesa's 'indigenous times': "In the Pacific we live, now, and for any imaginable future, in indigenous times" (Salesa, 2014, p. 32). This Pacific way of knowing considers the past, present and future and argues that "indigenous Pacific ways, histories, languages stand not in opposition to other great forces at work in the present – postcolonialism, development, globalisation, commercialisation – but are articulate with them, as well as with a deep and resonant past" (p. 31). Salesa further argues that Pacific ways of knowing are not just a section of smaller histories within a larger context, but a dimension of their own.

The second characteristic of Pacificscape is postdevelopment. While the boat in Pacificscape represents development, the definition of development is challenged to counter hegemonic understandings, therefore taking on aspects of postdevelopment. The emphases on grassroots autonomy provides alternatives to hegemonic development (Escobar, 2011). This emphasis on local lives is a gateway to the personal nature of postdevelopment. Ireland & McKinnon (2011) argue that "in the case of adaptation, locality is especially important as the approach relies upon a global network of localised actions to prepare for the impacts of climate change can be explored" (p. 7).

However, as critics of postdevelopment argue, the 'post' can mean that alternatives did not always exist. Pacific people have always adapted to changes in climate and contact with outsiders and have always had their own epistemology that has informed their lives. This has included dealing with disasters as well as incremental change over decades (Bryant-Tokalau, 2018). In addition, local knowledge has always been used to protect environments.

The last characteristic of Pacificscape is reciprocity. Here, reciprocity is aimed to be a more active version of acknowledging the interconnections between the Pacific, environment and development. Reciprocity represents the existing and active relationality between these elements (of which adaptation is allied with). Reciprocity in this form discovers new possibilities:

> We need not imagine that climate change is entering from beyond Pacific
> worldviews as if they were somehow separate domains impinging upon or

having to adapt to each other. Reciprocity is an important principle and social mode: it involves a sophisticated aptitude for discovering new possibilities in resources of all kinds, and an equally adept skill in accepting external interests and turning them into home-grown initiatives (Rudiak-Gould, 2018, p. 2).

Pacificscape does not consider the current reciprocity dynamic between ocean, people, land and development as equal in adaptation. For it to be equal, adaptation must privilege a Pacific way of knowing to equalise reciprocity between Pacificscape's elements. With the current 'thrust' for progress in Fiji (which will be discussed in chapter three) as the context, Pacificscape priorities the Pacific and their connections with changes in climate as well as changes in culture.

A photographic narrative of Pacificscape

Figure 2 and Figure 3 offer a photographic narrative of how Pacificscapes' elements currently operate in development. Figure 4 then offers an alternative to this narrative. These photos were taken on route from Aotearoa to Fiji in May 2018.

Figure 2: Pacificscape: Development dominates the space.

In Figure 2, the boat (development) dominates the space. Here, the crew member (likened to a development practitioner) overrides the valuing of the natural environment by placing himself as the main focus of the photo. The ocean and weather are merely a backdrop for the crew's ego, disregarding the safety of the boat, himself, other crew and vessels in the ocean. He is not aware of altered cloud

formations and gusts of wind and so may be ill-equipped to respond when circumstances do change.

In Figure 3, the technical ability of the boat is seen to harness and control the clouds. Here, the boat favours its own structural connections and not connections with other elements. The narrative can only be drawn to the central presence of human-made structures which have the potential to not only dominate but also exploit the environment and those who rely on it. The wind gauge at the top of the mast and the electronics that run down the mast enable the boat to be navigated from inside the cockpit. The skipper does not need to look at his surroundings if she or he chooses not to. Many boats move through the ocean without awareness, until they hit danger which forces them to take appropriate action.

Figure 3: Pacificscape: Technocentricity dominates the space.

Figure 4 offers an alternative focus for development's relationship with the Pacific and the environment. Here, development is a small part of the landscape. It can offer scientific expertise and stability when invited to do so but the other elements do not rely on this for survival. Also, the skipper of the boat is unseen yet is still guiding the voyage. By considering all elements of voyaging, the boat can be responsive to tide, swell, wind strength, rain and its own impact on the ocean. It can utilise digital navigation charts yet lets the Pacific people and environment lead. This reveals other ways of knowing and doing which allow the skipper to respect vast, unknowable space. Conversations are without agenda and hours are spent in silence, listening,

responding and reflecting. What is not said is as important as what is said; there other spatial or temporal places to visit.

Figure 4: Pacificscape: An alternative focus for development.

Methods: cross-context research and *Va* conversations

This section will present the qualitative methods of cross-context research and *Va* conversations.

Cross-context research

I wanted a method that could be responsive to extended field research so that ordinary lives could predominately inform the research findings. Academic and artist Risha Nagar (2018) argues for research that is responsive and involves unlearning and relearning through direct experiences. My direct experiences were achieved through a cross-context method that involved living in Fiji for nearly five months from 6 June to 17 October, 2018.

A cross-context method has allowed the research to be influenced by two different landscapes and environments: I wrote a first draft of early chapters from Victoria University of Wellington in Aotearoa. After arriving in Fiji, I did not 'save as' my draft from Aotearoa, choosing to begin again with Fiji as my predominant influence. The conversations and discussion chapters were written from this perspective which included having desk space at The University of the South Pacific (USP) in Suva. When searching for material, Pacific writers and academics were favoured over non-

Pacific academics. Cross-context research allowed me to attend many conferences and presentations including the Climate Action Pacific Partnership Conference; a poetry reading by Pacific poet Sia Figiel; an address by the Prime Minister of Papua New Guinea on Pacific regionalism; and a 25-year celebration of Epeli Hau'ofa's *We are the Ocean* work at USP. Other experiences that have informed the work from a cross-context method included activities like planting mangroves with the National Council of Churches and sharing lunch and stories with post-grad students from other Pacific Islands.

Cross-context research has also allowed me to be open to where 'data' comes from, as can be seen in Figure 5. In Aotearoa, I doubt I would have attended church like I did in Fiji or used modes of transport as research. Grey literature can be anything that evokes a response: rubbish in the ocean, discovery of a local water hole, and shoeshine boys wanting business (who were often men in their 40s and 50s). Knowledge through this method is fluid and ever changing. Ingersoll (2016) expresses knowledge as becoming an emerging process, "born from the movements of bodies affected by places, which can be engaged for specific purposes, only to be readjusted by more movement" (p. 154).

Figure 5: Fiji 2018 election political billboard.

This range of experience has helped understand the context in which local people live. If research informs policy, then a cross-context method of direct local experiences aims to make policy relevant:

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The women are hanging out together on the beach, watching the sun go down. Suddenly, a woman jumps up and pretty much throws her baby to me. She then rushes, with her fishing net, to join the other women at the edge of the sea. Hundreds of sala *(little fish) are jumping out of the water and the women stalk along the water's edge. The baby got such a fright at being flung to me that she starts crying. The Mum indicates for me take her baby away, so I take her around the back of a house. I try to distract her by making a funny face, but she reaches her little hand out towards the beach and whimpers. We go back to the beach and it's a different scene. The women have resumed their lounging positions as if nothing had happened. Teasing is a sign of affection here and the baby's mum tells me I was getting fat. She keeps pointing to my biceps and saying, 'bun or bread?' I don't really know what she means but I flex my muscles and say, 'bun.' She laughs, even though there will be no protein to eat tonight.* (Author's personal journal, 2018).

The use of a personal journal was used to cope with a cross-context method because of the extended field research time away from home. This personal journal helped deal with the richness of experience and isolation I sometimes felt because of limited cell phone or internet communication. Autoethnography is not used as a method as such, but because every day felt like research, I had to deal with the overwhelming drive to make sense of my surroundings. A personal journal also allowed me to respond and cope with the emotional nature of the research. It was this kind of learning, with the heart as well as the mind (Nabobo-Baba, 2006) that has had a resounding effect on this research as well as me personally. Sometimes this learning involved just listening to the local drums that called people to church as I was having a cup of tea on the deck of the boat.

Writing creative non-fiction has always been my way of reaching into experience and drawing out meaning. This is a method that I often adopted for my personal journal. It is important to listen to what is not said and write what is not written (L.De la Torre Parra, personal conversation, April 11, 2018) and a personal journal is an ideal tool for this. While creative fiction is useful in documenting research (Denzin, 2008), I have found that the creative experience of retelling true experiences using sensory, personal and emotional reflections is useful in recording, deepening and reflecting the experience. As in all storytelling, it is the non-verbal dimensions of an event or moment that can create lasting and transformative experiences.

Finally, a cross-context method led to documenting the research journey in different ways to represent the transformative experience that the research offered. This included filming a series of 30-second videos on my phone from different places and editing them into a five-minute video. This series allowed me to connect with the natural environment in a new way, thus deepening my understanding of how people were connected to their environments. These videos also allowed me to notice the relationality between nature, land, ocean, animals and people. This relationality is always subtly changing, evolving, and allows for opportunities for what is not visible to be visible, and what is not said to be said. Please take the time now to view these videos as an integral part of this thesis. The video is called *Pacificscape audio visual expression* and the link is https://youtu.be/dLN-HodoMT0. If you do not have internet access, please go to Appendix A on page 137 for an image snapshot narrative of the video.

Va *conversations*

The second method used in this research is *Va* conversations. These took the form of in-depth, hardly-structured interviews to gain deep understandings of what local people are concerned about. This research included 42 *Va* conversations (see Table 1).

Table 1: Va conversations in Fiji, June-September 2018

VA CONVERSATIONS IN FIJI: JUNE-SEPTEMBER 2018			
Island	City/town/village	Male	Female
Viti Levu Island	Suva city	6	3
Ovalau Island	Levuka town	2	2
	Bureta village	1	1
	Arovudi village	2	2
	Taviya village	4	2
Gau Island	Nawaikama village	2	16
Total			42

For a gender and breakdown of *Va* conversations, see Appendix B on page 147. Methods similar to in-depth interviews allow the person being interviewed to tell their story in their own words, using any expression they desire (Morris, 2015). Most conversations with civil society were digitally recorded, but at the village level, only

two were recorded in this way. Using a recording device versus pen and paper (or not recording in any form) in a village environment changed the dynamic of connection from friendly to uncomfortable.

Time and place of *Va* conversations were often serendipitous and always casual. They mostly took place in ordinary spaces: a *kava* session or tour of someone's garden (see Figure 6), for example. *Va* conversations were often numerous over a week or sometimes months with the same person, allowing trust, rapport and connection to develop. *Va* conversations also bring the details of peoples' lives.

Figure 6: Joining Rupeni in his garden, Arovudi village.

Talanoa, a conversation-based method, was suggested as a methodology early in the research. *Talanoa* is a Pacific decolonising methodology that uses stories, emotions, empathy and lived experiences to present realities (Farrelly & Nabobo-Baba, 2014). However, this method never felt comfortable to me because it is perceived as an indigenous method and one I did not feel I could fully represent. *Talanoa* has intentionally not been chosen in recognition that:

> … talanoa research is in some ways in danger of reinforcing the mind/body, nature/culture dichotomies inherent where they do not meaningfully apply. Emotions, body, society, and environment, should not be so easily disconnected just because it best fits with non-Indigenous scientific rigour (Farrelly & Nabobo-Baba, 2012, p. 6).

Learning through refusing is also a method in itself, as Nagar (2018) argues. By rejecting *talanoa* as a method, I am navigating my own unchartered waters while being respectful to a Pacific way of being. Instead, *Va* conversations are informed by the principles of *talanoa* of empathy, respect and open-ended conversation-based engagement. *Va* is the space between – not empty – the space that relates, "that holds separate identities and things together in unity-in all, the space that is context, giving meaning to things" (Wendt, 1999, p. 402). *Va* conversations require listening and then letting talk flow without the agenda of even a semi-structured interview. This helped create a third space, of being *for* the Pacific but not *of* it.

Another principle of *talanoa* that has informed *Va* conversations is expressed as the researcher placing themselves in the research (Mafileo, 2018). Conversations can also include exchanges that are non-verbal (Feldman, 1999) and some V*a* conversations in this research had few words, as the following journal entry and Figure 7 demonstrates:

Figure 7: Calling the chicken, Taviya village, Ovalau Island.

> *The chief is shaking a plastic bottle of rice to attract the chickens. We're sitting on the grass outside his house, with his wife and another elderly woman. It's cloudy, I hope it rains. They are chatting away in Fijian, with the*

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odd word in English, and I like it that this feels okay. It's been a while – I don't know how long, my sense of time is relaxing – and then the chief looks straight up at the sky: 'Bad weather, soon', he says. We all stare at the clouds, then back to the chickens. One is running away from the group. The chief shakes the rice bottle again and it runs with the other chickens toward us. I stay awhile (Author's personal journal, 2018).

This looking and listening echoes the work of PhD student De la Torre Parra who is creating space for non-indigenous to support indigenous: a third space. She considers conversations as part of this third space: first to present yourself to people, then look, listen and talk (L.De la Torre Parra, personal conversations, various, 2018).

Va conversations can also allow a visual and emotional texture to what is being said, as it allows for stories to be told. Sometimes stories often felt like a diversion, but I always remembered them over theory and facts. This required intimate listening, which can be seen as a practical art that connects people to a specific spiritual and physical place (Carbaugh, 2014). *Va* conversations are also an interesting way to exercise reflexivity in the research, as conversations can happen anywhere and in a variety of situations:

> *A chicken has clucked its way into the room. It is being chased by a small boy wearing a t-shirt with the Fiji flag on. The chicken runs out and the puppy with the injured leg is chewing my consent form. A toddler has walked into the room and is staring at me. Her little face screws up and begins to shriek. Aunty comes in and asks if I want more bun. The church choir sings next door and somewhere else someone is yelling in frantic Fijian. We haven't talked about my topic yet. We probably won't. It is just another typical* Va *conversation* (Author's personal journal, 2018).

While this research seeks to enquire what people's concerns were, the word 'concern' was not always a line of enquiry. *Va* conversations were free form, allowing people to talk about whatever they wanted to. Most people did not walk around thinking, "What am I concerned about today?" I do not wish to present people as complaining or predominately negative.

Terminology, selections and positionality

Throughout this research, the word 'participant' has been replaced by the word 'person' and more than one participant has been called 'people'. The reason for not using 'participant' is that it infers a distant, unequal and neocolonial relationship. In

this relationship the participant appears to be there to solely serve the purpose of the researcher. In qualitative research, a research participant has also been called a human subject, study participant, or experiment. Regardless of the term, the intention for the word is for the person to be the target of research instead of having a more meaningful role in it. Alternatives have been put forward like co-author or contributor, but these do not comfortably match the intention of this research, especially in a village setting. There are research methods that counter this, such as those that favour participatory methods like participatory action research which seeks to equalise the researcher-participant relationship. However, even when this has been achieved, those involved in the research are largely segregated by the terminology of researcher and participant in the written application of the research.

I wanted people's experiences to be meaningful, or at least fun and engaging. Research often felt like friendship (see Figure 8), family, hospitality, and in some cases, a sense of love (receiving and giving). I was *kai Taviya* (from Taviya) in the village of Taviya, largely because of going through a *sevu sevu*[7] ceremony and staying for over a week. I experienced this ceremony as a custom that dissolves lines of insider/outsider to became 'of' the village. To call people participants after a *sevu sevu* ceremony and after sharing every day experiences in the village did not feel appropriate, ethical or responsible. I have also used first names when referring to people in the research in chapter four (*Va* conversations). The same approach has been applied to the word 'data' and this word will now be replaced with 'conversation/s'.

People were chosen from purposeful sampling and snowballing. Purposeful sampling selection method is "widely used in qualitative research for the identification and selection of information-rich cases related to the phenomenon of interest" (Palinkas et al., 2015, p. 534). Snowballing was most effective in a village environment where relationships were formed from involvement in everyday activities. Identifying key individuals and organisations from civil society who related to the research topic were also used. These were organised after arrival in Fiji, usually on the phone or face-to-face. Email requests proved to be the least effective way of connecting with people.

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[7] *Sevu sevu* is a traditional *iTaukei* ceremony of welcome for new visitors.

Ethics approval was received for both interviewing and photography. People were given an information sheet (see Appendix C) and consent form (see Appendix D).

Figure 8: Friendship between Salote and I.

Positionality: Bula, bula; moce, moce

> *What the hell am I doing here? It's nap time and the three houses that I have made connections with are napping. I walk back to the beach and see a thin, elderly woman making* voivoi *(mat) under a tarpaulin cover outside her house. She lifts her arm and waves at me.* 'Bula' *she says, and I say* 'bula' *back. I start walking towards her. She yells,* 'moce' *(goodbye) and her wave changes to something more urgent. I say,* 'moce *back and in the same breath, quickly turn around and walk towards the beach. Even the little puppy with the injured leg doesn't want to be with me. He'd rather chew on a rotting coconut. I call Dean on my VHF and ask him to pick me up in the dinghy. On the boat, I further freak myself out by reading Linda Tuhiwai Smith's* Decolonizing Methodologies[8]. *Then it dawned on me: What if I had misheard that woman and misread the signs? What if she was inviting me in?* (Author's personal journal, 2018).

This story shows the insider/outsider dance and my own comfort and discomfort. It is also a reflection of how *Va* conversations will always be partial, because of my positionality. Will I ever really know what my impact on the people in the research is? Beyond this, what was the impact that I was having on the people who did not wish to engage with me, like the woman who waved at me? An awareness of decolonising methodologies often felt like halting the research but also helped to narrow it. I wanted to be gentle in my selection of who was to be part of the research,

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[8] (Smith, 2012).

letting the lead come from them. This was useful as a cross-context method presents many opportunities and challenges.

In the beginning of this research, I experienced 'cultural paralysis' which is expressed by Donnell (1995) as: "It might not be an exaggeration to suggest that postcolonialism has unwittingly become its own nemesis" (p. 101). Donnell offers a way out of this 'paralysis' towards a more ethical possibility for postcolonial studies – the opportunity to tackle the difficult political questions.

Research locations

Figure 9 shows the Lomaiviti District in Eastern Fiji, and the two research localities of Ovalau Island and Gau Island. I wanted to visit more than one locality, so I could obtain a broad spectrum of whether adaptation is informed by local concerns.

Figure 9: Research localities in Lomaiviti District. Source: Base map, Google Maps.

Transport and accommodation were provided by my own yacht, with my partner Dean as the skipper and support. However, access by way of boat also limited which islands could be included as there had to be safe anchorage near each village. My locations were chosen from a mix of opportunity, fascination and chance encounters. I first chose Fiji because of my previous meaningful experiences there, and the myriad of both climate change and development impact discourse in the country. The island of Ovalau was first chosen because of two personal contacts there. The town of Levuka on Ovalau island also appealed because it appeared to have a

different experience of adaptation than the villages on the island. While some conversations from the different villages on the island of Ovalau have been merged in analysis, each village had its own unique experiences of adaptation, development, natural resources and the reciprocity between: "Each village has their own tree, fish and bird. This village [Taviya] has breadfruit, *sala* and *vodra*" (Rokowaqa, personal communication, August 16, 2008). This is relevant because the scaling up of projects can often miss dimensions, local traditional knowledge and practice. Local understandings are needed so adaptation can be locally relevant.

Finally, the island of Gau was chosen after being invited there during a conversation in Suva with Associate Professor Joeli Veitayaki. In the spirit of reciprocity, I asked him what kind of research he would find useful for him. He suggested I talk to the women in the village about a project he had been instrumental in delivering, that of a local sustainable development and adaptation project for over 20 years called Lomani Gau. This project will be discussed later in this thesis. A shorter version of this thesis will be given to the Lomani Gau Committee to assist their audit process.

Protocol

The process for gaining a research visa and other permissions was lengthy (nearly seven months), expensive (FJD632) and often frustrating. This involved first obtaining permission from the Ministry of Education, Heritage and Arts before securing a Research Visa with the Ministry of Immigration. I also applied for and received official approval to conduct research in Fiji from the Lomaiviti Provincial Council when I first arrived in Ovalau. However, I did appreciate that Fiji was protecting how outside researchers engage in Fiji, especially with rural *iTaukei* (indigenous Fijians). Access to these communities involved confirming my own connections with the *turaga-ni-koro* (head man) of each village, and then followed by with my approval from the Lomaiviti Provincial Council. I also had a letter of recommendation and permission for the district office on Gau Island, from Associate Professor Veitayaki. This letter, amongst other things, vouched for my participation of *I valavala vakavanua* (Fijian protocols and acceptable values and behaviours). These protocols must be considered before entering a village and includes bringing *yaqona (*a culturally significant root crop which is harvested and then ground for a *sevu sevu* ceremony).

