Rising Seas and Sinking Islands:

The Geopolitics of Climate Change in Tuvalu and Kiribati

Doctor of Philosophy in Geography and the Environment

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i. Abstract:

Anthropogenic climate change is predicted to accelerate throughout the 21st century, with transformative impacts for biophysical and social systems. Due to their vulnerability to sea level rise and because of fears that they may be fully inundated, low-lying atoll states have been framed as spaces at the forefront of climate change. Questions have been raised over the future sovereignty, territorial integrity and identity of these states in a warmer and wetter world. This thesis explores climate change in relation to small island states from a critical geopolitics perspective by focusing on two Pacific atoll states: Tuvalu and Kiribati. It examines how space and time are influencing understandings of climate change within these states in relation to geopolitics, adaptation and diplomacy. Whilst geomorphologically similar, the perceived threat from climate change has been constructed, and responded to, differently in Tuvalu and Kiribati.

Employing a mixed-methods approach, this thesis draws upon fieldwork conducted in Tuvalu and Fiji as well as at the 2018 United Nations Climate Change Conference (COP24) held in Poland, consisting of elite interviews, participant observation and analysis of secondary sources. Through three substantive chapters, this thesis examines different aspects of the geopolitics of climate change. Firstly, it unpacks the construction of atoll states as "sinking islands" by drawing upon bodies of literature discussing vertical geopolitics and geographies of the ocean. It offers an insight into how scientific knowledge is co-opted, contested and propagated within climate geopolitics by considering the recent geomorphological and diplomatic dispute over the future of Tuvalu's islands. Secondly, it argues that these debates are key in understanding how climate change adaptation is framed within island imaginaries. Resultantly, this research

explores the spatialities and temporalities which underpin the geopolitics of adaptation in atolls. Finally, it is argued that the relationship between bodies, emotion and performance is a core component of Tuvalu and Kiribati's diplomacy. Particular bodies are enrolled in emotional diplomatic performances to make climate change visible.

Overall, this thesis advocates that emotions are used to disrupt the privileged position of science within climate diplomacy, and scholars should be more attentive to the spatiality of emotions in order to better understand the power relations in diplomacy. It contends that spatial imaginaries, temporalities and emotions are intertwined within topographic anxieties of climate change that disrupt the process of territorialisation. This thesis argues that climate change adaptation is both performative and prefigurative and a key process for states to resist hegemonic climate narratives. Finally, it asserts the importance of methodological approaches that amplify and take seriously the voices of those affected by climate change.

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v. Abbreviations

ADB: Asian Development Bank

AOSIS: Alliance of Small Island States

BPC: British Phosphate Mining Commission

CANCC: Coalition of Atoll Nations on the issue of Climate Change

CHOGM: Commonwealth Heads of Governments Meeting

COP: Conference of the Parties

CROP: Council of Regional Organisations of the Pacific

EEZ: Exclusive Economic Zone

G77: Group of 77 plus China

GCF: Green Climate Fund

GEF: Global Environment Facility

ICJ: International Court of Justice

IOM: International Organisation for Migration

IPCC: The Intergovernmental Panel on Climate Change

KAP: Kiribati Adaptation Program

KIRICAN: Kiribati Climate Action Network

KV20: Kiribati Vision 20

LDC: Least Developed Country

LDCF: Least Developed Country Fund

MFATTEL: Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour

NAPA: National Adaptation Programme of Action

PIDF: Pacific Island Development Forum

PIF: Pacific Islands Forum

PIPA: Phoenix Island Protected Area

PLS: Pacific Labour Scheme

PRC: People's Republic of China

PSIDS: Pacific Small Island Developing States

RCP: Representative Concentration Pathway

RNZ: Radio New Zealand

ROC: Republic of China

SIDS: Small Island Developing States

SPREP: Secretariat of the Pacific Regional Environment Programme

TCAP: Tuvaluan Coastal Adaptation Programme

TTF: Tuvalu Trust Fund

TUCAN: Tuvalu Climate Action Network

UN: United Nation

UNCLOS: United Nations Convention Law of the Seas

UNDP: United Nations Development Programme

UNEP: United Nations Environment Programme

UNFCCC: United Nations Framework Convention on Climate Change

UNSC: United Nations Security Council

UNWTO: United Nations World Tourism Organisation

USP: University of the South Pacific

WHO: World Health Organisation

WMO: World Meteorological Organisation

vi. Key Terms and Places

Aba: i-Kiribati for land and people

Alof: Tuvaluan gift-giving protocol including songs, dances and speech

Apia: The capital of Samoa

Banaba: An island in Tuvalu known for its phosphate deposits

Ellice Islands: Colonial name for Tuvalu

Falekaupule: Tuvaluan Traditional Assembly of Elders it also refers to the traditional island meeting hall