Analysis

Conversations were informally compared using a two case-study approach of the research localities and were analysed using a thematic content analysis. Key quotes from locally expressed concerns were prioritised to ensure local voices led the analysis. This was an iterative process and I wanted to make sure I represented people well. Aotearoa playwright Victor Rodger uses his own version of a litmus test when writing of a different culture: "Would you be comfortable reading out what you've written about another race, culture or group of people in a room full of those people?" (Rodger, as quoted in Brooks, 2018, para 2). Rodgers' litmus test strategy was used throughout the writing process.

Limitations

Mainly women were interviewed in the village of Nawaikama on Gau Island so analysis is gender biased. It may also be a limitation that my line of enquiry in Nawaikama focused on people's understandings of the local adaptation project of Lomani Gau. Conversations on Gau were organised by the *turaga-ni-koro,* therefore the research may be influenced by this type of selection. All conversations were in English in all locations and so this may have excluded those who wanted to participate if conversations were conducted in Fijian. Even those conversations in English meant "whole worlds will remain unexplored, misinterpreted and, ultimately, poorly conveyed" (Murray & Overton, 2003, p. 3-4) because of our culture differences. This limited understanding was expressed to me by Salote from Arovudi Village as, "There is a lot behind the '*bula*' smile" (S.Manu, personal communication, August 10, 2018).

Research that went awry

My research did not always go to plan. Participatory photography was originally intended to be a significant part of this research, and was included in the ethics approval process, but this method was later discarded:

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Six weeks in, I realise I cannot do participatory photography here. It feels extractive. How can I possibly ask people to take photos of the very thing that they may still be traumatised over? I will focus on conversations, so I can engage through friendship and feel good about being here. And relax! But I've already given two cameras out because two kids saw me with them. I said, 'take photos of whatever you want. Today I have untold pictures of pigs, dogs, gardens, family relaxing on mats, large cooking pots and people posing. Tomorrow we will use the printer on the boat and print all the photos and give them out. Kalisi said the photos could be put in the church, which is also the community centre since Cyclone Winston blew the roof and windows off the church. So maybe I am doing participatory photography, badly, disguised as reflexivity, and causing more harm that if I had done it properly in the first place. Sigh (Author's personal journal, 2018).

Murray & Overton's (2003) point that research "may have to be prepared for some walls to falter and buckle as the ground shifts during construction" (p. 3) was true in my decision not to execute participatory photography as a method.

Dimensions of climate change that are outside the scope of this research

As climate change adaptation is a complex and multidimension field of study (especially as it considers its linkages with development) many of these dimensions are outside the scope of this thesis but are important to acknowledge. These dimensions include: the relocation of communities as adaptation; voices of Indo Fijians (Fijians who are of Indian descent); considerations for Fijians living in urban areas in Fiji, especially informal settlements, which is an area "crying out for attention" (V.Naidu, personal communication, July 11, 2018). Finally, the 'prophetic' and understated role of the church in adaptation is a crucial element, including the significant work done the Council of Churches in the Pacific (Council of Churches in the Pacific, 2010).

Summary

This chapter outlined the research design. It presents a culturally receptive methodology of Pacificscape as a conceptual framework which was inspired by Ingersoll's Seascape Epistemology (2016) that aims to decentre hegemonic ways of knowing for self-determination. Qualitative methods of cross-context research and *Va* conversations reflected both expressing an extended field research period as well as the desire to be culturally reflexive in this research. *Talanoa* was rejected as a

method, however, the expression of *talanoa's* decolonising methodology principles of empathy and stories have informed *Va* conversations.

Chapter three: Background – *setting sail*

The primary aim of this chapter is to investigate the sub-question, 'what is the climate change adaptation policy and approach landscape in Fiji?' This chapter integrates background information and a review of the literature to provide context for climate change, climate change adaptation, and the linkages between adaptation and development. Lastly, this chapter considers the role of local voices in adaptation.

Climate change's significance, mechanisms and impacts

The climate alarm has been raised for over 30 years, partly due to the Intergovernmental Panel on Climate Change (IPCC) published assessment reports on climate change (Harvey, 2018). The first IPCC report in 1990 presented the role that greenhouse gas emissions from human activity play in global warming and predicted a temperature rise of 0.3 degrees centigrade for each decade of the twenty-first century. This human impact on climate change is referred to by the United Nations as "anthropogenic, resulting from or produced by human activities" (United Nations, 2018). It is widely accepted that projected changes to the climate will be predominantly human induced (IPCC, 2013).

For many years, the de-facto target for policymakers was limiting global warming to no more than two degrees above pre-industrial levels (CarbonBrief, 2018). The latest IPCC special report on the impacts of even a 1.5 degree rise in global warming has further raised already urgent and intense global action on reducing the impacts of human-induced climate change (Matthews, 2018). These impacts include a further 90 percent loss of coral reefs, extreme weather events becoming more prevalent, and over ten million more people impacted by sea level rise (CarbonBrief, 2018).

From a development perspective, climate change is emerging as the greatest threat to development in recent decades (Vaiki, 2015), especially cultural dimensions of lives and livelihoods (Adger et al., 2013). This threat will continue to significantly affect those who do not have the resources to adapt to the impacts of climate change the most. Nursey-Bray and Palmer (2018) highlight that indigenous people will be disproportionately affected by the impacts of climate change. Climate change threat

is especially felt in rural areas as it threatens food security, agriculture, and rural livelihoods for billions of people right across the globe.

The mechanisms to deliver climate action are determined by the global agreements of 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 2015 Paris Agreement. The other global framework significant in climate change is the Agenda for Sustainable Development 2015–2030 which was developed by the United Nations Development Programme. This Agenda produced the Sustainable Development Goals (SDGs), a collection of 17 non-binding goals that aim to "mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind" (United Nations Development Programme [UNDP], 2018a, para 2). There are also human rights-based frameworks that influence climate action including those who represent the rights of indigenous people. The UNFCCC's Local Communities and Indigenous Peoples Platform (LCIPP) is just one example. The Executive Secretary of the UNFCCC declares that "indigenous people must be part of the solution to climate change … [this] recognizes your role in building a world that is resilient in the face of climate impacts" (Espinosa, 2018, para 1).

<u>The Pacific context</u>

The Pacific is significantly impacted from the effects of climate change, largely because of their proximity to oceans and therefore the influence of sea level rises (COP23 Fiji, 2018). These impacts create unsustainable communities, infrastructure and population. Aspects of Pacific Island countries which expose them to climate change impacts are their limited natural resources, openness of their economies, high growth rates and limited funds (McCarthy et al., 2001).

Politically, the profile of how the Pacific has been impacted by climate change was given a boost in 2017 through the Fiji Government's COP23 presidency[9]. Through his Presidency, the Prime Minister of Fiji Josaia Voreqe (Frank) Bainimarama encouraged Pacific Island countries to be more outspoken and vocal about their responses to the climate change impacts they face (Bryant-Tokalau, 2018). One

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[9] COP23 is the annual Conference of the Parties of the UNFCCC.

mechanism for raising this profile has been through *talanoa* (storytelling) delivered globally through the 2018 Talanoa Dialogue Platform. *Talanoa* is a Fijian cultural theory and practice of sharing stories and building of empathy and trust as a vehicle to build empathy and to make, "… wise decisions for the collective good" (UNFCCC, 2018, para 1). This platform gave civil society an opportunity to *talanoa* to Pacific and other world leaders at the second Climate Action Pacific Partnership within the COP23 framework.

Pacific people have a strong sense of identity and connections to changes in their local environment and surroundings (McNamara & Prasad, 2014), so effects of climate on everyday lives are considerable. As climate change impacts worsen, Fiji will experience greater extreme events such as floods, droughts and more intense cyclones. Fiji, like other Pacific Islands, is also experiencing significant coastal erosion and retreat of mangroves. Fiji's *vanua* structure holds deep expression of the connections between people and land: "Our name is written on the land" (A.Waqetia, personal communication, July 16, 2018).

This profound connection that Pacific Islanders have with their local environment is further expressed through metaphors by Falefou (2017):

> Tuvaluans' conception of sense of place is one that has very strong connections and attachment to their fenua or island or land like the 'coconut roots' to the soil. However, Tuvaluans, like other Pacific islanders, are also voyagers and great explorers who have traversed the Pacific oceans for centuries like the 'coconut fruits' that can drift in the ocean for long periods and become established once washed ashore (p. iii).

Hawaiian academic Dr Kapua Sproat (2018) offers that identity and survival of Hawaiian people, which includes the protection of the natural environment, is entrenched in a Hawaiian world view. Literature written from a Pacific epistemology using visual metaphors, like those from Falefou and Sproat, are fewer than those written from either a technocentric or outsider perspective. This questions what is informing solutions that address the impacts of climate change in the Pacific.

Despite experiencing some of the worst effects from climate change, Pacific Island countries have contributed a negligible amount to climate change and are under-resourced to appropriately adapt (Maclellan & Meads, 2016). Governments, organisations and individuals around the world who support them are demanding

they be provided with resources to deal with the consequences on their own terms (Kelman, 2010).

Life before and after Cyclone Winston

A significant and continuing impact from climate change and an example of the reciprocity between people, land and ocean can be seen after the devastation after Cyclone Winston in 2016. This category five tropical cyclone damaged much of Fiji, affecting 30,369 homes (Ministry of Economy [MOE], 2016). This cyclone is on record as the most intense tropical cyclone ever in the Southern Hemisphere. Further, Cyclone Winston was so strong – 230kmh – the upper limit in a category five cyclone. The impact of Cyclone Winston led to the substantial loss of lives, livelihoods and infrastructure, and reduced economic growth from 3.8 percent to 1.3 percent with rehabilitation costs still on-going (Mansure et al., 2017). Post-cyclone village-level assessments reported losses in fishing, boats and postharvest gear alone to the value of FJ$2,964,139 across six provinces (Chaston et al., 2016).

One of the worst affected areas from Cyclone Winston was the geographical region of Eastern Fiji, the Lomaiviti District, which is the research location for this research. Most houses in the village were damaged after Cyclone Winston, as well as one of the main income earnings for the village – *yaqona* crops. Many people involved in this research refer to their lives as, 'before or after Winston'.

Adaptation: an equal response to mitigation

Global adaptation policy has risen rapidly to prominence, guided by the UNFCCC's Paris Agreement and the Cancun Adaptation Framework. Under the Paris Agreement, of which Fiji is a signatory, there have been two main responses to climate change: mitigation and adaptation. Fiji also became a signatory to the non-obligatory Kyoto Protocol to the UNFCCC in 1998. Global planning for climate change has been dominated by concerns for mitigation of global warming but the tide turned in the last decade to an equal focus on adaptation. The UNFCCC's 2010 Cancun Adaptation Framework affirms that adaptation must receive the same priority as mitigation. (UNFCCC, 2010). This framework also affirms that

adaptation must be created by local context and implemented with the effective and full participation of indigenous peoples and local communities.

Before the 1990s, adaptation was mainly related to Darwinian theory of evolution and with that the process of natural selection (Schipper & Burton, 2009). In later years, the word has been associated with coping with natural disasters, 'vulnerability' reduction and more recently, resilience. Adaptation has been defined by the IPCC as, "In *human systems*, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects" (Matthews, 2018, para 8). Various types of adaptation can be distinguished, including anticipatory, autonomous and planned adaptation.

The global goal for adaptation, according to the Paris Agreement, is to enhance "adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2" (Intergovernmental Panel on Climate Change, 2015, p. 25). Included in this global goal for adaptation is that adaptation should be country-driven, gender-responsive and participatory.

Regional, national and local frameworks

Regionally, the overarching framework that directs adaptation policy and outcomes is the Framework for Resilient Development in the Pacific (FRDP),[10] (South Pacific Community, Secretariat of the Pacific Regional Environment Programme, Pacific Islands Forum Secretariat, United Nations Development Programme, United Nations Office for Disaster Risk Reduction, & University of the South Pacific, 2016). The Council of Regional Organisations in the Pacific (CROP) brings together several inter-governmental agencies to implement adaptation frameworks which include The University of the South Pacific, The Secretariat of the Pacific Regional Environment Programme and the Pacific Islands Development Programme. Pacific Island

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[10] The FRDP replaces the 2009 Pacific Adaptation to Climate Change (PACC) Programme, as well as the 2005-2015 Disaster Risk Reduction and Disaster Management framework and the Pacific Islands Framework for Action on Climate Change 2006-2015.

countries were successful in demonstrating collective diplomacy and advocacy when they lobbied for the stand-alone ocean SDG. However, while a regional approach appears to address certain common issues experienced by Pacific Island countries, there is a danger that some concerns will be overshadowed:

> … there is increasing discussion about an 'all-of-government approach' in evolving common strategies towards the region and to individual PICs. While such as approach is seen as being more effective, as it reduces duplication of efforts and wastage as well as minimising contradictory directions in development assistance, there is a danger that it will also contribute to a lead government agency overshadowing the legitimate concerns of other departments (Naidu, 2017, p. 154-155).

There is also an argument that in order for Pacific regionalism to reach its potential, the organisations involved need to work collectively to increase their legitimacy (Davidson, 2016). This discussion on Pacific regionalism is relevant as adaptation is mainstreamed into regional and national development[11] and therefore the needs of *local* development may be harder to action.

Nationally, the strategic framework for adaptation in Fiji sits with the Climate Change and International Cooperation Division under the Ministry of Economy in Fiji. There are two main policy documents that deliver national frameworks for adaptation. Firstly, the 2017 National Climate Change Policy has an objective of "mainstreaming climate change issues into all national and sector policy and planning processes" (Fiji Govt, 2012, p. 21) and "reduce the vulnerability and enhance the resilience of Fiji's communities to the impacts of climate change and disasters" (p. 23). The second policy document is the National Adaptation Plan Framework (NAP) which seeks to enhance the adaptive capacity and resilience of communities through local and context-specific planning implementation (MOE, 2017a). The Green Growth Framework for Fiji is another significant framework that aims to integrate all sectors into sustainable action. The guiding principle of this framework aims to: "Reduce carbon 'footprints' at all levels; strengthening socio-cultural education of responsible environmental stewardship and civic responsibility; and incentivise investment in the rational and efficient use of natural resources" (Fiji Govt, 2014, p. 6).

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[11] The mainstreaming of adaptation into development will be discussed on page 54.

Propelled with a sense of urgency, adaptation is a multi-dimensional space to work in. Governments have created many frameworks and continue to revise or supersede existing ones to best conceive and implement adaption both regionally and nationally. The deliverers of adaptation consider its relationships with disaster relief, development – often represented as adaptive capacity – and other complex and nuanced approaches to recovery and change. These deliverers within the climate change policy and implementation community are an assorted group who have different agendas and tools:

> First, we have the politicians who have made climate change into a political platform followed by technocrats and policy makers who paint extreme scenarios that prompt us to act. They are ably supported by academics and scientists armed with voluminous meteorological and biogeophysical data. The most vocal in the community come from civil society organizations who feel that they, representing the interests of vulnerable communities, carry the heaviest burden and have the biggest stake in the discussion (Flor & Flor, 2017, p. 7).

The adaptation sector in Fiji has made considerate inroads in a relatively short span of time, however, there are some in the sector that say the strategy needs to change. One way this is expressed is that enough time has been spent on policy, and now it is time for action (J.Veitayaki, personal communication, August 11, 2018). Also, there needs to be an attempt to arrive at a more holistic vision and approach for adaptation. This vision needs to reflect the choices available in local realities:

> We must become aware of our own role in the construction of what counts as 'climate adaptation', recognizing how we have selected particular categories of adaptation and how these may be resisted in certain contexts. This involves acknowledging how what is deemed a 'successful adaptive strategy' by policy-makers may be understood by others as simply a necessary way of coping in situations of limited choice (Neef et al., 2018, p. 136).

Locally, there are many representatives from civil society and international non-government organisations who work tirelessly on the ground to deliver adaptation at the local level. While this thesis does not explore the considerable work done by civil society, it does recognise the significant role civil society plays in adaptation in Fiji. Non-government organisations (NGOs) and community-service organisations (CSOs) are a driving force in delivering outcomes for local people as they often represent local voices and concerns:

> Civil society provide the link from corridors of power to village, amplifying what the village knows best and mobilizing to influence decision makers and policy dialogue such as this. Civil society organisations and groups contribute to holding communities together and often become the glue community action in maximising social capital (Duituturaga, 2018, p. 1).

But it is often difficult for civil society to make inroads into policy. While civil society was represented at Climate Action Pacific Partnership in Fiji 2018, this had mixed results: I attended this conference and was impressed with the level of inclusion from civil society. However, when it came to question time from the floor, it was difficult for women, NGOs and CSOs to physically get to the microphone in time. Instead, questions were predominately asked by Australian or European men.

NGOs compete to make an impact as they vie for scarce funding (Waqetia, personal communication, July 16, 2018). They often are "unable to find the support for the appropriate solution and are forced to tweak their needs to match donor interests" (Smales, 2018, p. 169). Yet there is much grassroots action that requires local support (various communication, July-October, 2018) including in the area of natural resource management (Naidu, personal communication, July 11, 2018). As NGOs and CSOs represent local concerns, it can be concluded that these organisations, and therefore local voices, are both supported and confined by global, regional and national frameworks for climate change action.

Adaptation approaches and processes

This section provides context for the approaches and two main processes for adaptation in the Pacific.

A review of literature regarding adaptation highlighted the need for bottom-up approaches to adaptation which is reflected in the evolution of adaptation approaches. This evolution has largely been from regional scientific modelling approaches to a focus on communities and capacities to adapt (Campbell & Barnett, 2010; Neef et al., 2018). The main reason for this shift was because former approaches ignored the human dimensions of climate change at the local scale and adaptation measures needed to be more people-centred (Campbell & Barnett, 2010). There is also a strong desire for people-centred adaptation to reflect Pacific communities as they are now with limited financial resources from changing

lifestyles (Dumaru, 2010). Both the gains and scars from how Pacific communities have developed over past decades are clearly visible as adaptation grapples to serve these communities.

In 2012, the Pacific Centre for Environment and Sustainable Development (PACE-SD) at The University of the South Pacific created a report from their survey of good practices of 31 community-based climate change adaptation projects in the Pacific (McNamara et al., 2012). These projects ranged from water security, hazard mapping, village relocation, gender equality and effective governance. The survey highlighted a number of key lessons from the adaptation approach that these projects took: adaptation strategies need to be locally appropriate; community knowledge needs to be included in all stages of projects, as does community ownership of the project; and common-sense strategies need to be considered where climate change empirical evidence is not available. From a review of a rural community's adaptation project, this report highlighted that one size does not fit all when it comes adaptation projects. Understanding the communities that projects engage with is crucial to designing appropriate activities.

A review of a coastal management and water supply project in three coastal villages in Fiji reveals similar lessons. This review identified the necessity of community involvement, support from outside groups, sharing of information, and long-term monitoring, evaluation and maintenance (Aalbersberg, et al., 2010).

Adaptation approaches outside of mainstream adaptation (or adaptation that is motivated by governments or international donors) is harder to present as much of this happens outside of mainstream debate and reporting. However, evidence of grass roots action can be seen in many locally managed marine areas in Fiji. Although providing details of this action is outside the scope of this thesis, it is worthy of a thesis on its own. In addition, many villages exercise their own traditions to adapting to the changes in climate, like *vanua sauvi* (no-take zones). The above review of more mainstream adaptation projects serves the purpose of presenting the current focus for funded adaptation projects and government strategy as an indication of whether policy looks set to be informed by local concerns.

This section now looks at two processes that deliver adaptation in the Pacific, as identified in a review of the literature. One approach is social and cultural based, that

of community-based adaptation, and the other is based on shorter-term and often technocentric solutions, that of ecosystems-based adaptation. All adaptation literature is generally in agreement that while climate change adaptation needs global recognition, it is dialogue at the local level that is more limited. As has been presented, The Cancun Adaptation Framework affirms that adaptation must be created by local context.

Ecosystems-based adaptation

The first adaptation process which is predominant in the literature and on the ground in the Pacific is eco-based-adaptation (EbA). This approach reflects often short-term and technocentric solutions to the impacts of climate change. This ecosystem focussed approach aims to build the resilience of human communities to the negative effects of climate. EbA as an adaptation approach is on the rise (Chong, 2014; Reid, 2016; Girot et al., 2012) and is the preferred adaptation approach for many regional networks (Hill, 2015). This is the case in Fiji and is delivered through the South Pacific Regional Environment Programme, Pacific's Ecosystems-based Adaptation to Climate Change Projects (PEBACC). The overall outcome of PEBACC is to integrate EbA into development, adaptation and natural resource management policy and planning processes across the Pacific (Pacific's Ecosystems-based Adaptation to Climate Change Projects, 2018). Currently, the project runs in Fiji, Solomon Islands and Vanuatu, with plans for scaling up across other Pacific countries.

A criticism of EbA is that while some authors herald this approach as addressing more than just the physical environment, project outcomes do not always reflect this: "It is increasingly recognised that EbA has significant potential to reduce human vulnerability, but also that it is not always the best solution to reduce local human vulnerability" (Hills, 2015, p. 9). Another criticism of EbA in the literature is identified by Munroe et al. (2012) who questions the monitoring and evaluation of EbA's effectiveness:

> Therefore, the current state of evidence regarding the merits or otherwise of EbA is unknown and it has not been possible to identify prevailing knowledge gaps to inform research and analysis, which will enable policymakers to compare EbA with other adaptation options (p. 1).

Girot et al. (2016) further highlights that EbA does not always incorporate social complexities like recognising the needs of marginalised groups and therefore applies token participation. Others agree that the EbA approach does not consider other systems like political and cultural systems (Crook & Rudiak-Gould, 2018).

Mercer et al. (2012) highlight the need for EbA to assess both local and external knowledge when delivering EbA projects to strengthen ecosystem and community resilience. These authors also warn that even though there are apparent advantages and support for approaches like EbA, there has not been enough in-depth analysis of projects. Further, they criticise EbA for claiming to stress the integration of local and external knowledge, but rarely delivering on this goal. Additionally, Crook & Rudiak-Gould (2018) criticise EbA's Eurocentric terms like 'culture' and 'climate' as "poor substitutes for particular Oceanic conceptualisations, and merely proxies for specific indigenous references and philosophies" (p. 2).

Another theme that emerges from the literature is that the physical focus for EbA is too narrow. There are some who believe that a focus on the physical nature of problems over social and cultural environments is not going to yield adaptation that will serve local people. Lagi (2018) also argues that traditional practice (which includes utilising and protecting natural resources) comes from within, whereas external frameworks are generally from Fisheries Ministries and conservation groups from the Global North. Additionally, there is fewer literature that explores a wider focus for this adaptation approach, including the linkages between EbA and development, even though much of the EbA literature questions its narrow focus on the physical environment.

A technocentric view to the solutions of adaptation is based on the fundamental belief that nature can be controlled and dominated (Siwatibau, 1997a):

> Because of the power with which science and technology hold most of us in awe, and because they have amply demonstrated their benefits to our material well-being, we tend to look to modern science and technology to solve most of our problems, even when these directly result from their application, as in the case of climate change (p. 164).

Siwatibau argues that adaptation solutions that seek to scale up, including EbA, do not allow for the multitude of different small societies and local communities to survive. This speaks to the nature of culture and society and whether adaptation

approaches foster their complexity and diversity or not: "The world and its people make up a system that's too complex for focused solutions" (S. Siwatibau, personal communication, September 19, 2018).

Community-based adaptation

The second process that delivers adaptation in the Pacific is community-based adaptation (CbA) which provides local context in adaptation planning. McNamara and Buggy's (2017) CbA literature review observes that a CbA approach was borne out of several factors including the desire to move away from top-down, technocentric approaches to adaptation. CbA has grown rapidly in popularity, largely due to the lessons that development has learnt and has transferred to CbA (Girot et al., 2012). These lessons include the failures of top-down projects that ignore the unique needs of local needs.

Characteristics of CbA in the literature can be summarised as operating at the local level; a social process and not just a series of tools or resources; identifying activities that strengthen the local capacity of people to adapt; participatory approaches; and addressing local development concerns. The literature also links CbA to strengthening adaptive capacity and resilience through projects like promoting sustainable livelihoods in agriculture and promoting sustainable use of natural resources.

McNamara and Buggy's (2017) literature review concludes that there is a need to re-conceptualise CbA so that a romantic notion of 'community' does not repeat the mistakes of the past and ignore key issues of inequality and power. This re-conceptualisation of community is extended in Buggy and McNamara's (2016) other work:

> Assuming that projects will be successful just because they are being undertaken at the 'community' level effectively ignores key elements of the social context, power relations, elite capture and changing traditional norms. Evidently this has been the root cause for many project failures … (p. 276).

These authors further argue that community needs to be more than just the physical location where projects are rolled out: community must include spaces to transform inequalities in order to be deemed a success. This re-conceptualisation of community

is relevant in adaptation discourse because much of the literature on adaptation highlights that community-based projects (CbA) should be the norm.

Another criticism of adaptation processes that relate to community is that adaptation processes and projects have been accused of "applying token versus meaningful participation and the capture of benefits only by local elites" (Girot et al., 2012, p. 14). The usage of community in adaptation is also challenged by Sharma (2014) who questions what is meant by 'community-based'. She argues that just because something is based in the community does not mean the community is in control of the process or outcomes. Participation can be anything along a continuum, starting at initial consultation and no other local contact to full reflexive participation of local people at the project design phase right through to longer reflexive monitoring and evaluation. She, like Buggy and McNamara (2016), calls for a radical change in terminology to put communities in the driving seat of their own development by using the scope of community-*driven* adaptation, and not just community-*based* adaptation.

CbA has other challenges: lack of funding can present obstacles for implementing identified solutions (Jamero, 2018) and a departure from CbA's intended active, meaningful and free local participation (Kirkby, 2018). Some also feel that CbA is dominated by elites, especially in communities that are more unequal (Mansuri & Rao, 2004). But even with its challenges, some believe that CbA does have the potential to address failed development (Dodman & Mitlin, 2013).

Close cousins who value indigenous knowledge

EbA and CbA have been referred to as close cousins (Reid, 2016; Girot et al., 2012) as they share a bottom-up delivery ethos and both value indigenous knowledge. There is an increasing interest in integrating these approaches (Reid, 2016) due to the fact they both aim to be largely managed at a local level. Much of the literature agrees that traditional knowledge has a vital role to play in adaptation. Kelman (2010) argues that different knowledge bases should be integrated to achieve the best results for respecting and implementing local voices. Most authors appreciate the role of traditional knowledge in strengthening adaptive capacity for adaptation, although some authors claim that there is still a temptation to favour external knowledge and techniques over traditional or indigenous knowledge (Hau'ofa, 1993;

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Kelman, 2010; Teaiwa, 2014). Further, Gegeo (2018) highlights that some Pacific communities are often given information only, through purpose and not osmosis, and that knowing is different than knowledge.

Valuing traditional knowledge has been seen as acknowledging the social process of adaptation. Gegeo (as cited in Prasad, 2006) recalls the topics that were talked about in meetings when he was growing up: the ocean, stars, greed and sharing, politics, work, sadness and happiness, departure and return – combining physical, social and cultural elements of life. Gegeo & Watson-Gegeo (2006) have always argued that a Pacific epistemology and ontology exists and without this, knowledge does not exist. This is also expressed by Solomon Islander Ruth Liloqula as she shares local knowledge passed down from her mother:

> … there would be bananas not harvested. She'd [Mum] leave them to rot, we'd be asking 'why are you doing that? and she said 'No, you must give something back to the land. Apart from that this place would be reforested. So the birds must come and eat here and drop their droppings … the majority of people are rural dwellers and unless you understand them you are not going to be able to get it right for them (Liloqula, 2010, p. 134-142).

The integration of traditional knowledge with scientific knowledge is a key theme in the adaptation literature that focuses on local communities. Inderberg, Eriksen, O'Brien and Sygna (2014) present adaptation technologies as a key element to adaptation, highlighting that technology development is a growing priority for adaptation. Although, these authors stress that technologies often do not address underlying stressors such as access to water and therefore fail. In additional, some have called for the revival of indigenous knowledge and practice in adaptation because it is in danger of being lost. (Remling & Veitayaki, 2016).

The linkages between adaptation and development

This section looks at the linkages between adaptation and development. It begins with the development profile and development considerations for Fiji. This section then focuses on the mainstreaming of adaptation into development.

Fiji's development profile and considerations

This section now looks at relevant indicators within Fiji's development profile (see Table 2. This section then looks at other aspects of development that impact the ability to adapt to climate change.

Table 2: Fiji's Development Profile

FIJI'S DEVELOPMENT PROFILE	
Total population	884,887
Ethnic breakdown:	
iTaukei (indigenous Fijian)	57%
IndoFijian (of Indian descent)	37%
Locality breakdown:	
Urban	55.9%
Rural	44.1%
United Nations country ranking	Upper-middle income
Unemployment rate	6.2%
2017 Human Development Index	92 (out of 189)
Life expectancy at birth	70.4
Expected years of schooling	15.3
Mean years of schooling	10.8
Per capita income	US$8,324 (2011)

Source: MOE, 2017b; Fiji Bureau of Statistics, 2017; UNDP, 2018b.

To compare Fiji's HDI with other countries in Pacific, Tonga's HDI is 98 (out of 189 countries) and Papua New Guinea's HDI ranking is 153. The higher the ranking, the lower human development, according to the United Nations ranking system.

Fiji's national development activity is set out in the country's 5-Year & 20-Year National Development Plan (NDP). Fiji's NDP's approach is twofold: "Inclusive Socio-economic Development" and "Transformational Strategic Thrusts" (MOE, 2017b, p. 2). Fiji's NDP also seeks to transform Fiji "towards an even more progressive, vibrant and inclusive society" (p. 2). It outlines a framework that encompasses strategic policy manoeuvres, new approaches to development and the aspirations of all Fijians. In the Fiji Government's 2018-2019 budget brief, the Attorney-General stated that, "The budget is built for all Fijian families, and it

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empowers all families laying out new and better economic opportunities and prosperity for now and the future" (Sayed-Khaiyum, 2018, para 3). The cost of living and jobs were the top pre-election issues in Fiji this year (Radio New Zealand [RNZ], 2018a). The minimum adult hourly wage rate in Fiji is currently FJ$2.68 an hour (MOE, 201c). This low wage coupled with the rising cost of living is a concern for many NGOs and the communities they serve (Pacific Islands Association of Non-governmental Organisations [PIANGO], 2008; Habitat for Humanity, 2018).

Country development profiles can be viewed in different ways. In 2013, the Asia Development Bank reported that 28 percent of the population in Fiji lives below the national poverty line (Asian Development Bank, 2013). While there are global indicators for poverty, some Fijians use their own indicators to define their own wealth. A passer-by in the town of Levuka in Ovalau told me his interpretation of poverty by saying, "We are fiscally poor, but spiritually rich." Nuanced understandings of what local people value is necessary for an accurate portrayal of their lives.

Another aspect of Fiji's development relevant to this thesis is the political instability centred around various coups and how this affects local lives. Coups have had and continue to have the potential to disrupt any development, adaptation or social plans. Fiji has seen four coups – two in 1987, one in 2000 and another in 2006. The recent political environment stems from 2014 when the military government held a democratic election in 2014 and retained power. One way to break what has been called Fiji's 'coup culture' (Lal et al., 2008) is improving rural development:

> … coups were related to ineffective rural development, which was used by the coup leaders to gain support of the rural populace. The lack of development in rural areas divides the country into the main centres and the periphery, while the inability of each government to address the needs of the people and the lack of improvement to living conditions in rural areas made people dissatisfied with them (Veitayaki, 2008a, p. 39).

While rural development is just one lens to view the 'coup culture' in Fiji, it is an important one as the focus for poverty alleviation in coastal communities has received much attention in the Global Development Agenda[12]. But this attention has

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[12] The Global Development Agenda here refers to the Agenda's origins when Harry Truman's (1949) inaugural presidential speech narrated some countries as underdeveloped, miserable, inadequate,

seen livelihoods worsened in many of these areas: prior to colonisation, many people lived in economies that relied on subsistence living and had access to healthy organisation of sharing and reciprocity (Hickel, 2019). The intensified transition from self-sufficient subsistence living to a focus on modernised economic growth has not always brought the promised wealth and prosperity:

> Local villagers have adopted capital-intensive and mechanical methods of production and discarded environmentally friendly forms of intensification, resulting in worsening environmental degradation and the impoverishment of these communities. Consequently, at the World Summit on Sustainable Development in 2002, poverty, unsustainable development, and environmental degradation were found to be prevalent in rural communities that had lost their independence and were reliant on the globalized economic system where they are disadvantaged (Veitayaki et al., 2008b, p. 391).

Pacific aid and climate change

The development mechanism of aid will now be briefly explored as it relates to climate change in the Pacific. This relationship, to some extent, governs the donor-community relationship through the agendas of aid and donor projects. Fiji is the fourth largest official development assistance (ODA) recipient in Oceania, receiving US$109 million in 2016 (see Table 3). This figure represents six percent of the total ODA given to Oceania (Development Assistance Committee arm of the Organisation for Economic Co-operation and Development, 2018).

Table 3: Top 10 Official development assistance (ODA) receipts by recipient

TOP 10 ODA RECEIPTS BY RECIPIENT _USD million, net disbursements in 2016_	
Papua New Guinea	528 (31%)
Solomon Islands	182 (11%)
Vanuatu	129 (8%)
Fiji	109 (6%)
Samoa	88 (5%)
Wallis and Futuna	85 (5%)
Tonga	80 (5%)

victims, and suffering. Even stronger than this narrative was that these countries could only be saved by rapid economic growth and enforcement of the wonders of modernity. This impacts the current climate change narratives that flow in and out of the Pacific, including 'vulnerability' which will be discussed later in this chapter.

Kiribati	63 (4%)
Micronesia	51 (3%)
Tuvalu	34 (2%)
Other recipients	334 (20%)
Total	1 680 (100%)

Source: Organisation for Economic Co-operation and Development (2018)

The development mechanism of aid has a long history in the Pacific, starting with colonisation's physical occupation in the 1880s; colonisation was the most unequal form of contact with outsiders and included a "scramble for colonial real estate" (Chappell, 2013, p. 140.) After occupation, a central mission emerged as ex-colonisers 'helped' their former countries adjust to newfound freedom, largely by way of different versions of aid (Wainwright, 2011). This author argues that this central mission of decolonisation also rests on developing countries as the 'third world' and states their governments promised their people national growth and largely failed to deliver. Development's survival relies on convincing people that they need intervention.

There have been many shifts in aid paradigms, however, as much literature shows most shifts hinge on dependency and various levels of effectiveness. Some authors propose that the current aid relationship reduces island states' adaptive capacity and validity of adaptation. In Murray, Overton, Prinsen, Ulu and Wrighton's (2018) recent book *Aid, ownership and development: The inverse sovereignty effect in the pacific islands* argue that aid can be seen as having an inverse sovereignty effect because aid conditionalities created little room for the Pacific to be in control of its own policies. These authors highlight that the development sovereignty of the Pacific has seen little improvement, yet aspects of Fijian culture may hold the key for improvements: "It is this set of evolving cultural practices that leaves scope for the assertion of agency" (p. 285-286).

Another perspective of Pacific aid sees PIC governments not only as "victims of aggressive external influence … [but] have always manipulated situations for our benefit" (Latukefu, n.d., as quoted in Lasaqa, 1985, p. I-A.2). Regardless of who benefits from this aid relationship and how they benefit, "The quantum of aid and the mode of delivery have never been adequate to bring about systemic people-centred changes in recipient countries" (Naidu, 2017, p. 147).

A recent major shift in the current aid paradigm which affects the Pacific, and therefore adaptation support, is the emergence and impact of new global aid partners. These partners are strengthening their interest in the Pacific, namely those from India, Israel, Russia, Japan and China (Centre for International Development, 2019). Fiji has recently received US$4.6 million for peacekeeping and relief from China (RNZ, 2018b) and China is also seen as a significant stakeholder in Fiji's rural development. This was demonstrated by its influence at a recent symposium to develop Fiji's rural development policy (Komaisavi, 2018). The symposium highlighted China's assistance in Fiji in agriculture, education, disaster relief and social development in rural areas. Asian countries' insertion into Fiji can be seen as a power play due to China's rapid economic growth and desire to extend their success and control in the Asia-Pacific region (Morgan, 2018).

The Australian Government believe Pacific countries are falling in a debt-trap with Asia's development influence in the Pacific as Asia lends millions in concessional loans for development projects. (Fierravanti-Wells, 2018, as cited in Graue & Dziedzic, 2018). Aid from China has also been referred to as 'boomerang aid' meaning that the financial support is returned to China by way of payments to consultant and receiving of goods and services (Naidu, 2018).

> Much of the aid [from China] given to PICs is boomerang aid, meaning that the funds eventually go back to the donor country by way of procurement of goods and services, payment to consultants, and salaries of personnel on the ground (Naidu, 2018, p. 39).

The term 'Pacific' on its own is a contested word as stakeholders consider the Pacific's identity. Oceania is other example of geostrategic or identity-driven terms used. The term 'Pacific' is used in this thesis, but it is acknowledged that Pacific definitions and identity continue to be explored, especially by those of the region. The relationship and often joining of Asia and the Pacific is therefore often seen as geopolitical and some believe is a cause for concern. The term Asia-Pacific has been contested by many Pacific thinkers who believe the Pacific is a distinctive region that can speak for itself (Duituturaga, 2017). China's new aid agency, China International Development Cooperation Agency, raises questions about how China is using foreign aid as "a tool to maximize China's foreign interests and increase its influence on the global scale" (Zhang, as quoted in Cornish, 2018, para 18).

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Climate change funding is taking a growing share of aid with climate finance, taking 21 percent of ODA budgets in 2015-2016 (Carty, Kowalzig & Peterson, 2016). This Oxfam report reports that public climate finance amounted to 21 percent of total global official development assistance (ODA) budgets in 2015–16, with much of this "… counted against donor commitments to increase ODA to 0.7 percent of gross national income" (p. 3). Other considerations for climate aid relate to trends in humanitarian aid. A humanitarian context for adaptation offers another layer of global and regional cooperation: financing and action as recovery from extreme weather events is inextricably linked to adaptation, development and disaster relief. Actors in this field are seeking greater clarity and collaboration, especially in the case of recent trends around strengthening humanitarian responses to localisation (United Nations Office for the Coordination of Humanitarian Affairs, 2017).

Finally, climate change is also altering the aid landscape because it "opens the door to cynical manipulation of the climate change aid game, in which damages from local development are opportunistically recast as 'climate change impacts', thus absolving local developers and leaders" (Crook & Rudiak-Gould, 2018, p. 18). This manifests as money targeted for climate change being used opportunistically through overseas travel and funding local development, even though the links to climate change may not be obvious (Rubow, 2018).

Mainstreaming adaptation into development

The mainstreaming of adaptation into development is now a practice in all Pacific countries as it has been identified that the capacity to adapt to climate change is highly dependent on the level of development. The regional framework that mandates this mainstreaming is the Framework for Resilient Development in the Pacific (FRDP) mentioned on page 40. The FRDP has been heralded as the world's first integrated regional framework to build resilience to climate change and disasters (UNDP, 2016). This framework has three inter-related goals that aim to, "Enhance resilience to disasters and climate change in the context of sustainable development and efforts to eradicate poverty" (The Pacific Community, 2016, p. 12). This framework shows that adaptation aims to be fully mainstreamed into development. The mainstreaming of adaptation in the Pacific is a response to the multifaceted nature of climate change – and therefore its impacts on every aspect of society,

environment and people. This mainstreaming relates to integrating climate risk into each government department's planning and action; therefore, the Pacific's mainstreaming approach advocates for adaptation to be tackled within a development context in every development process and decision-making. It therefore makes sense to enquire what the development concerns are of local people and not just focus on infrastructure or 'thrusts' for progress.