Falesuiti Ecological Island: A planned artificial island in the lagoon of Funafuti

Fatele: Traditional Tuvaluan performance consisting of dance and song

Fenua: Tuvaluan term for both people and a place

Fongfale: The largest island of Funafuti atoll

Funafala: Islet of Funafuti near to the proposed Falesuiti Ecological Island

Funafuti: Atoll in Tuvalu and the capital city. Part of the TCAP

Gilbert and Ellice Islands Colony: Colonial territory consisting of modern-day Kiribati and Tuvalu

Gilbert Islands: Island chain in Kiribati

Kaupule: The elected executive arm of the Falekaupule

Kioa: A Fijian island purchased by the islanders of Vaitupu

Maneapa: A community meeting house in Tuvalu, the centre of village life and the building used for governance

Nanumanga: An atoll in Tuvalu that is part of the TCAP

Nanumea: An atoll in Tuvalu that is part of the TCAP

Nukufetai: Small atoll in Tuvalu with a UNDP funded seawall

Palagi: Polynesian term for ‘white man’

Queen Elizabeth Park: Reclaimed land in the lagoon of Funafuti

Rabi: An island in Fiji home to the displaced Banaban community

Sautalaga: A Tuvaluan inclusive, dialogue-based form of decision making

South Tarawa: Capital city of Kiribati

Talanoa: A Fijian practice of reflective and participatory informal dialogue

Temaiku Project: Planned reclamation project in South Tarawa

Tepuka Savilivil: An islet in the lagoon of Funafuti that has mostly disappeared

Tuluakiga Falekaupule: Traditional meeting house in Tuvalu

Vanua Levu: The second largest island of Fiji

Vii Maps: Kiribati

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Vii Maps: Tuvalu

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Chapter 1. Floating Paradises? Climate Change, Sea Level Rise and Atolls

1.1. Introduction

> *I carry a huge burden and responsibility. I carry their hopes that there will be a future for Tuvalu. This is an enormous burden to carry. It keeps me awake at night. No national leader in the history of humanity has ever faced this question. Will we survive or will we disappear under the sea? I ask you all to think what it is like to be in my shoes. Stop and pause for a moment. If you were faced with the threat of the disappearance of your nation, what would you do? I ask you to pause and ask yourself, what would you do?*
>
> Enele Sopoaga (2014), the-then Prime Minister of Tuvalu speaking at COP20

> *As for Kiribati? It is already too late. But what the international community could do is assure the islanders that they will be able to migrate with dignity. It is the least they could do. As the people of Kiribati reflect on the frightening future ahead, there is no escaping the deep injustice that despite its negligible contributions to greenhouse gas emissions, this island nation will be the first to pay the price for other countries' bad choices.*
>
> Former President of Kiribati, Anote Tong and Filmmaker Matthieu Rytz (2018), writing in the Washington Post

Can territory disappear? If the entirety of the landmass of a state is inundated by seawater, what are the implications for its sovereignty, citizens and international relations? Although seemingly Atlantean in nature, this is now a possibility for low-lying atoll states. Only a few metres above sea level, low-lying atoll states have become

emblematic of the threat of climate change. Atoll inhabitants and politicians face difficult choices in the decades ahead as rising sea levels may render their landmasses uninhabitable, or even fully inundated, this century (Storlazzi et al., 2018). Consequently, as illustrated in the vignettes above, the leaders of atoll states are questioning the viability and durability of their states. Such questions raise contentious and challenging issues around the future sovereignty of these states and who should be responsible for assisting atoll dwellers in adapting to climate change. Indeed, the collective contribution of small island states' carbon emissions to anthropogenic warming is negligible, contributing less than 1% of global emissions (UNDP, 2017; IPCC, 2014). The inhabitants of atoll states that have benefitted least from the carbon emissions of industrialisation will be affected first and most severely by the impacts of climate change and are least equipped to adapt to a changing climate. Emotional pleas from atoll leaders have tried to highlight these injustices stemming from climate change