Sherman et al. (2016) insists that adaptation is a cross-cutting issue and therefore best addressed through development. In addition, this author highlights that as changes in climate have the potential to set back development achievements, climate must be considered in development. However, there is criticism of the current effectiveness of the mainstreaming process, even to the point where this process could cause maladaptation:

> … 'development as usual' may inadvertently increase vulnerability. For instance, new roads might be weatherproofed from an engineering standpoint, even taking future climate into account, but they might trigger new human settlement in areas highly exposed to particular impacts of climate change, such as coastal zones vulnerable to sea-level rise. This is known a maladaptation (Organisation for Economic Co-operation and Development, 2009, p. 15).

There is also little evidence that mainstreaming adaptation into development is effective (McNamara & Buggy, 2017). Inadequate 'vulnerability' reduction has been given as an example of how mainstreaming may not best serve communities: "This is the role that development has to play … reshuffling the current understanding to ensure that 'climate-proof' development involves reducing vulnerability, and not simply identifying responses to the impacts of climate change" (Schipper, 2007, p. 3).

The impacts of climate change on development, and vice versa

This section will first summarise how climate affects development, and vice versa, before it focuses on one major aspect of this affect – 'vulnerability' discourse that sits within adaptation, and this relationship with development. It then turns to the current focus for adaptation.

The impacts of climate change significantly affect the everyday lives of those who live in Fiji. Just under half of Fiji's population live in rural areas, making development inextricably linked to changes in coastal environments from the impacts of climate change. This includes changes to management and the usage of the natural resources which rural communities' livelihoods depend on for food and income. Communities also rely on their natural resources to express the Fijian custom of reciprocity. A story was told to me by Associate Professor Joeli Veitayaki of how important reciprocity is. A group of Japanese visitors went to Gau Island to find out about a local resource management project. After a long day walking and observing, they returned to where their boat had been left. Because the boat was in an inlet they had to wait for the tide to change to make it back out to sea. They fell asleep under a tree. While they were sleeping, a group of local women arrived and quietly began to prepare food. When the visitors woke up, the women served them the food. The women had little of their own resources but looking after the visitors came first. This story is an expression of the tension between changes in natural resources, customs and culture, social obligations and the reciprocity between them all.

While this research focuses on rural Fijians, there is significant impact to those living in urban areas, especially informal settlements. It can be said that in fact these informal settlements polarise challenges that PICS face as they represent systemic problems and failures (Thomas, 2007). Further discussion on informal settlements is outside the scope of this thesis but is connected. The desire for reciprocity is inextricably connected to supporting family members wherever they reside. The cost of living in Suva is also having a thought-provoking effect on how families in Fiji financially support those living elsewhere. There is some indication that rural families are supporting urban relatives in Fiji, although this requires further investigation (Dumaru, personal communication, January 18, 2019).

Conversely, development also affects climate change, which turns the microscope from PICS to the Global North. Globally, development's impact on climate is obviously experienced as a rise in global warming, but at the national and local level, there are development practices that impact on the environments for local people. Climate change is not just a problem for development, but a problem of development. (Inderberg et al., 2014). Unsustainable development practices are

being looked at as countries consider their Paris Agreement responsibilities, but the global development community have tried once before to question dominant forms of development that have damaged the environment and failed: sustainable development was heralded to save both the environment and people (Pelling, 2011).

Gender considerations

Climate change is not gender neutral as the impacts of climate change affect men and women differently. McLeod et al. (2018) has highlighted that there is an increase in violence towards women post-disaster: women are often unable to undertake normal duties and have the additional burden of inconsistent or scarce food sources or longer distances to collect water. Doubled with this, women are sometimes unable to contribute to their own adaptation due to their political-invisibility (Terry, 2009).

Women hold a significant amount of indigenous knowledge, vital for the adaptation and survival of their communities (McLeod et al., 2018). In addition, men often make the majority of decisions when it comes to resource allocation after a disaster (Lane & McNaught, 2009). Women are also affected disproportionately to climate change due because "women depend on natural resources for their livelihoods, do most of the agricultural work, and are responsible for collecting water and fuel" (Terry, 2009, p. 3).

However, gender issues tend to be overlooked in adaptation (Terry, 2009) and obscured in the mainstreaming of adaptation into development: "… the mainstream policy discourse is stereotypically masculine: what we tend to read and hear about are complicated computer models; neoclassic economic approaches… "(p. 1). While Terry admits that alternative paradigms are being offered, they are not gender balanced.

There are many women's empowerment projects in Fiji that report and appear to be successful, like the United National's Market for Change project which aims to strengthen the agency, endowment and economic opportunity of women (UNDP, n.d). I saw outcomes of this project first-hand in Levuka, on the island of Ovalau, where the women decided they did not want to move back into the town's market after Cyclone Winston. The market was on the edge of town and even before the cyclone, the women preferred to sell their fruit and vegetables in the centre of town

where there was more foot traffic. The Market for Change project gave the women new shelters over their roadside stalls to protect them from the sun and wind.

The linking of climate adaptation to gender equality is new at the policy and project levels (Dekens, 2017) but one that is required as the sector asks the question, who is it that is making the decisions about mitigation and adaptation? (Terry, 2009).

'Vulnerable', or resilient agents of change?

A significant aspect of how climate change affects all areas and levels of development is the Pacific 'vulnerability' discourse within climate change. Neef et al. (2018) believe that adaptation has the potential to reframe 'vulnerable' communities as resilient agents of change.

While the impacts of climate change in the Pacific are extreme and are set to worsen, many caution that the 'vulnerability' discourse further disempowers Pacific people to lead their own development, whatever that may be. "A risk in portraying Pacific people as vulnerable is that 'vulnerability' is often interpreted as synonymous with 'helplessness'" (Paton & Fairbairn-Dunlop, 2010, p. 691). These narratives have also been challenged by NGO 350 Pacific Climate Warriors as shown in Figure 10. Feminist geographers McNamara and Farbotko (2017) consider this network as action towards re-envisioning Pacific futures: "The Pacific Climate Warriors network has used solidarity and symbolism to convey a collective identity and message that is ultimately about fighting for their survival" (p. 24).

"Hoping the canary dies" is also an expression that has been used to describe the 'vulnerability' discourse around climate change, this time as way for the rest of the globe to be saved (Turner, 2005, as cited in Farbotko, 2010, p. 57). This paper argues that problematic moral geography is at play in the drowning discourse as "a perverse desire to see Tuvalu disappear for the planet to be saved" (p. 57). Mansfield (2012) offers that although images like that in Figure 10 are employed to encourage action, a perhaps unintended consequence is that they appear to be excluding alternative pictures of adaptation and resilience within the Pacific. A Western-informed view of the Pacific denies Pacific people a vision of their own world. As Farbotko (2010) describes, "These types of understandings are disempowering" (p. 51) and, "Island

people, long marginalised, are denied their own agency in the climate change crisis"
(p. 58).

Figure 10: Climate warriors, counteracting 'vulnerability' discourse of the Pacific.
Source: 350pacific.org

However, this 'vulnerability' discourse has been used flexibly and for social change, as the Pacific Climate Warriors demonstrate. Their image was first used by NGO 350.org's Pacific in 2013 to promote their Pacific Island Warrior Day of Action and was then reused in 2017 to respond to American President Trump's pulling the United States of America out of the Paris Agreement (Fenton, 2017).

The 'vulnerability' discussion has also been repositioned in the Pacific as can be seen in the redefining of the 1992 Earth Summit's classification of the Pacific as Small Island Development States (SIDS) – isolated and vulnerable – to Big Ocean Sustainable States (The United Nations Educational, Scientific and Cultural Organization, 2018).

Hau'ofa strongly challenged the Pacific presentation as 'vulnerable'. His essay *Our Sea of Islands* (Hau'ofa, 1993) called for the reframing of the Pacific and his essay *Pasts to Remember* (Hau'ofa, 2008) argued for the flexibility of the Pacific to reframe themselves. Pacific thinkers continue to petition for the Pacific to articulate its own identity beyond identities imposed on them from outside. Hau'ofa (2008) also challenged the 'vulnerability' discourse the Pacific by saying that if it continues, the space for imagining other ways of adapting will be limited. This, he concluded, will fuel the narrative that those in the Pacific cannot survive on their own. This

reimagining can also be seen through a 'radical vulnerability' lens, as Indian scholar and theatre maker Richa Nagar proposes, where the vulnerability space is an opportunity to "erase ego's and dream together" (Nagar, 2018) giving a new look on 'vulnerability'.

There is an argument being put forward by the adaptation community that 'vulnerability' to climate change should be the main focus for adaptation, as opposed to science or purely physical environment-based approaches (Darby, 2017) even if the term is not appropriate. While the language of 'vulnerability' may be helpful in refocusing adaptation to meet the multi-dimensional nature of climate change, a reflection on the impacts of continuing to call the Pacific 'vulnerable' must be addressed in adaption discourse. Resilient agents of change may be a more appropriate term for those in the Pacific, even if this does sounds like a development-jargon laden term. Perhaps a more appropriate term would be one created by those in the Pacific, as 350 has done with their Pacific climate warriors.

Adaptation's narrow focus

Many argue for the current narrow policy framework for addressing climate needs to "go beyond its confines and address the fundamental issue of what alternative types of development we want" (Terry, 2009, p. 169). Development is complex and as adaptation is mainstreamed into development it must respond to this complexity. Please see Appendix E on page 151 for a photographic express of this complexity titled *Development is Messy*.

There is a wide choice of literature, including those from civil society and government policy, which recognises that individual impacts of climate change are influenced by a complex mix of social and cultural beliefs and realities of life. It has also been argued that a holistic vision for adaptation is required as adaptation is a social and political process and not just a physical process: adaptation's predominant focus on short-term, technocentric solutions to the physical environment is too narrow.

One of the crucial elements that adaptation's narrow focus ignores is the need to address existing inequalities that are present in local communities. Development has scrambled to address this (especially sustainable development, which has been

argued as failed in the Pacific) and now adaptation. Addressing these underlying causes is presented as a challenge in light of climate change because, "Climate change stands to exacerbate existing interlinked problems of social inequality, ecological degradation, and conflict over natural resources (Body, 2014, p. 342).

The underlying causes of poverty and inequality also need to be addressed (Felizco, 2018; McNamara & Buggy, 2017). These authors highlight that this is especially case if adaptation is to be sustainable. Brown (2011) further drives this by presents sustainable adaptation as an oxymoron if adaptation does not address its relationship with poverty reduction.

Local voices and adaptation

Engagement at the local level presents an opportunity for adaptation to address the diversity and complexity within communities. The Cancun Framework recognises that effective action in adaptation requires engagement at the local level and effective participation by local communities. Most literature on adaptation agrees. Adaptation's CbA approach endeavours to honour this, including a desire to move away from top-down approaches to adaptation. Many other authors also emphasise a bottom-up approach for adaptation so that local voices can be heard. Kelman (2010) argues that "the importance of local voices is that, irrespective of external judgements about the information being confirmed or confirmable, they provide insights into people's interests, desires, and perceptions" (p. 606).

Some authors also agree that there is a need for adaptation to focus on concerns identified by local people rather than those in the global arena (Warrick, 2011; Pelling, 2011). Pelling (2011) expresses this as: "Local viewpoints help to contextualise adaptation within development and explain why people are unable or unwilling to take adaptive action (helping to identify the limits to climate change adaptation)" (p. 17)

Some authors have further driven this argument by highlighting that it is not enough for local voices to simply be heard – they must be heard through local platforms and must be implemented beyond local contexts; some also argue that community voices are just being gathered and not listened to, and not integrated into appropriate processes (Rudiak-Gould, 2013; Ireland & McKinnon, 2013). 'Strategic localism'

has been presented by Ireland and McKinnon as a mechanism to elevate the power of local voices. This postdevelopment approach to adaptation raises the profile possibilities for adaptation that are unfolding in diverse communities.

However, just working at the local level underplays both local inequalities and power relations and there is a need for participation at all spatial levels (Dodman & Mitlin, 2013). Like strategic localism, these authors highlight that attention for more than the local is required, especially if pro-poor development is to be achieved.

While there is other literature on the value of listening to local voices and the need to then implement these local voices into adaptation processes, there is fewer literature on identifying what local voices are concerned about. Dodman & Mitlin (2013) do argue, however, that adaptation should link with local development concerns.

CbA has been presented as the ideal approach to ensure adaptation is relevant and sustainable. Yet even though local voices can make a profound contribution to understanding how climate change effects ecosystems and people, they are largely unquantified (Savo et al., 2016) or are misrepresented as their experiences are oversimplified (Walshe & Stancioff, 2018). The starting point for correcting misrepresentation is the participation of local people: we must know what local people think, feel, need and want, and whether adaptation is currently meeting their concerns. Local people are key resources in creating appropriate and effective adaptation activities (McNamara et al., 2012) and "local community views and expectations should be the focus of adaptation planning and monitoring" (p. 28-29).

A review of the literature highlights that a bottom-up approach to adaptation starts with what difficulties a community already faces (Dumaru, 2010; Barnett, 2008). Hau'ofa's (1993) inspiration about ordinary people mirrors this argument. Taken one step further, it is also important to accurately interpret what local people do so that nuanced understandings can be improved:

> Too many projects falter and finally fail blaming locals. This could be avoided if we note the details mentioned in passing … (Qualo, Veitayaki & Tipu, 2014, p. 207).

These writers strongly advocate for local voices to be heard so that local solutions can be found: "It is almost impossible to get genuine information about local solutions" (p. 210).

Climate change is a universal threat and it is easy to dismiss local actions (Ireland & McKinnon, 2013). Often, the dialogue turns into a monologue (Rudiak-Gould, 2018, p. 13). Community voices present a starting point to access and action important issues which are often not talked about in Fiji, including sensitive social problems (SCEFI, n.d.).

Summary

Globally, adaptation must now receive the same intensity as mitigation. Fiji is attempting to adapt to the significant impacts of climate change, especially the recovery of category five tropical Cyclone Winston which caused significant damage in 2016. Fiji bought these impacts to global attention during its COP23 presidency. Frameworks seek to mainstream adaptation into development and deliver adaptation processes to support those affected by climate change. However, adaptation approaches have been criticised for focusing on the physical environment aspects of climate change and largely ignoring the political and cultural aspects. Even though approaches favour indigenous knowledge and local contexts, a reconceptualising of community would assist in actioning local voices. Also, as climate change is not gender neutral, the role of women needs to be further considered in adaptation. Lastly, 'vulnerability' discourse may need to be seen through a resilient agents of change lens when colonisation and aid dependency are included in the climate conversation. These considerations must be recognised as adaptation is mainstreamed into development. It has been argued that the starting point for bottom-up adaptation is locally expressed concerns.

Chapter four: *Va* conversations – *resetting the sails*

This chapter answers the sub-question, 'In the two case-study localities, what were the main concerns expressed with regard to climate change, in the context of broader development issues?'

Ovalau Island

This first section presents *Va* conversations from Ovalau Island, Lomaiviti District of Eastern Fiji (see Figure 11, Figure 12 and Figure 13).

Figure 11: Map of Ovalau Island showing research localities. Source: Base map, Google Maps.

Ovalau is the sixth largest island in Fiji and covers 106.4 square kilometres. It has a population of 1944 across 12 districts. Levuka was the first capital of Fiji when the country became a British colony in 1874 (see Figure 12). In 1882, the capital was moved from Levuka to Suva and the investment into developing the town of Levuka largely stopped (Harrison, 2004). One of the island's main sources of income is the local tuna cannery, The Pacific Fishing Company (PAFCO). The town's economy has fluctuated with the ups and downs of this company's history. Other employment

for the residents on Ovalau Island includes work from by resorts on the nearby islands of Moturiki, Leleuvia, Moturiki and Wakaya. Levuka has a local town council and is also the location of the Lomaiviti Provincial Council.

Figure 12: Levuka town, Ovalau Island.

The Lomaiviti group of islands were one of the worst regions affected by tropical Cyclone Winston on February 20, 2016. People reported that most homes in Arovudi and Taviya were badly damaged, as well as the local church and other community infrastructure. All crops were destroyed, initially leaving the village without food and future income.

Figure 13: Arovudi village, Ovalau Island.

Climate change concerns

Understanding climate change

Understandings of climate change were mainly centred around disaster preparedness and disaster relief. Many people felt that they did not how to cope with climate change other than to reduce their use of plastic, respect *tabu* areas, continue replanting, and continue their faith in God who will protect them.

Rebuilding after Cyclone Winston

Many people were still rebuilding their homes as well as community infrastructure (see Figure 14) that were damaged from Cyclone Winston (the cyclone) two and a half years earlier

Figure 14: Church in Arovudi, after Cyclone Winston.

Jale considered that even though his village was nearly back to normal, they were still struggling. Most villagers were proud of the way everyone took care of each other after the cyclone, especially in helping rebuild each other's houses. The two people from the interior village of Bureta said they had recovered from the cyclone within one year because of good leadership and collective recovery. A concern regarding recovery from the cyclone was the amount of money that each household was given to rebuild a house. Many reported that the FJ$7,000 they received was not enough to build a strong house. Also, Charlie, whose family was originally from the

Solomon Islands, said he received FJ$1,500 to rebuild his home. The reason he gave for this was because he lived in the settlement behind Levuka, which was not classified as a village. Another consideration for recovery is the houses in Levuka that have a UNESCO classification. It was reported that some people in Levuka found the process and expense of rebuilding with approved heritage materials unworkable and were still living in damaged houses.

Charlie was rebuilding his own house as well as trying to find the resources to rebuild the gymnasium in the settlement (see Figure 15).

Figure 15: Charlie (left) at the community gym foundations, Baba.

He lived in the indentured labour settlement of Baba, behind Levuka town. So far, Charlie and other residents had carried 300 bags of cement 500 metres up a hill to lay the foundations of the new gym. This gym was an important community asset because the weightlifting legacy in the settlement provided a focus for young people in the settlement. Another aspect of rebuilding community infrastructure was reported in Ovalau where the church had not yet been rebuilt and church services were relocated to the community hall.

Trauma recovery

Many people were traumatised during the cyclone and Salote said one person died in Taviya:

After Christmas time, her son gave her from overseas an electric rice cooker. She came back into the house [during the cyclone] to pick it up because it was her only connection to her son. That killed her. She died.

Salote felt that her village hadn't been given any or enough counselling after the cyclone and that many were still traumatised. The emotional and social effects from the cyclone were also expressed by Arieta as a kind of depression:

When cyclones like Winston strike them, it changes everything in their life. After Winston, there was a slacking at school; kids stayed home, it was like the end of life. Parents were not pushing their kids. People lost a lot of things.

Relocation

Many referred to adaptation in terms of relocation, including receiving advice about relocating to higher ground. Other expressions of relocation included how traditional village structures and *vale* (family house) and *bure* (house) buildings could be an opportunity to build villages that would be more climate-proof. However, Rupeni said that this would not be accepted by everyone as it would be seen as "going backwards." But Rupeni also said that he saw potential in the structure of the previous traditional village on higher ground as a way to retain Fijian culture as well as adapt to climate change (see Figure 16). He said the location of the village was good for gardening, was away from lower coastal ground, and: "Just feels right."

Figure 16: The traditional village site in Arovudi.

Disaster preparedness

Sireli was highly concerned with disaster preparation and had built a platform on the beach so he could "watch the wind." In Arovudi, many people talked about what happened on the day the cyclone struck and how they first ran for shelter in the church. When the roof came off the church, residents ran to the community centre. It was clear that many people had received advice on emergency procedures and there were visible notices in many communal areas in the villages. However, many people doubted that they would be in a better position should another strong cyclone impact them again. Salote said:

> They have cyclones every year, that's correct. Their houses are built to withstand perhaps grade two of the cyclone but not a grade five. It's just a totally different kettle of fish. When things are floating down here and the sea is going this way, it's frightening. And you have nothing else.

Kalisi said that since the cyclone there has been more planting and more preparation:

> We have evacuation plans to go to the forest. Some there have built their houses there.

Seawalls

A few people discussed the building of seawalls in the town of Levuka as well as the fact they were continually being repaired. Some in the village of Arovudi said they didn't need a seawall because the rocks along the shoreline acted as a natural barrier.

Religion

While religion was expressed positively and not as a concern, it has been included because of the prevalence of its influence, especially as it relates to the impacts of climate change. It has also been included because religion was strongly connected with disaster preparedness and relocation. Even though one person lost their life during the cyclone, many felt blessed they were alive after such a strong cyclone. Most cited faith in God as the reason that there were not more deaths. Religion was also expressed as a source of hope and strength towards survival from climate change impacts like cyclones; Eroni expressed this as:

> If God is with us, we have hope.

Some people who lived along the coast felt they did not need to relocate because they could not change what was in God's plan. Sireli had been told that they should move to higher ground but said that it didn't matter where he lived – on the coast or inland on higher ground – because if it was in God's plan that he be washed away from another cyclone, it didn't matter where his home was located. Lastly, some people said that the reason some islands and villages were affected by cyclones and not others is that God was punishing the bad behaviour of some villagers.

Unseasonably hot weather

Arieta said:

> Now it is really dry, like a desert, a dry land.

The drought was causing water restrictions in Arovudi and Taviya. Also, the people in Bureta said there was a lack of water infrastructure. All around the island, unseasonable drought meant crops of *yaqona* that had been planted to replace the ones lost by the cyclone were not growing at the usual rate. Also, *yaqona* plants were not producing seedlings for replanting, due to both the lack of water as well as recovery from the cyclone. This affected confidence in being able to plan and provide for the future. Traditional teachings were used to guide how *yaqona* was planted; Rupeni said:

> When you plant, you plant first for thieves, then weather, then animals, and then the rest is yours.

Rupeni encourages others in the village to save yaqona seedlings when they can, so if another cyclone comes, they will be able to replant seedlings straight away. Jale said that the village had been given seedlings by the Ministry of Agriculture. The village was required to report back to the Ministry the amount of plants they were replanting. Jale said that this system was working well. Planting was not only a main source of income, but also reflected the collective nature of village organisation. In Taviya, the men, including many young men, were organised into planting groups and rotated gardens each day.

Lastly, most people were concerned about the lighting of fires by locals and the threat to crops and communities which were already suffering from the drought.

Support not felt at the local level

While many on Ovalau Island related their experiences of climate change to changes in the natural environment and recovery from the cyclone, some expressed concern that while the government was currently highly focused on climate change, benefits were not felt at a local level. Suliana Sandys expressed this as:

> This government is obsessed with climate change.

And Jale commented on whether the global support for the Pacific was reaching his village:

> No money is getting to villages on the topic of climate change.

Also, Salote felt that Ovalau had been generally forgotten in current climate change action. On the other hand, many people said they were sick of hearing about climate change. This was articulated by Filipe as:

> If anyone acts strange, we say it's because of climate change.

Development concerns

Unsustainable development practices

Some felt that the local Levuka Town Council was involved in unsustainable development practices; Suliana said: "They are putting in so much money and preaching about climate change, and as a result, they don't look at the effects of what is happening right now with the actions that they are doing." Suliana cited this practice as, amongst other things, the removal of soil and rocks by the local council. She said that soil and rocks were needed to protect the river banks in times of flooding. Unsustainable development practice was also expressed as being the fault of both locals and development stakeholders. Donarto said:

> If resources are used properly, people will benefit.

A few people felt that locals were also to blame for unsustainable practices, including overfishing. Jale said:

> We are to blame too: spilling in to the ocean, burning down trees, felling … There have been some workshops. People know what is going on, we talk about risk and consequences, still they do things they shouldn't. So, if we ask for training, what is it for?

Governance issues

Governance issues were overtly described as corruption by Donarto:

> Now, corruption is going around my village because if you want to speak, they'll give you certain amount of monies – $500 or $1,000 – it's happening now. Write this. Put my name. It's corrosive, it's too much, it's very bad. We need help.

Salote, who was born in one of the villages and educated from secondary schooling onwards in Aotearoa, said that village leadership needed to do more to cater for the education and development of young people. Another way governance was expressed was through Donarto's desire for better government support for community action. Much of the successes in development work done in Bureta was reported to have been done because of community action like buying a bus and building electricity infrastructure, restoring the church – and they it could have been better supported. Donarto also said there was also a lack of rural investment which included not having enough land to plant. He said there was not enough listening to local needs which he saw as an "abuse of community." Fane extended this abuse to how the church spends its money and seeks resources from its members who often do not have the means to give.

Education

Arieta felt that some young people did not fully engage in the education system and said it was hard to articulate why:

> There's something that drags us not to go to school.

While Arieta felt this was more extremely after a cyclone, it was always present. She also said that there is not a bright future for young people in the village. Others felt

that while development, like the building of roads, was good villages needed more investment in education. One young person in the town of Levuka[13], she wanted to go to university after high school because most of her friends were going to get pregnant if they stayed in town. Her mother also wanted her to attend university, so she could get away from the risk of sexual abuse and have a better life than her mother did. Conversely, Arieta felt that there were some in the community who did not encourage the education of girls:

> When I was in the hospital having my baby, there was a young girl giving birth and she didn't have anyone with her. All the nurses were saying, 'Don't go to school, you will be pregnant, go back to the village.'

Jale felt that education was the number one concern of the community, health being the second. He added that many people do not prioritise health concerns.

Being independent

Being independent, doing meaningful work, and not relying on government handouts was expressed by Jale as:

> I just want to be myself.

Jale was part of the men's planting group in Taviya and placed great value on the collective nature of planting and harvesting. He is now planting sandalwood which he says is lucrative. Donarto also expressed a desire to be self-sufficient:

> You can't rely on us being spoon fed all the time.

Having more cash to buy basics was a way to independence but creating the means for this was not always clear-cut. Salote felt that family who lived overseas had an important role in assisting families in villages when it came to aspirations. She said she bought an oven for her cousin to bake and sell buns at PAFCO in Levuka. This act was met with mixed enthusiasm and Salote said there was sometimes reluctance in the village for people to do more to help themselves:

> We don't have an ounce of commercialisation in us, to be honest.

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[13] Name has been omitted to protect because of the sensitive nature of our conversation.

Navigating traditional practice and knowledge and also wanting to enjoy the benefits of living in a modern world were expressed by everyone in different ways. Some people also felt it was important to upgrade the standard of living before addressing climate change. One way navigating a traditional and modern way of life was expressed was through talking about the cost of living: some had left their village to live in Suva but had come back because of the high cost of living there. Salote said that the bright lights and urban drift did not meet expectations. Marrying a *kavalagi* (foreigner) and moving overseas was revered by some as a way to live in a modern way, as was working in resorts on other islands. Although, some felt this created a disconnect within families. Jale expressed the love and desire for life in the village, yet he also wanted his children to leave and be educated elsewhere to have a better life.

Many talked about the low wages from working at PAFCO. These were reported to be FJ$150 for a 50-hour week after tax and transportation costs. Cash received was mainly spent on basic goods like flour, sugar, transport and mobile phone credit. Those from Bureta said were proud of the fact that no one in the village worked at PAFCO as they relied on other sources of income to survive. Concern for low wages or difficulty in obtaining cash income was often balanced with how living in the village was free with plentiful food. Many enjoyed gardening and saw this as one of the key benefits of living in the village, especially the selling of *yaqona* for a cash income.

Suliana from Levuka said:

> Bringing in modern things is fine, but this needs to be tailor made or it's not going to fit.

Most people had cell phones and some televisions. Suliana also said the increase in wanting modern goods is causing unsustainable store credit debt. Many felt that changes to traditional village life were good and bad. Donarto said there was a need to be a community again as a result of modern changes. Fane said there was an erosion of culture because of an erosion of values:

We are miles away from our inner, private value system: courtesy and honesty.

Donarto said that traditional customs were hindering personal freedoms:

The problem with them is our customs are shut your mouth, go to church and don't practice what you believe.

Generally, tradition was seen as positive, but some people said it was an aspect of Fijian culture that needed strengthening.

Gau Island

This section presents *Va* conversations from the village of Nawaikama on Gau Island, in the Lomaiviti District, Eastern Fiji (see Figure 17).

Figure 17: Map of Gau Island, Lomaiviti Group of Island, showing the research locality of Nawaikama Village. Source: Base map, Google Maps.

Gau Island is the fifth largest island in Fiji and is approximately 50 kilometres from Suva. Gau has a population of 2,185. Nawaikama, the site for this research is part of the Sawaieke District along with seven other villages (see Figure 18). Gau Island was not affected by Cyclone Winston.

Many of the conversations in Nawaikama related to the locally-led adaptation projects of Lomani Gau. It was often hard to distinguish what was considered a

climate concern or a development concern because the lines between climate change, adaptation and development appeared largely invisible.

Figure 18: Coastal village of Nawaikama village, Sawaieke District, Gau Island.

Climate change concerns

Cyclone Winston

Conversations about the cyclone were focused around the support role that the villages on Gau Island played in helping other islands in the district. Many talked about how boats came from other islands to collect *yaqona* seedlings to take back to their own villages to plant. Most felt fortunate that they were not devastated by the cyclone and many attributed this to God's plan for them.

Explanations for climate change

Some people knew climate change was a threat but felt they were taking action against it. Although some did not, as Miriama expressed:

> I don't know why there is climate change. I don't know what to do. [The women] are very busy, doing the washing – all things.

Most people did not know what caused climate change, with Milika saying it was because of "smoke from big firms."

Impacts of climate change

The receding coastline and changes to front-line coconut trees was mentioned a few times as a negative impact of climate change, but many felt this was in hand because of the planning of mangroves by school children through Lomani Gau.

The women expressed adapting to other impacts of climate change through Lomani Gau: looking after natural resources for everyone's benefit. They felt this way even if they found some of the activities challenging. Other activities that protected natural resources were articulated as the building of a sea wall, *tabu* fishing areas and replanting trees. Asena talked about the increase of seashells:

> Yes, the *tabu* … it's for five years. Whenever there is an occasion – Fijian ceremony, such as wedding or deaths – we ask the chief if we could catch fish from the Ngamotu, for the occasion. That's how it goes. We don't usually have so many things along the coast, such as the seashells. Nowadays we have so many seashells.

Asena also reported that there were plenty of fish: "There used to be a joke that you'll never eat fish in Nawaikama, but not now." Also, planting trees along the slopes of land to prevent erosion was mentioned by some of the women.

One of the women said that she agreed with activities that helped the natural environment and their futures, but they were busy with domestic responsibilities and sometimes it was hard to do extra activities. When it came to action for climate change however, one woman commented that she didn't know what to do about climate change.

Unseasonably hot weather:

Many mentioned unseasonably hot weather and lack of rain, although no one reported a shortage in water. Some were concerned about earthquakes, especially the increase in frequency. Miriama said that it was generally hotter than usual and that the cycles of nature come in any season through the year. Some of the women equated these to changes to climate change and some did not.

Relocation

Lusiana mentioned relocation because of climate change but said she did not think they had to consider this for ten years. Some people talked about the location of the

original village, on the other side of the bay, and how the village was moved after intense flooding. The college children rest by this area after church to wait for low tide so they can walk home.

Building stronger houses

Many people talked about how they were able to build stronger houses because of the pine plantation and sawmill on the island (see Figure 19). They believed these houses would withstand strong cyclones. They also saw that planting trees and production of pine wood as a way to mitigate the chopping down of native trees, as well as a way to save money because they do not have to purchase and transport materials from Suva.

Figure 19: Partly pine house in Nawaikama Village. Pictured: Milika.

Gender balancing

Many of the women said that Lomani Gau helped them to look at all angles of their lives. Lomani Gau was also seen not only as a group of activities, but also a vehicle to address other issues. Asena said that this project:

> … neutralises gender imbalance in the village.

Others commented that it's often *tabu* for women in Fijian communities to talk openly, but this was not the case in Nawaikama. Most people felt respected by the men, and that men and women worked well together (although one wanted this to happen more). Many said that Lomani Gau makes the women stronger and some joked that women were stronger than the men.

Working communally

Many people talked about how the villages on Gau Island worked together for common goals. This was demonstrated when all the villages on the island purchased a boat to transport them to other islands, including Suva. Lomani Gau was also linked to decision-making. Also, many of the women talked about how they work together to provide lunches for the village's school. Many women gathered to exercise together and played volleyball and netball (see Figure 20). The women were practising for an inter-village sporting day later in the week. This was an initiative from the Ministry of Women, Children and Poverty Alleviation and was communicated through the village's women's group. Most women in the village saw the benefit in regular exercise, even though some commented it was hard to find the time in their day to participate.

Figure 20: Women exercising in Nawaikama village. Photo: Dean Porter

Cost of living

A few people talked about the high cost of living in Suva. Lusiana talked about how she made and sold *sasa* (brooms) and preferred village life to living in the city:

> Many people prefer the city life, most of the people I grew up with. The cost of living is increasing, people need two jobs. Many people move to Suva for education and work. Some go to Suva then come back, they can't handle it, because of the cost of living. Some kids hardly come back to the village. They have their kids in Suva and their kids don't know their roots, their family. I moved back here last year, it's stress-free. In the village you don't need to buy food; vegetables and everything is here. You can survive with everything here.

Other women spoke about the extra income that came from cattle farming on Gau Island. Also, the women said that the Ministry of Agriculture gave them clams to look after for eventually selling the pearls. However, some said that they were unable to look after the clams because they did not have a boat to use. The women made handicrafts and sold them at the National Women's Expo in Suva every year.

Changes to a traditional way of life

Lusiana said exposure to the world is both good and bad but she preferred village life. Some wanted more development because they wanted stronger houses, yet they also wanted to preserve culture and traditional practice, and a peaceful village life. This was expressed through the loss of traditional knowledge. Many people said that

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through Lomani Gau, elders in the village had begun teaching the young men how to mix *kava* as this was a custom that had been lost.

Lusiana wanted more options for employment on the island that were close to the village:

> I have done study in Suva, in hospitality, and have a certificate for housekeeping and front desk. I could work in Viti Levu – my young son's namesake wants to take him, so I can go and work – but I'd like to stay here. It would be good if the resort opens again [in the nearby village of Somosomo].

Many were wary of what negative changes an increase in development could bring to village life. Many expressed that life 'before' was better – cheaper and healthier. Many people said that a communal way of life, especially sharing, was an important aspect of Fijian culture that needed to be preserved. Asena said:

> We know each other here. The Fijian custom is like that, even if you live in this village, if there's a sick lady in another village, you go and see how she is. But the changes are coming through, those things are washing off.

Anaseini talked about life before things became modern:

> Before we had a better lifestyle – cheaper and healthier. Now there's expensive junk food. Our *tukai* [grandfather] and *bubu* [grandmother] didn't have this. Now it has brought sickness. It's up to us.

Some connected development to practices that harmed the environment such as the building of roads. Asena wanted a road to the farm to make life easier, but not at the expense of looking after the environment.

Lomani Gau appeared to cover many aspects of life which Milika expressed as:

> It's about development, caring for the seashore. It's about the future, how to earn a living. It's about daily life, selling things, and about what the village wants.

Summary

This chapter presented *Va* conversations from two case-study localities in the Lomaiviti Group of Islands in Eastern Fiji. Locally expressed concerns were related to climate as well as development. Climate concerns on Ovalau Island were centred on recovery from Cyclone Winston, disaster preparedness and the effects of droughts. Development concerns included unsustainable development practices, corruption at the village level, education, governance, and living with tradition and modernity. On Gau Island, climate concerns from the women in this research were largely centred on the positive actions and outcomes of the locally-led adaptation project Lomani Gau. This included protecting natural resources, gender balancing, alternative sources of income, and working together,

Chapter five: Discussion – *laying the anchor*

This chapter first discusses to what extent has adaptation <u>policy</u> been informed by the locally expressed concerns from chapter four. In this way, these locally expressed concerns represent adaptation <u>outcomes</u>. First, a brief summary of policy frameworks in Fiji will be presented so this can be compared to adaptation outcomes. This chapter then answers the fourth sub-question of 'how might adaptation policy and processes in Fiji and the Pacific more generally be adjusted in order to meet local concerns?' Discussion is supported by literature, conversations from civil society in Suva, as well as cross-context experiences.

Policy informed by local concerns

Fiji's adaptation policy largely looks set to be informed by locally expressed concerns. It is necessary to include development policy in this discussion as adaptation is being mainstreamed into development. Adaptation policy and development policy are also interrelated because it has been identified that the capacity to adapt to climate change hinges on the level of development. Table 4 outlines the major focus for relevant policies, as they relate to this research, which were presented in chapter three.

A full analysis of the policy and processes in Table 4 is outside the scope of this thesis. However, it can be said that the regional and national frameworks for development look set to be informed by local concerns. They focus on increasing adaptive capacity, resilience to climate change and new approaches to development, through local contexts. It can also be said that the national delivery approaches for adaptation largely also look set to be informed by local concerns as they also favour and value local knowledge and contexts.

This section now breaks down whether the above policy and processes are informed by the adaptation <u>outcomes</u> from chapter four. These outcomes will now be discussed by presenting the four major differences and one main commonality of concerns. The main reason for this is that one of the central themes in the literature is that adaptation must be locally-led, bottom-up and context specific – each village has its own unique set of concerns that shape its capacity to adapt and develop.

Table 4: Summary of climate change and development policy frameworks in Fiji

POLICY FRAMEWORK OR PROCESS	A STRATEGIC AIM
Cancun Adaptation Framework	Adaptation that is created by local context and implemented with the effective and full participation of indigenous peoples and local communities
2018 Talanoa Dialogue Platform	Foster stability and inclusiveness in dialogue
Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management 2017–2030 (FRDP)	Enhance resilience to disasters and climate change in context of sustainable development and efforts to eradicate poverty
National Adaptation Plan (NAP)	Enhance adaptive capacity and resilience through local and context-specific planning implementation.
5-Year & 20-Year National Development Plan (NDP)	Encompass new approaches to development and meet the aspirations of all Fijians
The Green Growth Framework	Strengthen socio-cultural education of responsible environmental stewardship and civic responsibility; and incentivise investment in the rational and efficient use of natural resources
Favoured adaptation delivery processes of EbA and CbA	Value indigenous knowledge and other local texts, and local participation

Source: Content is from previously cited policy.

The differences and commonalities of concerns

This chapter has so far shown that, overall, policy has only partially been informed by local concerns. This section now explores the differences and commonality of outcomes from the two islands so that the sub-question of how might adaptation policy and processes in Fiji and the Pacific more generally be adjusted in order to meet local concerns can be answered.

The differences in concerns

Different impacts from extreme weather events provide the first reason for the difference in outcomes from the two case-study localities. The villages on Ovalau Island were affected by Cyclone Winston yet the village of Nawaikama on Gau Island was not. The ongoing impacts of the cyclone were expressed through lack of food and income security, as well as lack of local support for recovery. While the Fiji Government invests in some social protection programmes, these policies may not always best serve local people: the cash given to individuals as disaster relief after Cyclone Winston meant they received a reduction in their future pensions, as well as adding to the likelihood that they would not be able to access funds for future emergencies (Mansur et al., 2017). Disaster preparedness policy appeared to meet locally expressed concerns in both case-study localities, and on Ovalau Island many people felt they were adequately informed and prepared in this area.

The second reason for the difference in concerns from both case-study localities is that Ovalau is considerably closer and more accessible to Suva than Gau Island. Ovalau has regular flights and various ferry options for travel whereas Nawaikama has one weekly flight and ferry services are fewer than for Ovalau. This impacts access to disaster relief, good and services, and contact with government and aid workers. This suggests that the villages on Gau Island are more self-reliant out of necessity. The disparities between 'core' and 'peripheral' islands are a key factor that shapes 'vulnerability' (McNamara, Clissod, Piggott-McKellar, Buggy & Azfa, 2018).

The third difference in concerns can be attributed to what kind of adaptation each island had received and what the outcomes for that adaptation was. People from Ovalau reported they had received adaptation through disaster relief and disaster preparedness education, advice on relocation, money to help rebuild after the

cyclone, and assistance in gardening. People in Nawaikama experienced adaptation more holistically, mainly through the locally-led adaptation project of Lomani Gau (see Table 5). Pacific epistemology is central to the key practice of Lomani Gau, that of "*vakarau ni se siga toka*—prepare while there is still daylight" (Veitayaki & Holland, 2018). This project originated from a Fiji Locally Managed Marine Areas Network programme in 2001 called The Mositi Vanuaso Project, which eventually developed in Lomani Gau. *Mositi* symbolises connection to something that is deeply valued and cherished (Veitayaki et al., 2005). This project is closely linked to community-based marine resource management as it integrates contemporary and customary resource management arrangements (Veitayaki et al., 2018). Learning by doing is favoured over education about climate change in this project. Lomani Gau activities address weak and poor governance, unsustainable use of resources, invasive species, rural development activities and infrastructure use (Lomani Gau committee, 2018). There is now a demonstration centre being built on the island to share project learnings. The project also now seeks to scale-up to test if the goal for activity in one village can inspire an island, and then a district, and then at country level.