Anthropogenic climate change has already had transformative impacts on the Earth throughout the 20th and early 21st centuries. These effects are predicted to continue and intensify throughout this century and beyond, a key component of which will be the increasing global sea level. The global mean sea level is rising, at an ever-accelerating pace, due to the melting of the Greenland and Antarctic ice sheets, the continued loss of glacier mass and the thermal expansion of the ocean. According to the recent Intergovernmental Panel on Climate Change (IPCC) Special Report on Ocean and Cryosphere in a Changing Climate, by 2100 the global mean sea level is projected to rise by between 0.43m and 0.84m dependent on future emissions (IPCC, 2019a). However, there is a 17% chance that sea level rise will exceed 1.1m under a high emissions pathway and it is not possible to rule out a global mean sea level rise of as much as 2m by 2100

(IPCC, 2019a). Sea level rise is not uniform in magnitude or rate across the globe, with considerable variability in different coastal areas. Between 1950 and 2009, sea levels in Funafuti, Tuvalu have been rising at three times faster than the global mean (Becker et al., 2012). The IPCC (2019b, p.7) reported that "increasing warming amplifies the exposure of small islands, low-lying coastal areas and deltas to the risks associated with sea level rise for many human and ecological systems, including increased saltwater intrusion, flooding and damage to infrastructure". Rising sea levels will not only transform coastal environments and eco-systems but will also have significant cultural, socio-economic and political implications.

In particular, the projected global shift in sea level will have dramatic impacts on coastal communities, economies and polities worldwide as it will increase exposure to a range of hazards such as coastal flooding and tropical storms. Globally, 190 million people currently occupy land that will be below the projected high tide mark in 2100 under a low carbon emissions scenario, under higher emission scenarios this increases to up to 630 million people (Kulp and Strauss, 2019). Framed by scientific depictions of climate change, these predictions are underpinned by contested, and uneven, geographies of knowledge production (Demeritt, 2001). Although the impacts will be felt globally, these predictions are made by scientists predominately working at Western institutions in the Global North with their implications understood to be spatially variable depending on adaptive capacity. International attention has focused on certain localities, with small island states, particularly atoll states, at the forefront of the imagined future of coastal states in the Anthropocene.

Atolls are tropical ring-shaped coral islands that enclose a lagoon and rise only a few meters above sea level. Their formation, as first theorised by Charles Darwin, can be explained by a development sequence of coral reef; as a volcanic island subsides the fringing reef progresses to a barrier reef before ultimately becoming an atoll (Whittaker and Fernández-Palacios, 2007). Due to their low elevation, atolls are particularly vulnerable to sea level rise. If the current emissions pathway continues, annual wave-driven overwash will lead to most atolls being uninhabitable by the mid-21st century (Storlazzi, et al., 2018). In the worst-case scenario, some scientists argue that atolls may be uninhabitable as early as 2030 due to the lack of potable groundwater (ibid, 2018). Given their low-lying nature, picturesque idyllic beaches and tropical vegetation it is perhaps unsurprising that atolls have become the poster children of climate change and sea level rise (Donner, 2015). The magnitude of these projected increases in sea level rise has led activists, academics and politicians to argue that climate change is an existential threat to the territory and sovereignty of some small island states (Burkett, 2011). Describing climate change as an existential threat is an attempt to capture the social, physical, political and cultural magnitude of inhabited areas becoming uninhabitable (Farbotko, 2019).

As noted above, the threat of rising sea levels to low-lying island states presents scholars with an intriguing question. What happens to a state if the entirety of its territory is inundated with seawater? This uncertainty over whether some small island states will be able to maintain a permanent population raises questions around their future sovereign status. Scholars of international law have highlighted the limited utility of environmental law, human rights law and the Montevideo Convention's criteria for statehood in protecting the legal sovereignty of small island states thereby amplifying ambiguities over

the legal implications of rising sea levels for atoll states (Doig, 2016). Some have argued that the construction of artificial structures could create a so-called "lighthouse scenario" with a small population remaining within such edifices to preserve a claim to sovereignty (Yamamoto and Esteban, 2010). Other scholars have argued for the creation of deterritorialised states, which would allow islanders to preserve some degree of self-determination although these proposals raise a number of potential issues (Ödalen, 2014). As an internationally recognised entity, a deterritorialised state would maintain some of the rights of statehood, a governance structure, diasporic elections and state assets held in perpetual trust (Doig, 2016). There are parallels with the governments-in-exile established during the Second World War and contemporary anomalous manifestations of sovereignty such as the Sovereign Military Order of St John of Jerusalem, of Rhodes and of Malta (ibid, 2016). However, questions remain. If entire communities were relocated to another state, how could the collective right to self-determination be maintained? Who would govern the abandoned territory of the small island states prior to inundation? Under the UN Convention on the Law of the Seas (UNCLOS), in order to be classified as an island, the entity must be able to sustain a permanent population and economic life, with artificial islands and structures excluded from the definition. A such, there are potential legal implications if islands are inundated regarding the current delimitation of maritime zones (Andreone, 2017; Yamamoto and Esteban, 2010). Moreover, these future political arrangements are often discussed by lawyers as theoretically intriguing possibilities with no consultation with those who inhabit these island, and little consideration shown for their wishes.

Island voices are equally absent from representations of the impacts of climate change on their states, most evident in the imaginaries of small island states as "sinking nations"

that are threatened by “the rising tide” that have been popularised by various state and non-state actors. Imaginative geographies of climate change induced displacement have built upon a geopolitics of fear, with small island and low-lying states seen as harbingers of the politics of a warmer and wetter world (Chaturvedi and Doyle; 2010). International media representations of small island states have broadcast these imaginative geographies to a global audience. Drawing upon water-based metaphors the Guardian reported, “Waiting for the tide to turn: Kiribati’s fight for survival” with Al Jazeera asking, “Can Kiribati be saved, or will it drown?” (Bowers, 2017; Al Jazeera 2018). This thesis focuses on Tuvalu and Kiribati, two small low-lying island states in the Pacific that have been depicted by international media, environmental activists and diplomats alike as facing an existential threat from climate change and rising sea levels. Formerly the British Gilbert and Ellice Islands Colony, Tuvalu (the Ellice Islands) and Kiribati (Gilbert Islands) received independence in 1978 and 1979 respectively and both have prioritised climate change within their international diplomacy since the late 1990s. Whilst both Pacific atoll states are vulnerable to climate change, sharing similar social, economic and environmental vulnerabilities, their governments have responded very differently in recent years to the threat posed by climate change.

Carol Farbotko (2010b) has argued that low-lying Oceania islands such as Tuvalu have been represented as sinking islands and experimental spaces in order to serve as spaces which inextricable provide demonstrable “proof” of the climate change crisis. She argues “expressions of ‘wishful sinking’ create a problematic moral geography in some prominent environmentalist narratives: only after they disappear are the islands useful as an absolute truth of the urgency of climate change, and thus a prompt to save the rest of the planet” (Farbotko, 2010b, p.47). These narratives of sinking have been appropriated,

reproduced and contested by the diplomats and politicians of small island states in several ways. This focus on inevitable inundation has broader geopolitical impacts. It neglects the fact that many islands may be abandoned long before they are inundated as climatic extremes increase, storm surges worsen, and agriculture becomes untenable with freshwater aquifers facing saltwater intrusion (Ödalen, 2014; Allgood and McNamara, 2017). Moreover, it undermines contemporary adaptation efforts in states such as Kiribati and neglects the complex geomorphological responses of atolls to rising sea levels which may mean that inundation is not inevitable (Donner, 2015; Kench et al., 2018). Through the propagation of discourses of sinking islands, the future of atoll states has been construed as potentially, or even inevitably, finite in nature thus bringing into question the relationship between their future sovereignty, territory and statehood. This thesis contends that the construction, and contestation, of narratives of sinking islands has simultaneously opened-up and closed-down the geopolitical imaginaries of these states.