Table 5: Lomani Gau characteristics and sample activities.

Lomani Gau characteristics and sample of activities[14]	
Epistemology	*Lomani* (care for, deeply treasure) *Vakarau ni se siga toka* (prepare while there is still daylight) Emphasises values of unity, peace, harmony, respect and compliance
Lessons learnt	o Change takes time o Local development needs to be driven locally o Local development needs must be on the climate change agenda o Strengthen local legitimacy o Seek partnerships and long-term support
Activities	o Planting mangroves and pine trees o Income diversification o Collective governance o *Tabu* (no-take zones) o Relevant training o Sustainable limits on all resource uses

(Source: Remling & Veitayaki, 2016; Veitayaki & Holland, 2018; J.Veitayaki, personal communication, July 11, 2018)

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[14] For Lomani Gau's recent Code of Conduct, see Appendix F.

Lomani Gau has been suggested as a proxy for adaptation by Remling & Veitayaki (2016) because it shares many of the characteristics of community-based adaptation: "Income diversification strategies, efforts to reduce the impact of hazards, capacity development and actions to address underlying causes of vulnerability" (p. 388). One key aspect of Lomani Gau is partnerships that help deliver the goals and outcomes of the project. These partners include local and international NGOs and institutions like The University of the South Pacific, government departments and overseas governments and researchers. The other driver of Lomani Gau is the concept and action of 'learning by doing' agrees with Gegeo's comment on page 49 that often some Pacific communities are given information through purpose and not osmosis.

The fourth explanation for why conversations were different on the two islands is the degree to which people were concerned about basic needs. It was clear that climate was not the first concern on either island, except for those on Ovalau Island still traumatised by Cyclone Winston. People were concerned about more than climate. This included ongoing unsustainable development practice, governance, education, the high cost of living in Fijian cities, corruption at the village level and other governance concerns, sexual abuse[15] of girls, or lack of investment education. Most of these outcomes had not been informed by local concerns on Ovalau island. However, outcomes had been more informed by local concerns in the village of Nawaikama on Gau Island.

Conversations in Ovalau were more concerned with basic needs like housing, water and education, than those in Gau. This could suggest that people's own needs come before concerns for adapting to the impacts of climate change. This could also suggest that concerns are lessened when they are integrated into positive actions towards local development. The standard of living of Gau appeared to be generally higher than Ovalau: many houses had solar energy systems in houses; most of village had footpaths between houses; many people reported income for the village from cattle farming and the island's sawmill (as well as income from *yaqona* sales); and there was a new women's store being built to replace the old one. The women

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[15] It has been a challenging thought process when deciding how to treat the concern of sexual abuse in this research. This is because of societal and my own personal bias towards the enormity of this concern. However, this thesis' methodology does not rank one concern over another in terms of importance or degree of impact. However, is there a personal and institutional academic responsibility to raise a concern like sexual abuse outside the platform of a Master's thesis?

were also given clams to sell which could be attributed to Lomani Gau's strong emphasis on partnerships. Also, many people were engaged in village life and the women attended village meetings, ran the local women's store, and engaged in group exercise. The main focus for Lomani Gau was to put local development needs on the climate change agenda at the same time as climate-proofing Gau Island (Remling & Veitayaki, 2016). This strategy appears to be a successful as a proxy for adaptation.

To ordinary people, meeting basic needs is usually their first priority (Siwatibau, n.d.). Basic needs can be considered by its original intention in early discussion of this framework: a 1978 Overseas Development Institute briefing paper on basic needs which argues for inclusion of participation in decision-making, leisure, human rights, democracy and self-reliance, into the definition of basic needs (Overseas Development Institute, 1978). Lane and McNaught (2009) argue that the only way adaptation strategies will be sustainable is if they provide for everyday needs.

Even though climate is of great concern in Fiji, it is not the first concern of some local people:

> Climate change is a big issue, but people's own needs come first, and these are not being met … If they put it on a scale, their own needs first need to be met, before the need of the community and the culture. (Waqetia, personal communication, July 16, 2018).

Making ends meet is difficult for some in Fiji and some NGOs are calling the rising cost of living a catastrophe:

> The social and economic systems are on the verge of catastrophic change, for which our communities have not been prepared. Since embracing the economic policy of globalization and all that goes with it, we as a nation relied totally on this for deliverance to economic prosperity. The present crisis of cost uprising is the result of this overreliance on one system. We failed to change or inculcate a behaviour change in our people. The corporate sector remained fixed with the idea of growth and profit maximization (para 1) … There is a need to realize the fundamental limits of the 'vanua' or the mother earth and concept of 'sautu', the wholesome way of living (PIANGO, 2008, para 1 & 4).

As a review of literature showed, there has been much discussion over the past decade about whether a focus on development (including basic needs) is required in order for people to adapt, or whether a focus on supporting people to adapt to climate change will help their development. Regardless of how this chicken and egg question

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is answered, it is clear from prolific global and regional attention to climate change (especially the mainstreaming of adaptation into development) that climate can be seen as the main focus of the current development paradigm. This fits with the current approach by the Fijian Government and CROP agencies' mainstreaming of adaptation into development: "The capacity to adapt to climate change is highly dependent on the level of development. This led to mainstreaming of climate change into development" (Vaikai, 2015, p. 29). This means that whatever stakeholders of development (including local communities) are concerned with, so must development.

The strongest commonality in concerns

It was clear that people were adapting to more than the impacts of climate change. There are other processes that affect people's lives (S.Siwatibau, personal communication, September 19, 2018). This was expressed as navigating changes to a traditional way of life because of a desire for more cash and opportunities. Most people were also concerned with how development (even though it was mostly desired) was eroding not only natural resources, but also traditional ways of life. A traditional way of life was generally expressed as being able to live peacefully, being able to live off the land, and care for visitors, family and one another.

"Fijian society is at a crossroads between modernisation and traditionalism. Modern lifestyles based on individual freedoms coexist and sometimes collide with centuries of traditional communal social hierarchies and conventions of behaviour" (SCEFI, n.d.). It is not a case of choosing between tradition or modernity, but a case of choosing which chart guides the merging of these desires. Even though some may experience this as a collision, the seemingly two different worlds exist together. The guide for this merging resides in the valuing of both. Pacific scholar Unaisi Nabobo's (2006) expresses this through metaphors in her work titled, *The coconut tree must be allowed to live with the computer tiger*. This navigation begins with the realisation that rushing for progress has not produced the desired outcomes:

> In our headlong rush for modernity, we have been far too eager to embrace foreign constructs in preference to our own. It is only when the reality has not matched the promise that some of us have begun to take stock and revisit the reservoirs of knowledge and practice that are our heritage (Madraiwiwi, as quoted in Prasad, 2006, p. 4).

The erosion of features of Pacific Islands like access to abundant natural resources and the expression of reciprocity has been viewed through a rush for modern progress lens. The interconnection between food and culture and the ability to practice reciprocity has been upset with the impact of global processes: "Modernisation and globalisation have upset this interconnected balance that has always sustained life in the Pacific, and thus we need to find ways of change while maintaining the best aspects of our traditions" (Duituturaga, 2017, p. 209).

This relational perspective of community development requires a holistic approach: "While it is undeniable that development is for the human being, it should be done from a holistic relational perspective based on the awareness of the interconnectedness of life" (Vaai, 2017). These reciprocity and relational features of Fijian life is experienced in daily lives through the desires and concerns of local people.

The need for reciprocity to inform policies and outcomes can be seen in the story behind Figure 21. This photo shows the early stage of the first mat that Una Bicinivalu from the Ba province in Viti Levu made herself from beginning to end.

Figure 21: Una's first weaving from beginning to end.

The following is an excerpt from my journal after becoming friends with Una:

> *Una shared a photo of her dream with me today. She wants to start a weaving school in her village. She remembered being a kid, watching her mother sell a mat and then hold the cash in her hand. She went back a few years ago to encourage a group of women to set aside a section of* yaqona *crops for themselves, to sell later. She's working through many weaves: land*

zoning, finance, cyclones, and living here but wanting to be there. She's just sent me a photo of a mat she has made. 'It's my first one,' she says, 'from beginning to end, and I read her future between the lines. (Author's personal journal, 2018).

Una's story highlights how reciprocity and desire can produce outcomes. It also shows that the natural environment provides value to Una and the women in the village who, in turn, look after it to yield materials for weaving. This interconnected nature of development (as desired by Una) is also altered by changes in the climate. In this example, changes in climate, the natural environment, livelihoods, gender, and aspirations are interconnected. Ninety-five percent of Una's village in the Nakorotubu district in Fiji's Ra Province, on Viti Levu, was destroyed by Cyclone Winston and is under consideration for government relocation (U. Bicinivalu, personal communication, October 5, 2018). Una's dream, her family, and her natural world are connected. The processes that guide these connections will determine Una's own sense of flourishing and success. Una's story also further argues that the linkages between adaptation and development are invisible. The root causes of Una's success and challenges lies in her ability to achieve her dream and her ability to deal with threats and challenges.

Some see the process of globalisation as the biggest and most urgent threat to Pacific Island people, especially the connection to food:

> An integral part of globalization is technological advancement. In and of itself, technological advancement undermines the cooperative communal way of life. In other words, it undermines the ways in which the community traditionally sits and works together to derive their livelihood from the land and sea resources around them. In a connected world, these ways have been replaced by a dependency on processed foods and reduced activity … (Baba, 2015, para 4).

Baba (2015) further argues that countries must reassess the impact of globalisation on its communities and create policies that assist their communities in fully benefitting from the global process of globalisation (Baba, 2015).

Naidu (2018) advocates for more research from the Global South on the enormity of change that PICS are experiencing:

> … [this] must not be left to so called development experts and consultants, especially those who are located in or come from multilateral organisations

and international financial institutions. Indeed, the strength of Pacific islanders lie in their cultural values or reciprocity, communal ownership of land and natural resources, strong bonds of kinship, and sharing and caring in families, in communities and across national boundaries beyond the 'sea of islands' (p. 41).

Other global processes that are affecting the Pacific are modernisation, globalisation and Westernisation, as they are currently practiced. There are positive and negative effects of these influences, however the responsibility for the negative effects lie both in and outside of the Pacific: "We did exactly what we were taught to do, industrialize, but we didn't do it with responsibility" (Thompson, 2008, as quoted in Ingersoll, 1996, p. 170).

People do have more choice and autonomy as a result of other global processes and this was desired by the people involved in this research, albeit with caution. Another perspective is that to perceive other global processes as an external influence is neocolonial as it denies Pacific people the right to determine their own futures. But progress need not be a rejection of one or the other, but guidance in how to do both.

Levuka on Ovalau Island has been viewed as the epitome of globalisation because it displays many of globalisation's' characteristics such as the inter-linking mechanisms of production, digital communications and global consumerism (Murray & Pene, 2001). Almost 20 years ago, these authors warned that unless there was the "creation of an inclusive planning system that responds to citizens' needs and is sensitive to environmental and cultural impacts of exogenously induced change," (p. 133) Levuka could well face being washed away.

Inequality has become the new focus for global development as poverty statistics around the world show some signs of improvement. However, Perlman (2007) argues that it is rising inequality which is the "dark side to globalization." Income inequality, globally, has increased as a result of globalisation (Firth, 2006) even though there is some evidence that poverty statistics have improved. The United Nations is addressing inequality in goal the of the SDGs. However, the inclusion of this goal was initially met with great resistance from the United Nations. Its inclusion was due to the extensive lobbying from civil society (Hickel, 2017a).

The main common concern from both outcomes, the navigating between a traditional and modern way of life, is partly influenced by the current focus of 'progress' in

Fiji's development plan. It brings into question what epistemologies are informing this development plan, aside from a desire to modernise and grow. Fiji's current Development Plan looks set to do this, however the overall strategy looks more like a 'thrust' for economic growth and modern progress than addressing local concerns of navigating this with the desire to retain the best features of the Pacific, like reciprocity.

Climate change is an ideal lens to highlight how people are adapting to navigating changes to traditional lives as climate change acts as a trigger for existing inequalities and concerns. This was especially seen in how people were able to recover from Cyclone Winston and more worryingly, how they will recover if another one strikes. When the topic was raised during this research, it was met with perplexity.

Therefore, adaptation must involve itself with the root causes of other global processes that impact on this ability for people to not only recover but continue to adapt. Creating real and effective solutions can only happen if the root causes of great problems are examined (Hickel, 2017b). In the context of climate change, this requires taking a step back to look at the fundamentals of climate change. Climate change has been argued by the former Head of Independent State of Samoa as "fundamentally … a problem of arrogance and greed" (Tui Atua, 2018) and not solely one of climate change. In this way, climate change "becomes absorbed into the combined effects of globlization" (p. 2).

Nolet (2018) similarly expresses this through her work after the 2012 floods in Nadi, Fiji:

> At the community level, the floods appear to have revived a longstanding debate about the proper limits to development and Westernization, and the balance to be achieved between the 'way of the land' and the 'way of money.' For some, the floods even represented a violent reality check, reminding Fijians that caring for their environment, ceasing to fell and burn forests indiscriminately, had become a crucial challenge. This is far from leading to a general rejection of Western forms of economic development: in the Nadi area, tourism is even considered to be a recovery tool and an asset in coping with the current environmental threat. Nonetheless, some pleaded for better political control of local and foreign companies and for the development of community-based enterprises, which would preserve some key aspects of vanua (p. 60).

It was identified in the 1980s at the Pacific Islands Development Programme conference that Pacific societies saw an increase in economic sophistication which began to encourage individualism (Lasaqa, 1985). This weakened tribal ties which was identified as the biggest cost for Pacific societies. This weakened tie to reciprocity and traditional forms of connection is also experienced in cities. In Suva I gave a woman a ride home one day when I saw her standing at an uncovered bus stop in Suva's torrential rain. We ended up talking about her cousin who was experiencing domestic violence in Suva:

> *She's telling me about her cousin who was beaten by her husband. Her cousin didn't want to leave the family home with her three children because she had nowhere to go. I ask the woman if her cousin has family in Suva. She said she does, but no one needs more mouths to feed. There's no residential women's refuge here in Suva: but there are a dozen shiny yellow mini school buses, still wrapped in plastic, with 'Donated by China' painted in bold black, parked neatly behind a barbed wire fence: surely someone could trade a couple of buses for a place to stay* (Author's personal journal, 2018).

While it is clear that many people want some aspects of their traditional customs to remain or be strengthened, tradition is not a panacea for community-adaptation but an opportunity for, as Siwatibau (n.d.) has highlighted, something better. Not all traditional customs are heralded as valuable and desired in today's world: this includes the customary exclusion of women and youth from aspects of life like formal decision-making – which Veitayaki and Holland (2018) say is detrimental to adaptation. Keesing (1989) argues that a romantic view of traditional cultures being in harmony with the environment is a western construct. It could also be a romantic notion that life in Suva will be better than that in the village.

The Pacific is modern and has benefited from aid and other global processes. It is up to the Pacific to navigate this as much as it is for the rest of the world to look at their own role in propagating the processes that cause concern for local people. The Pacific can and must be experts in both tradition and modern practices (Veitayaki, personal communication, July 20, 2018). There are second and third generations of Fijians being born in cities, some disconnected from their genealogy. Is a 'thrust for progress' driving their 'development' and does this meet their concerns and desires?

<u>Adjusting adaptation policy</u>

So far, this chapter has argued that people were concerned about more than climate. These other concerns have been attributed to a concern for basic needs and navigating a traditional and modern way of life. This section now considers how adaptation policy and processes in Fiji, and the Pacific more generally, might be adjusted to reflect this more diverse set of concerns.

Improve rebuilding support after extreme weather events.

The rebuilding of both homes and community infrastructure could be diversified to reflect concerns. This includes addressing the inequities found in rebuilding after extreme weather events. About a quarter of all Fiji schools that were damaged from the cyclone are still not rebuilt, two and a half years later (RNZ, 2018c). This requires a deeper understanding and valuing of what community spaces mean in different contexts, to different people. Additionally, consideration for location and organisation of original village sites could provide opportunities for relocation, instead of relocation only being a reaction to unliveable low-land living areas.

Local communities deciding what their basic needs and development concerns are

The reciprocity between climate, food, and social and cultural obligations, should be considered a basic need in a Pacific context. The ability to provide for the visitors is a fundamental aspect of Fijian life that is under threat with global processes, triggered and intensified by climate change. Generally, many rural Fijians have low cash incomes and are heavily dependent on natural resources to meet their basic needs of fresh water, food and shelter. As these resources change over time, so do basic needs. This argues for basic needs to be not just be about food, shelter, education and health, but for basic needs to be defined by locally expressed values and concerns.

Basic needs are inextricably tied with equality as was seen in the settlement of Baba in Levuka and the decrease in rebuilding support they received. Also, building their community gym was an expression of culture through the legacy of weightlifting and yet did not appear to be supported by policy or outcomes: the gym kept young people out of trouble by giving them something positive to focus on. Experiences in

Baba are political because of the poverty and injustice Melanesians have experienced since their arrival in the 1960s (Halapua, 2001).

An understanding of what people value is critical in deciding what their needs are, which has been argued for in various ways, including the fiscally poor but spiritually rich comment in Levuka on page 51. Gibson-Graham's diverse economies framework (2008) highlights that 'value' has diverse perspectives: "… 'marginal' economic practices and forms of enterprise are actually more prevalent, and account for more hours worked and/or more value produced, than the capitalist sector" (p. 617).

Local understandings, especially those related to values and wealth, are crucial as the complexity of adaptation is being determined. This is also important as adaptation is being mainstreamed into development: adaptation must be concerned with what development grapples with. This includes reducing inequalities and increasing the standard of living. But the global definition of poverty may not represent all Pacific definitions of wealth:

> We [Tebtebba] are trying to redefine wealth to include what we value most: a healthy life, healthy food, a healthy planet. We would like to replace the dominant accounting system with one that factors in the things we value most, including security of land tenure, cultural diversity and traditional knowledge. GDP[16] does not include these things (Tauli-Corpuz, as quoted in Hamlyn, 2011, p. 11).

Policy that allows for locally-led adaptation

As the literature showed, a key driver for successful bottom-up adaptation is that it should be more than just based in a community, it should be *led* by the community at all stages. A good example of this is the project Lomani Gau on Gau Island. Here, the local community, through the Lomani Gau committee, is responsible for education and activities that benefit the island and its people. As literature in the background chapter argued, community-based participation does not always create relevant outcomes for local people. Another way has been put forward by Dodman & Mitlin (2013) who argue that considering the lessons from participatory development

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[16] Gross Domestic Product

is fundamental for adaptation. In addition, strategic-localism to support locally-led solutions is required.

Diversifying the definition and actions for adaptation

The background chapter argued that the focus for adaption is too narrow as it largely focuses on technocentric or physical environment solutions. Even though it aspires to address social and cultural concerns, this is not always reflected in outcomes. Adaptation must be broadened and diversified to include the breadth of locally expressed concerns that exist in communities. People are adapting to other global processes other than climate change: community-adaptation is a more relevant and diverse definition of adaptation that will better meet local concerns. The lines between climate change, adaptation and development were largely invisible in Nawaikama, suggesting that the definition of adaptation needs to include other concerns and dimensions of life.

Community-adaptation as a concept is not new: O'Brien and Leichenko (2000) discuss a double-exposure framework to investigate the stresses of globalisation and climate change together to reveal a new set of winners and double-losers. However, in a Pacific context, the authors' term of 'double-losers' does not acknowledge Pacific epistemology that also sees wealth through reciprocity and relationality. It also does not acknowledge existing alternatives to the very system that people are seen to be losing or winning in. Further, the term does not counterbalance the climate victim and 'vulnerability' narrative that comes with adaptation which denies Pacific people self-determination. Perhaps a better way to deliver 'winners and losers' in a Pacific context is put forward by Indian activist and scholar Richa Nagar when she talks about "who is being celebrated and who is being silenced" (Nagar, 2018). This may speak to the disparity to what is being felt at the local level and what is aspired to at the global and national policy level. Community-adaptation may be an opportunity to ask the difficult questions which some the conversations from this research reveal. Interestingly, it can be argued that policy can also be driven locally which is demonstrated by Lomani Gau's Code of Conduct which mandates strategy and action for the island of Gau (please refer to Appendix F on page 155 for this Code). In Lomani Gau's case, both policy and outcomes have largely been informed by local concerns.