1.2. Atoll Geopolitics in Tuvalu and Kiribati: Imaginations, Adaptations and Negotiations

Given the questions prompted by a consideration of the impacts of climate change on the futures of atoll states, this topic requires a theoretical approach that is attentive to the relationship between territory and terra. I argue that critical geopolitics can provide a theoretical toolkit to unpack the ongoing contestation and construction of atoll climate futures. Geopolitics is a broad, all-encompassing term with a long, complex and contested history which inevitably means it defies easy definition. Within classical geopolitics, an emphasis is placed on the role of space within international relations, with a view that location and physical environment are important factors in the global power structure

(Tuathail and Agnew, 1992). Geopolitics is often understood as a synonym for international violence, for the control and contestation of territory and as a substitute for international relations. Foster (2006, p.1) argues that “geopolitics is concerned with how geographical factors, including territory, population, strategic location, and natural resource endowments, as modified by economics and technology, affect the relations between states and the struggle for world domination”. It is arguably more beneficial to consider how geopolitics is mobilised and understood as opposed to seeking a singular definition. Dodds (2013, p.1) asks “how does geopolitics work? One way to answer this question is to focus attention on the representation of geographical space. Geopolitics provides a way of seeing the world in which a great deal of emphasis is placed on exploring and explaining the role of geographical factors (such as territorial location and/or access to resources) in shaping national and international politics).”

Such understandings have been fostered by the emergence of critical geopolitics in the late 1980s and early 1990s. Dittmer and Sharp (2014, p.5) contend that “whereas classical geopolitics saw geography as the ‘reality’ that needed to be analysed in order to guide foreign policy, critical geopolitics saw language as the building blocks from which reality emerged. Geopolitics, then, can be understood as a discourse through which the world is made intelligible.” Within this thesis, geopolitics is broadly understood as encapsulating the politics of spatial representations and thus useful in understanding how climate change is discursively constructed as a threat to small island states. In addition, pushing back against the focus on great powers and particular international players, Larsson (2007, p.777) has argued there is a need to “broaden the scope of geopolitics to include also ‘‘counter-spatialization’’ of international political and economic relations by weak states in order to resist such domination”. Within this thesis, I contribute to this call

through focusing on the low-lying atoll states of Tuvalu and Kiribati, considering the construction of, and resistance to, imaginaries of atolls as “sinking states” and the subsequent implications for adaptation and diplomacy.

Political leaders in both Tuvalu and Kiribati have emphasised the severity of the threat to their state in an attempt to overcome global inertia on climate change and bring about meaningful actions from the international community. For instance, in 2002, Tuvalu attracted significant attention as it threatened to bring a lawsuit against the United States in the International Court of Justice (ICJ) over its failure to ratify the Kyoto Protocol propelling Tuvalu into the global spotlight (Jacobs, 2005), whilst in Kiribati, the former President of Kiribati propagated the necessity of global mitigation and adaptation to avert dangerous climate change (Barnett, 2017). However, increasingly apocalyptic imaginaries of inundation, mainly originating in the Global North, have dominated geopolitical discourses and have left little space for atoll states to contest the future of their islands. Several epistemic communities have been responsible for the production and propagation of the knowledge which underpins these narratives. Scientists, technical advisers and development agency consultants all help to produce the “scientific” and “technical” knowledge which underpins these geopolitical imaginaries. Reports, papers and studies are then interpreted, translated and reproduced within the geopolitics of atolls (e.g. Oxfam, 2019). This production of knowledge raises important questions; how are these different forms of knowledge used by international actors to construct particular geopolitical futures? To what degree does this restrict the ability of actors in small island states to articulate alternative futures? Through attentiveness to the imaginary of “sinking,” I examine the verticality enrolled within the geopolitical imaginaries of atoll states through bringing into conversation work on vertical geopolitics,

geographies of the ocean, and geographies of temporality. In doing so, I question how science is produced and contested, as well as how it interacts with other forms of knowledge in the context of climate geopolitics.