The diversifying of adaptation to community-adaptation would reflect wider concerns so they can inform policy and outcomes, whether they are related to climate change or not. This definition also implies that the solutions created and implemented from these concerns arise from the community itself. In this way, participation or participatory community development will stay grounded in the localities in which they are defined. A good example of this was the research locality of Nawaikama through the project Lomani Gau. This community is building stronger houses from the island's sawmill as well as creating processes to address wider community concerns like gender balancing and teaching young people to participate in cultural ceremony like mixing *kava*. This gender balancing and bringing young people into the fold addresses existing inequalities that exist in communities and therefore address the underlying causes of 'vulnerability' as well as increasing adaptive capacity.

There is global action against climate change and Young (2003) insists that current passion for climate change must be matched with action against the inequities in the world. Community-adaptation implores that local concerns about the injustices of other global processes are also heard. The mechanism for this is what kind of development is being delivered in Fiji, for whom, and is it possible to deliver better outcomes for local people in the current development paradigm: "You can't win when the game is rigged. What if we changed the rules?" (ActionAid International, n.d, para 1).

Adaptation as opportunity to rethink development

This section presents adaptation as an opportunity for development. This aims to extend the arguments for how might adaptation policy and processes in Fiji and the Pacific more generally be adjusted in order to meet local concerns.

There is no doubt that some local Pacific voices have been ignored in each country's development pathway. These voices have been articulating their concern for this pathway for decades, which can be seen in the following poem *Coming On* by Solomon Island poet Celestine Kulagoe (Kulagoe, 1975, p. 13):

A right foot forward,
    a left foot,

<pre>
                        eager reluctant bare feet
        faltering
        quickening
        halting,
                yet coming on
            bolstered by booted feet
        echoing along Development-Pathway
</pre>

Many Pacific island countries have a mistaken belief that the political and economic systems they had in place before The Global Development Agenda grabbed hold could not deliver growth: this leaves no room for alternative thinking (Pacific Council of Churches, 2010). Much of the literature and action that links adaptation and development is reflective of developmentalist paradigms (Ireland & McKinnon, 2013). "If we want control, we need to critique the dominant model, starting with ourselves and asking: development for whom?" (Penjueli, as quoted in Hamlyn, 2013, p. 25).

Community-adaptation gives hierarchy to local lives and so presents an opportunity to reprioritise Kulagoe's earlier poem of development. In the context of development, climate change has been argued as a trigger for the impact that development and other global processes have on communities, so it presents an opportune time to use this trigger to examine what is meant by development, and for whom. The adjustment for adaption policy lies in rethinking development: adjusting adaptation policy within the current development paradigm may not create, as Siwatibau defines, 'appropriate development' which is a "chance for something better" (Siwatibau, n.d., 2018, para 7).

Literature already shows that the refuting of Western models of development highlights this opportunity for community-adaptation. This begins with who is defining development. In her work, Siwatibau (1997b) argues that the reason why so many people miss out in development agendas is that they were never asked to define what development is in the first place. There are many Pacific frameworks that articulate what development is, especially in other disciplines like health and education, which leaves room for development to do the same. This can be seen in the renaming of education concepts to frameworks like, "flourishing as ourselves" (Sanga, 2018).

Community-adaptation also provides an opportunity to rethink development because it has the potential to identify and action the root causes of inequality and undesired community outcomes. This is presented in the literature as a more radical and transformative enquiry into adaptation which addresses the root causes of 'vulnerability' to climate change. This narrative was unpacked by Kelman in 2014 when he argued that the root causes of inequalities needs addressing in adaptation:

> The fundamental challenge is not so much addressing the hazard of climate change per se, but why SIDS peoples often do not have the resources or options to address climate change and other development challenges themselves. In this regard, climate change brings little that is new to SIDS which continue to be marginalised (p. 120).

Building resilience (including tackling gender and political issues) to the impacts of climate change, then, has the potential to create transformative change. But conversely, adaptation without care can have the opposite effect. This can include denying deep cultural and political roots that hinder change.

Diverse economies authors Gibson-Graham (2008) articulates considering the root causes (so in Fiji's case, the 'vulnerability' to climate change) unhelpful:

> … it seems that we need to become new academic subjects to be able to perform it. At present we are trained to be discerning, detached and critical so that we can penetrate the veil of common understanding and expose the root causes and bottom lines that govern the phenomenal world. This academic stance means that most theorizing is tinged with scepticism and negativity, not a particularly nurturing environment for hopeful, inchoate experiments: We are interested in ontological reframings that increase our space of decision and room to move as political subjects by enlarging the field from which the unexpected can emerge (p. 618).

Sanga's value of 'flourishing as ourselves' sees people articulate their desire to express their culture as well as benefit from new opportunities, like the story about Una and her desire create opportunities through traditional weaving. Pelling (2011) proposes that it is the values that drive inequalities in development that needs to be reformed. Penjueli (as cited in Hamlyn, 2013) has been argued that the current development model in Fiji weakens some features of culture, like reciprocity and traditional forms of connection to land and people. Fane mirrored this when spoke with me about how some Fijians are removed from their inner value system. And as the background chapter argued, some go as far to say that the current development

model has failed in the Pacific. Lasaqa (1985) articulates this as the weakening of the "cohesive nature of Pacific societies" (p. I-A.5) through the growth of the individual. This has originated in the loosening of certain traditional aspects of Pacific life, partly due to the desire for income (Lasaqa, 1985). At the heart of community-adaptation is valuing the reciprocity between people, resources, environment and development and assisting communities to navigate this with a desire for other opportunities.

Naidu (2018) uses reciprocity as an example of this:

> … PICs have dualistic economies comprising cash and subsistence; the term hybrid societies has also been used. Simultaneously there has been conservation and dissolution of Pacific modes of production and social formations. Pacific values and institutions that maintain the promote reciprocity, sharing and caring across communities, and especially in sustaining the most vulnerable are fundamentally human values (p. 38).

Community-adaptation also offers an opportunity to counter the negative aspects of the 'vulnerability' discourse which continues to chart adaptation and development. Concentrating on Una's desires and not her village's 'vulnerability' after the cyclone is advantageous. Community-adaptation sees Pacific Islanders as communities who decide what they want for themselves – both traditional, and modern – and who they partner with to support them, if anyone. Academic and participation expert Robert Chambers (1997) argued for the reality of local people to come before development practitioners in his book, *Whose reality counts*? (Chambers, 1997). Adaptation presents an opportunity to go beyond 'participation' as it has been practiced before: instead of local people participating in the adaptation and development projects from outside, community-adaptation allows them to drive their own development through their own definition and actions. In this way, community-adaptation includes the potential for resistance grass roots ideas and action (Escobar, 2011).

Another way community-adaptation can counter 'vulnerability' is through a postdevelopment perspective of illuminating alternatives. Ireland and McKinnon (2013) scrutinise community-adaptation approaches through a postdevelopment lens "to see nascent possibilities for adaptation that are already unfolding in diverse localities" (Ireland & McKinnon, 2013, p. 158). Adaptation is presented as either being used to "… open a space for new practices and imagine of alternatives"

(Ireland, 2012, p. 92). This route into adaptation provides an opportunity to rethink what world views inform community-adaptation. This can be seen in the assumption of the 'vulnerability' of the small island states of the Pacific and its people; Hau'ofa (1993) puts forward an alternative view of an island-centred understanding based on an alternative perspective of relationship and impact. He challenges the myth that the Pacific Islands are powerless, small and isolated. Instead, Hau'ofa offers the strength and magnitude of Pacific pasts, say that, "Their world was anything but tiny. They thought big and recounted their deeds in epic proportions" (p. 7). The isolated narrative of the Pacific is suppressed by Hau'ofa's inspirations for Pacific people to redefine the change that was upon them based on what already exists.

Indigenous alternatives are required for adaptation (Curry, 2003; Farbotko & Lazrus, 2012) and community-adaptation presents this opportunity. But rather than offer indigenous 'alternatives' as an alternative to a hegemonic non-indigenous mainstream, indigenous here is offered as the centre and sitting point for development. Pacific ways of knowing and doing have always existed, including adapting to changes in climate. Listening to local voices as grassroots discourse changes development discourse (Pieterse, 2000; Hau'ofa, 1993).

Summary

Even when the concern was climate, adaptation outcomes have largely not met the locally expressed concerns from the two case-study localities. The reasons for this have been explored by looking at the differences and commonality in concerns. The differences include the proximity to Suva, how each island was impacted by Cyclone Winston, whether people's basic needs had been met, and what the nature of adaptation processes and outcomes were. Basic needs were more met in the village of Nawaikama on Gau Island and adaptation activities were well supported. This can be attributed to the locally-led project, Lomani Gau, which suggests that it is difficult for people to adapt to climate change if their basic needs are not met.

The one commonality of concerns was navigating changes to a traditional life and desire for more cash and opportunities. It was clear that people were adapting to more than just climate change, that they were also adapting to the impacts of other

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global processes that were affecting people's lives, especially the ability to express one of the best features of the Pacific: reciprocity. The focus for adaptation is too narrow and must be diversified so that local concerns can be valued. Diversifying and redefining community-adaptation has been suggested as way to achieve this. Community-adaptation is also an opportunity to rethink development so better outcomes for local people can be achieved.

But where does inspiration and foundation for the protection and flourishment of the best features of the Pacific that are being lost in the current climate-change development paradigm come from? The next chapter explores this enquiry.

Chapter six: Conclusion – *arrival*

This chapter first provides a summary of discussion so far. It then answers the final sub-question of, 'How might a Pacific epistemology foster community-adaptation and local development?' Lastly, further research questions and closing thoughts are presented.

The Pacific experiences significant physical impacts of climate change. Globally, the Cancun Adaptation Framework mandates that adaptation must receive the same attention as mitigation. Cancun also recognises that effective action in adaptation requires effective participation by local communities. Adaptation approaches in the Pacific favour community-based and ecosystems-based adaptation projects whose narrow focus does not always address the root causes of inequality or local concerns. This is vital as adaptation is mainstreamed into development.

This research has revealed that Pacific policy landscape largely looks set to be informed by local concerns, but their aspirational aims are not always reflected in outcomes for local people.

Climate was not always the first concern for most people in this research. This has been discussed by considering the differences in research findings from the two localities and one strong commonality. These differences were due distance from services in Suva; exposure and recovery to extreme weather events; the nature of adaptation action; and to what extent basic needs had been met. People are less likely to consider climate change if their basic needs are not met. Basic needs were met more in the village of Nawaikama on Gau Island which can be attributed to the locally-led adaptation project of Lomani Gau. This project puts development needs on the climate change agenda is grounded in Pacific epistemology.

The main commonality between the two localities was that they were both navigating changes to a traditional way of life with the desire for more cash and opportunity. People were adapting to more than climate change – they were also adapting to other global processes like globalisation, modernisation and Westernisation. Even though Pacific people enjoy and want more cash and opportunities, this was hard to achieve with Fiji's high cost of living. The promise of modernity has also caused the erosion of the best values and features of Fijian

culture like connection to natural resources and the expression of reciprocity. The 'thrust' for progress in Fiji's national development plan is at odds with the expression of reciprocity and other values. Reciprocity is an important social model that can turn new possibilities into resources of all kinds.

Adaptation policy and processes in Fiji and the Pacific can be adjusted to meet local concerns by improving support for communities after extreme weather events; allowing communities to decide what their own basic needs are; and allowing for processes to be community-*led* and not just community-*based*. Also, assuming that projects will be successful just because they are being undertaken at the 'community' level effectively ignores key elements of the social context, power relations, elite capture and changing traditional norms.

The focus for adaptation is too narrow. Adaptation must address the underlying root causes of inequality and inequity so that mal-adaptation does not occur. Climate change acts as a trigger for existing concerns, making climate change an ideal lens to address local concerns. Community-adaptation has been suggested as a more diverse and holistic way to define and deliver adaptation.

Finally, adaptation provides an opportunity to rethink development and reveal and re-centre indigenous alternatives. This following question must now be asked: 'Who is defining development and development for whom?'

Fostering community-adaptation through Pacific epistemology

This thesis now moves towards solutions by answering the final sub-question of, 'How might Pacific epistemology foster community-adaptation and local development?'

The elements in the conceptual framework for this thesis, Pacificscape, are equal in order to create the best outcomes for Pacific people. But in reality, these elements are not currently equal. The current Pacific adaptation and development paradigm favours physical solutions, economic progress and narratives that compound 'vulnerability' discourse. The Pacific (people, land, ocean – and the reciprocity between) must be prioritised and supported: Pacific epistemology creates this space for privileging Pacific was of knowing and doing.

The suggestions for how policy and outcomes can be adjusted have largely been based on adjustment within a Western epistemology for adaptation and development. Applying a Pacific epistemology opens and diversifies the opportunity for community-adaptation. Gegeo (2018) defines Pacific epistemology as the desire to be oneself. More specifically, this author also defines Pacific epistemology as "… a cultural group's ways of thinking and of creating and reformulating knowledge, using traditional discourses and media of communication, and anchoring the truth of the discourse in culture" (Gegeo, 2001, p. 493).

Ingersoll's (2016) seascape epistemology aims to produce knowledge for the desire to be oneself. This resounds in Crook & Rudiak-Gould's (2018) expression of climate change as a contemporary amplifier for Pacific epistemology to lead the way for living climate change. By accepting climate change as inseparable from how Pacific people see and want to be in the world due to their connection with natural resources, Pacific epistemology must be the starting point for any community-adaptation. Pacific people 'live' climate change – they do not consider it as an extra issue, or something that changes what they already know. They do not decompartmentalise its impacts from the rest of their lives. This interconnection is the basis for "a different paradigm and a distinctive Pacific contribution" (Crook & Rudiak-Gould, 2018, p. 2) to adaptation. This paradigm includes Pacific peoples to be "relied upon to creatively respond to climate change through the cultural resources of their own life principles" (p. 2). This fostering of connecting themselves to their natural resources and life principles will be the foundation for adaptation planning and process.

Pacific epistemology can also foster community-adaptation and local development by creating not an alternative epistemological foundation for community-adaptation, but an existing, lived epistemology. So, in this way, Pacific epistemology is only an alternative in the sense it is different to the hegemonic epistemology that is driving policy and outcomes. It is intimate and holistic, relational and visceral (Overton, 2018) and has always been present. This expression of epistemology has continuously charted its own waters in adaptation and development and is demanding more territory as it contests for space in a globalised world. The clearing of space for Pacific epistemology is important as "incorporation of Oceanic

knowledge is critical to developing appropriate policies … and at the centre of climate change understanding and action" (Overton, 2018, slide 8).

Talk about re-envisaging of the Pacific is ironic, as the Pacific has always been 'visioned', often in a way that has sustained itself. Many other Pacific scholars and civil society organisations and individuals have called for the Pacific to construct their own realities. Hau'ofa (2008) warned that if Pacific people fail to do so, "People will do it for us" (Hau'ofa, 2008, p. 60). This visioning enables the unsayable to be said by reflecting on Pacific world views through stories and metaphors (Tui Atua, 2018). These metaphors hold values and visual references, carried forward through oral traditions and spaces. Tui Atua (2018) explains 'unsayable' as what can be hard to say in front of climate and other 'experts' because it is metaphorical and visual and steeped in tradition. But he argues that this is his offering towards a different development paradigm. He demonstrates this through the Samoan legend of Sina and Tuna:

> The metaphors of this story emphasise sacrifice. Arrogance is self-indulgence; greed is self-aggrandisement. Both are inimical to sacrifice. Tuna, despite being rejected, was able to rise above anger to leave a legacy of grace and humility. The coconut is tapu because it is reincarnation and when we eat the flesh of the coconut that is communion. Tuna as eel and as coconut tree demands a psychology whereby fish, plant and human are treated as co-inhabitors of the planet and actors in a common culture, where their desires and destinies are intertwined. When Tuna's head is buried in the earth there is connection with mother earth. Tuna's sacrifice brings blessings. The message is that what is good, decent and wholesome is spawned by sacrifice (p. x).

Pacific epistemology can also foster community-adaptation and local development because it holds the strongest value that underpins Pacific society – relationships:

> The relationality at the heart of Pacific cultures offers such a framework [for development]. For Pacific Island communities, the meaning of life, economy and environment is centred on relationships – in families, vanua and church, with land and the sea, and in our utilisation of natural resources to support communal and reciprocal obligations (Duituturaga, 2017, p. 209).

Pacific epistemology's challenge to colonisation

Pacific epistemology challenges other global processes apart from climate change like the contemporary expression of colonisation, both external and internal, which

continues to influence the ability to 'be oneself'. Gegeo (1998) brings in considerations for the change that colonialism brought to Pacific peoples' lives:

> Both old and young speak of their concern that what remains of the indigenous mode of production is in serious danger of being displaced and replaced by tua'a 'ani mani or fanga'a 'ani mani 'capitalism' (literally, 'life {determined by} money' or 'eating {ie, con-sumption} [sic] with money (p. 291).

Va'ai (2017) argues that "the people's wisdom and knowledge traditions have to be incorporated into development plans or else what we claim to be sustainable development will be just another form of colon*i*sation [authors original emphasis] (p. 229)." In Lopesi's (2018) book, *Great Divides,* she discusses various Pacific authors' views on naming the region in their own way, other than the Pacific which has imperial and colonial roots and overtones. Lopesi advocates for using "Moana" as other ways of expressing Pacific people has been forced from outside instead of created from within. She acknowledges the work of Dr Hūfanga Okusi Māhina, Kolokesa Uafā Māhina-Tuai and Dr Tēvita Ka'ili, who "advocate for the use of our own words (such as Moana) over those words forced on us (such as Pacific)" (Lopesi, 2018, p. 131).

Va'ai (2017) also argues for a decolonising of Pacific minds. This is visually represented by italicising the 'i' in colonisation:

> For me, the more dangerous colon*i*sation [authors original emphasis] is that which we reinvent and breed within ourselves, within our homes and within our thinking processes, shaping the system to benefit the desires and the interests of the 'one at the expense of the 'many' (p. 222-223).

Hau'ofa (1993) too also warned of an elongated, internalised state as a result of myths created by others about Pacific people in the current global system:

> Belittlement in whatever guise, if internalised for long, and transmitted across generations, could lead to moral paralysis and hence to apathy and the kind of fatalism that we can see among our fellow human beings who have been herded and confined to reservations (p. 6).

Varani-Norton (2017) further argues that "the mantra of government since colonial times emphasising cultural preservation has discouraged critical self-conscious awareness amongst the iTaukei. There has long been a large gap between what is

asserted to be ideal and people's lived reality" (p. 142). There is no denying that poverty alleviation is critical, but Namosimalua (2010) argues that these would be futile if people themselves did not aspire to be economically independent and self-reliant.

Pacific epistemology has been articulated in the thesis title as well as through its content: 'I just want to be myself' as the space for change that must be claimed by the 'I'. It must then be imagined and defined by local communities and those who support them. The only aim of those who are *for* the Pacific is to support this space and fulfil our neighbourly duties.

Examples of Pacific epistemology in action

Postdevelopment is sometimes accused of whimsical aspirations without concrete, achievable action. To counteract this – as well as to highlight Pacific ways of knowing and doing that have previously sustained a Pacific way of life – this section now highlights practical examples of where Pacific epistemology charts the course for action.

Pacific metaphors and world values can be seen in many examples of how Pacific epistemology has already been applied across the region. Traditional Pacific voyaging is an example of how Pacific epistemology can inform community-adaptation as well as mitigation against global warming. Pacific voyaging is being used as a mode of merging the past with the present, especially to drive debate and education around climate change. Uto ni Yalo is an example of this (see Figure 22) and are based in Fiji (Uto ni Yalo, n.d). Their *vaka* are crewed by Pacific Islanders, many young, who traverse the ocean bringing attention to revival of Pacific culture and sustainable ocean transportation.

Figure 22: Uto n Yalo Pacific voyagers, based in Fiji. Source: Uto ni Yalo.

This integration of tradition and modern is connected with climate change and ocean stewardship. Pacific thinkers have long advocated the ocean and the reciprocity around it to champion development on their own terms. Pratt and Govan (2011) present Oceanscape as a vehicle for ocean policy, saying:

> In our Pacific Islands Ocean Region, the ocean unites and divides, connects and separates, sustains and threatens our very survival. For all those who venture within this, the world's largest ocean, and who have made it their home the ocean influences every aspect of life (p. 7).

Reciprocity between the ocean and customs as a source of sustenance, wealth and community (and therefore development) are seen in Teweiariki Teaero's (Teaero, 2007) poem, *Join me*:

> Come tekateka on my mat
> It is badly soaked in sweat
> For my life is hard indeed
>
> Come eat my takataka
> There is precious little else
> For my stock is finite
>
> Come hop on my waa
> Join me on my journey
> On my ocean of dreams
>
> Come see my unique katei
> Elegant like the many royal nii
> Deep and wide like the ocean
>
> In my katei lies my wealth

It defines and sustains me
The true measure of my being[17]

Newell (2018) demonstrates the way Samoans coped after extreme weather events through: "It is Not 'I' but 'We'" (p.96). This phrase articulates the strength of family connections as a tradition of adaptability. This author also presents the views of Talking Chief" who advocates that the Samoan *fale* (house) is the safest house when addressing the impacts of climate change (see Figure 23).

Huffer and Qalo (2004) argue that we have all been thinking upside down: translation of *vanua* principles should replace development jargon, and that ethics of self-reliance and alternative economic development is needed. This alternative can be seen in the cultural practice of gift exchange as socioeconomic practice in Papua Guinea (Curry, 2003). Another example of how the translation of vanua principles has been used in action is Unaisi Nabolo-Baba's Vugalei Fijian Epistemology Pacific framework (2008). This framework has an education focus but it is an example of how concepts such as *vanua* present a Pacific way of knowing as holistic and relational.

Figure 23: *Fale* structure. Photo: Newell (2018)

A epistemological and pedagogical framework is proposed by Varani-Norton (2017) by using a holistic *masi* (cloth design) framework (see Figure 24) for better

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[17] *Tekateka*: sit down; *Takataka*: copra, dried flesh of the coconut; *Waa*: canoe; *Katei*: customs; Nii: coconut tree. This poem is included with the permission of the author.

understanding and reconciling the tensions between Western knowledge and indigenous knowledge:

Figure 24: *Masi* design. Photo: Varani-Norton (2017)

> The framework, with its divisions representing the flow of information from a non-Indigenous to an Indigenous vanua, depicts a process of scrutinising the 'baggage of new knowledge to filter out 'ill-fitted' aspects that are discordant with the old, or to reconcile the old and the new. The process involves epistemological reflexivity to ensure the outcome is sustainable. This process also requires the learner to self-examine by questioning her motives, beliefs, experiences, and interest (p. 143).

The Sufficiency Economies Approach advocated by the Indigenous Peoples' International Centre for Policy, Research and Education is also argued as an alternative, which places limits of economic gain for sustainability and respect for human rights (Hamlyn, 2013). Va'ai (2017) also advocates for a "less is more" development paradigm of life and offers how the current development paradigm of "more is better" would look using this perspective. This alternative model giving is practical, and reciprocal as opposed to one-way, development is shaped by indigenous relational sustainable paradigms to meet the needs of the community, and not controlled by global economic models designed to meet the criteria and interests of financial institutions (p. 227). This author also argues that the current "more is better" paradigm is depriving locals of basic needs.

Closer to home, examples of how indigenous epistemology can inform policy and outcomes can be seen in some Aotearoa cases, as Salmond (2018) presents:

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> If people and environment, culture and nature are not divided in ancestral ways of being in the Pacific, neither are mind and matter, theory and practice. Engagements with Pacific forms of order are not just thought experiments, but also inform legal frameworks and practical action. In New Zealand, for instance, as part of the Treaty of Waitangi settlement process, both the Urewera, the ancestral territory of Tūhoe people, and the Whanganui River have recently been recognised as legal beings in their own right, with their own entitlements to health and well-being (p. 158).

Modern epistemology

The layers of a 'modern' epistemology could further foster community-adaptation and rural development because it recognises that people in the Pacific are adapting to other global processes than climate change. Rupeni from Arovudi village saw the value in the traditional village site on the hills behind the village, yet he said others would see this as a backwards step. But this can be seen positively as 'progressing with the past' (Clarke, 1990, p. 245). Modern epistemology that is rooted in traditional knowledge and ways of being in the world need not conflict with living a modern world. It merely provides a driving and non-competing reason for living, or a change for something better. Modern epistemology is deeply connected to flourishing and being oneself.

Ingersoll (2016, p. 35) argues for a *modern* seascape epistemology that requires the uncovering of an emotional feeling that expresses a relationship to place that is more than physical:

> A modern indigenous epistemology anchored in a contemporary indigenous interpretation of the seascape requires layers. The interviews and art included in this work help to engage our senses, mimicking as best as possible a reproduction of the knowledge within seascape epistemology (p. 35).

As the people in this research have highlighted, and as the literature has shown, balancing a traditional and modern way of life is imperative to sustained life in the Pacific. While Pacific people want more cash and opportunities, many do not want this at the expense of the best features of their culture, like the expression of reciprocity. A Fijian way of life is both traditional and modern – that is the new Pacific.

The theme of 'I just want to be myself' is mirrored in the current Pacific research paradigm. At the New Zealand Oceans & Islands: A conference for Pacific Research,

in November 2018, Pacific scholar Dr David Gegeo argued that two epistemic communities must work together – university and the village (Gegeo, 2018). He highlighted for those involved in Pacific to "bring your own seat and paddle and you be yourself" (Gegeo, 2018[18]). He also expressed this as: "Being ourselves in spaces we used to be strangers in" (Sanga, 2018[19]). Also, at this conference, Dr Kabini Sanga likens new developments in Pacific research that are informed by Pacific epistemology as a new frontier, an unchartered territory – one that offers "ideas on patterns, concerns, opportunities and possible futures for indigenous Pacific research and intellectual frontiering" (p. 21). These Pacific thinkers are advocating for Pacific epistemology to further inform policy and outcomes by expanding and deepening definitions and practice, as identified by Pacific people.

It is an epistemology concern that people can express their culture as well as fulfilling a desire to participate in a global world; this thesis has shown that the values like reciprocity are Pacific features that must be revived and protected in adaptation. Modern epistemology would foster community-adaptation and local development because it is a representation and panacea for local desires and concerns.

Further research

Climate change is a vast arena and yet discourse is still largely focused on its physical impacts. An appreciative enquiry methodology would identify other locally-led models of change who address more than the physical side of adaptation, like Lomani Gau. This could assist how the international NGO sector in Aotearoa supports the Pacific especially considering the current discourse on delivering a localisation agenda. In addition, the Lomani Gau committee is currently looking for feedback on their recent Code of Conduct (see Appendix F on page 155).

It would also be beneficial to explore how participation is being used in climate change adaptation. There appears hope in recent changes to how participation is used which could facilitate a community-adaptation approach. This can be found in the increase of participatory action research and human-centred design to "ensure that

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[18] From unpublished audio presentation
[19] From unpublished audio presentation

development is responsive to needs" (Smales, 2018, p. 169). However, it is yet to be seen whether this is yet another redressing of participation will be added to, as Kapoor (2005) highlights, the troubled history of how participation has been co-opted into development. How is adaptation also an opportunity for participation?

More research is required to understand more completely the key tenets of recent indicators that rural families are supporting urban relatives in Fiji. This may elevate the prioritising of protecting the best features of the Pacific Islands, as well as highlighting living conditions and aspirations in urban centres.

Finally, it would be interesting to see how this research could be applied to adaptation in Aotearoa. This country is in the process of creating its first National Adaptation Plan and there are some that are strongly advocating for social research to be a part of the plan's early scoping, as well as considerations for values such as equity. What world views are informing this Plan?

Closing thoughts

There cannot be business-as-usual in the current climate change paradigm. Diversifying adaptation to reflect community-adaptation, informed by a modern Pacific epistemology, is required in order for adaptation policy and outcomes to be informed by local concerns so that a chance for something better can occur. This thesis has included much literature by Pacific thinkers and writers who, since the first outsiders sailed to Pacific shores, have been vocalising their desire to be themselves in a modern world. Climate change has presented an opportunity for the Pacific to be centre stage in global discourse: adaptation presents an opportunity to ensure the concerns of local people are included in policy and outcomes that result from this profile. This includes the concern for the erosion of the best features of the Pacific like the expression of reciprocity. These concerns are not in contest with environmental concerns like the destruction of ocean coral and the building of seawalls, but highly related. The reciprocity between people, land, ocean and development is central to any adaptation policy and outcome.

Adaptation approaches must mirror the intensity of global action for mitigation. In this process, the urgency of adaptation outcomes must not mask the 'unsayable' realities of local lives. It must ask the difficult questions. This must include listening and supporting those from within the Pacific that have the desire to adapt to *all* global processes which have jeopardised not only their traditional ways but also their desire for change. People are adjusting to more than climate change: they are also adjusting to other global processes like globlisation and the contemporary form of colonisation (both external and internal). Policy that remains aspirational and not implemented from the ground up does not serve local people. Supporting locally-led community-adaptation that focus on the desires and values of local people is where adaptation and development intersect.

The outcomes for community-adaptation that is powered by modern Pacific epistemology will be local people who choose their own trajectory of change towards something better. This includes how they adapt to the impacts of climate change in a way that is defined by both their concerns and desires. Climate change is the trigger for further inequality and community-adaptation is the opportunity for 'indigenous times' (Salesa, 2014).

Community-adaptation from modern Pacific epistemology mirrors Pacific scholar Gegeo's vision for Pacific research that its main aim is for the epistemic project to catch up with the political project. This thesis has shown that if this does not happen, the features and strengths of the Pacific will wash away with the rising tide and cyclonic winds. Adaptation must be seen as opportunity to address the failings of sustainable development. It must be grounded by systems and processes that priorities respect, agency and self-determination over thrusts for progress. And the international development community's role must be to support this call. Also, beyond clever frameworks is the need for constant personal reflecting by professionals to take a seat and relearn with the heart and mind. What is at stake here is the freedom for Pacific people. This freedom does not lie in progress alone: "… our freedom lies in the flexibility in all kinds of discourses on the nature of our societies and on the directions of our development" (Hau'ofa, 2008, p. 61).

Epilogue

I am back in Asena's kitchen, in every piece of material, paint and noni *seed. I wonder if her husband Rupeni has saved any more money to buy their future in little sandalwood seedlings. I am sitting on the beach waiting for* sala *to flee from bigger fish. Aunty has made her roast pumpkin – it is our farewell – and it is going to be hard to leave. The young men are getting off the truck from the cannery in Levuka, smelling of fish and glad to be home. The money they earn belongs to the family and tonight they'll sit around drinking* kava*, gazing at the world through their phones.*

I am now forever in the Va *– the space that relates. This space is growing smaller in time yet expands as I read the Fiji Times online, wrap my sulu around my waist, and sit on the front of the boat, waiting. I watch our pet stingray at the marina moving under the surface of the water. I wear a red flower clip in my hair as I visit the people I met in Fiji again and again, across the ocean. I watch the tide turn.*

Figure 25: Asena and Rupeni's house, Arovudi village

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Appendices

Appendix A: Pacificscape audio visual expression

To view online, please go to https://youtu.be/dLN-HodoMT0

Like the video, it takes time to view the subtle differences in these screen shots, just as it takes time to consider and action local contexts in adaptation and development. Also, some changes are unseen.
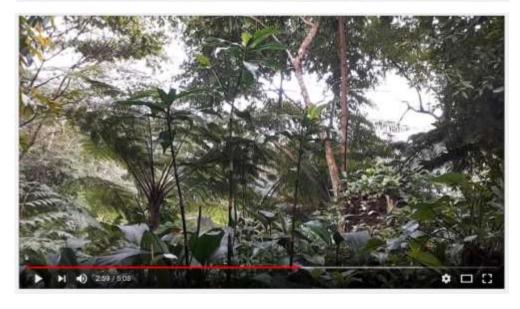
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Appendix B: *Va* Conversations – full list

Location	Name	M/F	Age	Group
Suva	Sushil Kumar	Male	18-35	Suva Markets
	Bal Ram	Male	56+	Suva Markets
	Patrina Damaru	Female	18-35	USP
	Joey Tau	Male	18-35	Consultant
	Associate Professor Joeli Veitayaki	Male	36-55	USP
	Professor Vijay Naidu	Male	56+	USP
	Amani Waqetia	Male	18-35	NGO
	Suliana Siwatibau	Female	56+	Community
Ovalau Island				
Levuka	Suliana Sandys	Female	36-55	Community
	Charlie	Male	18-35	Community
	Anonymous 1	Female	18-35	Community
	Matereti Mateiwai	Male	18-35	Government
Bureta	Fane Koyanasam	Female	56+	Community
	Donato Keyenksan		56+	Community
Arovudi	Eroni Vunirova	Male	56+	Turaga-ni-koro
	Ruci Vunirova	Female	56+	Community
	Salote Manu	Female	36-55	Community
	Rupeni Joji Sivo	Male	18-35	Community
Taviya	Arieta Vunibola	Female	18-35	Community
	Jale Pita	Male	36-55	Community
	Kalisi Cibitaki	Female	18-35	Community
	Filipe Rokowaqa	Male	36-55	Turaga-ni-koro
	Sireli Colanavanua	Male	56+	Community
	Neumi	Male	56+	Community
Gau Island				
Nawaikama	Joeli Bale	Male	36-55	Community
	Nasa	Male	18-35	Turaga-ni-koro
	Miriama Tuisinu	Female	36-55	Community
	Asena Mateull Saumaisue	Female	56+	Community
	Joana Tauelo	Female	18-35	Community
	Anonymous 2	Female	18-35	Community
	Vasemaca Bilitaki	Female	36-55	Community
	Anaseini Togaca Cama	Female	56+	Community
	Lusiana Koroi	Female	18-35	Community
	Milika Maramanivesi	Female	56+	Community
	Kelesita Mataitoua	Female	36-55	Community
	Timaima Mataitoga	Female	36-55	Community
	Anaseini Mataitoga	Female	56+	Community
	Lanieta Qusa	Female	Undisclosed	Community
	Tinai Baleiwasawasa	Female	Undisclosed	Community
	Suluweti Woti	Female	Undisclosed	Community
	Rota Yabaki	Female	Undisclosed	Community
	Silipa Vakaloloma	Female	Undisclosed	Community

How does adaptation to climate change reflect the community's concerns in the Lomaiviti Group of islands?

INFORMATION SHEET FOR PARTICIPANTS

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?

My name is Janie Walker and I am a Master's student at School of Geography, Environment and Earth Sciences, Victoria University of Wellington, New Zealand. I also have support from The University of the South Pacific in Suva, under the School of Government, Development and International Relations. This research project is work towards my thesis.

What is the aim of the project?

This project seeks to consider how climate-change adaptation activity is affecting Fijians. This research has been approved by the Victoria University of Wellington Human Ethics Committee (25904).

How can you help?

You have been invited to participate because you have unique experience in this research topic. If you agree to take part, I will interview you at your office or community space. I will ask you questions about your experiences of climate-change and what activities you or others are doing in your community. The interview will take up to an hour. I will audio record the interview with your permission and write it up later.   You can choose to not answer any question or stop the interview at any time, without giving a reason. You can withdraw from the study by contacting me at any time before 31 October 2018. If you withdraw, the information you provide will be destroyed or returned to you.

What will happen to the information you give?

The research is not confidential, and you will be named in the final report, unless you do not want this to happen. Please indicate on the consent form which you prefer. If the event you do not want to be identified, a pseudonym will be allocated. However, you should be aware that in small projects your identity might be obvious to others in your own community.

Only my supervisors will view our interview or photography material. If an

external transcriber is used, they will be required to sign a confidentiality agreement. I will read the notes or transcript of the interview. The interview transcripts, summaries and any recordings will be kept securely and destroyed on 1 March 2024.

Will my photograph be taken?

If agree, your photograph/s may also be taken as part of the research.

What will the project produce?

The information from my research will be used in my Master's Dissertation and academic publications and conferences.

If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation if you don't want to. If you do decide to participate, you have the right to:

- o choose not to answer any question;
- o if the interview is recorded, ask for the recorder to be turned off at any time during the interview;
- o request a different name be used in the research;
- o choose not to have your photograph taken;
- o withdraw from the study before 31 October 2018;
- o ask any questions about the study at any time;
- o receive a summary of your interview transcript;
- o be able to read any reports or view any of your photographs from this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact me or my supervisor:

Student:	**Supervisor**:
Name: Janie Walker	Name: Warwick Murray
University email address:	Role: Professor & supervisor
janie.walker@vuw.ac.nz	School of Geography, Environment and Earth Sciences. Phone: +64 4 4635029, warwick.murray@vuw.ac.nz

Human Ethics Committee information: If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

Appendix D: Consent form

How does adaptation to climate change reflect the community's concerns in the Lomaiviti Group of islands?

CONSENT TO INTERVIEW AND/OR PHOTOGRAPH 25904

Researcher: Janie Walker, School of Geography, Environment and Earth Sciences
Victoria University of Wellington, New Zealand

- I have read the Information Sheet and the project has been explained to me. My questions have been answered to my satisfaction. I understand that I can ask further questions at any time.
- I agree to take part in an audio record interview.
- I may also be invited to have my photograph taken as part of the research.

I understand that:

- I may withdraw from this study at any point before 31 September 2018 and any information that I have provided and/or photography taken will be returned to me or destroyed.
- Any information I provide and/or photography taken will be kept confidential to the researcher, her supervisor and the transcriber. The identifiable information I have provided, or photography taken, will be destroyed on 1 March 2024.
- I understand that the results and/or photographs will be used for a Masters dissertation, academic publications and presented to conferences.

	Yes	No
I agree to be interviewed:	☐	☐
I agree to be photographed.	☐	☐
I consent to information and/or or opinions which I have given being attributed to me and my organisation in any reports on this research and have the authority to agree to this on behalf of the organisation.	☐	☐
I would like a copy of the transcript of my interview emailed to me and have added my email address below.	☐	☐
I would like any photos taken of me emailed to me.	☐	☐
I would like a copy of the final master's dissertation emailed to me. If I do not have an email address, I would like it posted to me and I have provided my postal address on the back of this consent form.	☐	☐
I wish to have my identity protected and be referred to by a pseudonym.	☐	☐

Signature of participant: _____

Name of participant: _____

Date: _____

Email address: _____

Appendix E: Photo expression of development's complexity

Community-adaptation, like development, is multi-dimensional and complex by design. Solutions can only be applied if they are understood from this complexity. Only then will local people be given the resources to change for something better.

A jandal, a decaying coconut: modern, traditional. Both valued.

This view changes with every second. Someone will collect a shell, or gather leaves for a fire, and the green plants may grow over some fallen coconut leaves. Yet if this photo is used to evaluate this local context, the evaluation will be irrelevant in a second.

The collection of nature's elements in this photo can be viewed as 'vulnerable' to the next tide. This photo can also be viewed as dynamic and transformative because new arrangements and relationships are made with each tidal movement.

These two leaves appear to be broken. You could try and piece them together in your mind, to see if they were originally one leaf. Even if they didn't quite fit, you need a project, so you could use tape to force their fit. This would be satisfying. Your evaluation would be that you've fixed the leaf. Someone would pay you to upscale your project and find other broken leaves on the beach, so they too can be saved. Most people love a saved leaf.

Part of the orange leaf is obscured. Even though we don't see the rest of the leaf, the obscured parts still have a relationship with the sand and the ocean above it. What is obscured may be hold part of the answer for the survival of this part of the beach.

This natural design could never be replicated by a human. Each pattern, angle, grade of decay and nature of collective relationships are unique. Science can try to replicate it, but it will more than likely fail.

These elements have been bought together by the same processes of tide, wind, temperature, human contact, sun and time. This connects them to their collective outcome.

Source: (Veitayaki, personal communication, July 11, 2018)