Although “sinking” is invoked to suggest that inundation is inevitable, the geomorphological future of atolls like Tuvalu is uncertain. The magnitude of sea level rise in the 21st century remains unknown and recent research has indicated that atolls respond more dynamically to rising sea levels than previously thought, thus suggesting that they may not be (fully) inundated (Kench et al., 2014; Webb and Kench, 2010). Indeed, Kench et al. (2018) suggest that despite rising sea levels, 75% of Tuvalu’s islands are growing in size - although, this increase in landmass does not translate to an increase in elevation nor does it tackle issues of saltwater intrusion into the freshwater lens. Nevertheless, these findings have been co-opted by climate change deniers to cast doubt on the credibility of prediction of climate change. Breitbart News reported that “another global warming scare story bites the dust: fragile islands and atolls are not sinking beneath the waves because of global warming. In fact, they are doing just fine” (Delingpole, 2018). Similar stories appeared in the Australian right-wing press, with the research used to comment on atoll geopolitics more broadly, with the Daily Telegraph reporting “No, Kiribati isn’t drowning, Mr. Tong. And what of China” in response to Anote Tong’s criticism of Australia’s energy policy (Bolt, 2018).

These negative headlines have led to Tuvaluan politicians challenging the research. Following the publication of one paper in 2018, Tuvaluan Prime Minister Enele Sopoaga, during a press conference, conveyed his frustration that the Tuvaluan authorities had not been consulted during the research process and that he disputed the findings of the

paper (Movono, 2018). Atoll states, such as Tuvalu, have become key sites of contestation over climate futures, their hyper-visibility being co-opted by climate sceptics to misrepresent scientific uncertainty as proof of climate change as a fraudulent phenomenon. Ongoing disputes over Tuvalu's future offer an opportunity to explore the role that different epistemic communities play in the construction and contestation of knowledge within climate geopolitics. How particular forms of expertise have been selected and utilised within these debates offers an insight into how diplomatic actors from small island states gain credibility and influence within broader conversations on climate change. Within this thesis, I explore how actors from atoll states are resisting narratives of marginality and attempting to make traditional and local forms of knowledge visible to both science and diplomacy.

Debates over the geomorphological and geopolitical futures of atoll states have influenced approaches to climate adaptation. As such, I examine how atolls provide a unique space to examine the geopolitics of climate adaptation. Adaptation describes the adjustment in socio-economic and environmental systems to actual or expected shifts in climate in order to moderate damage and maximise any potential opportunities (UNFCCC, 2020b). Gough et al. (2010) have argued that portraying small Pacific islands as victims of climate and environmental change reinforces stereotypes of corruption, ineptitude and helplessness thereby negating the range of emergent sustainable practices of climate adaptation being implemented by small island states. One key component in this portrayal of Pacific islands as victims is the rendering of their islands as sinking. To what degree do narratives of sinking shape which adaptation initiatives are deemed acceptable, desirable or even possible in light of rising sea levels? I explore how migration has been rejected as a tolerable form of adaptation in atoll states, and the

subsequent proliferation of large-scale hard-engineering projects, such as land reclamation and the construction of artificial islands.

Tuvaluan politicians, along with domestic NGOs and Tuvaluan citizens, have been resistant to endorsing migration as an acceptable climate adaptation strategy (Smith and McNamara, 2014; Beryerl et al. 2018). Instead, Tuvalu has focused on securing funding for domestic climate adaptation projects like the Tuvalu Coastal Adaptation Project (TCAP), a large-scale climate adaptation project which focuses on reducing the vulnerability of key coastal infrastructure through land reclamation, increasing capacity and establishing new forms of adaptation finance (TCAP, 2020a). Reclaimed land projects, such as the 40,000 m^2 Queen Elizabeth Park, feature prominently within Tuvalu's climate diplomacy as illustrated through their hosting of the 50th Pacific Islands Forum Meeting in 2019. This thesis explores how different temporalities and spatialities intersect within these adaptation projects, and the performative role they play within domestic politics and diplomacy. Tentative plans for future adaptation are increasingly ambitious in scope, with discussion turning to artificial islands. Falesuiti Ecological Island is a planned future adaptation project in Tuvalu. Built using dredged sand from the Funafuti lagoon, the artificial island could be home to 5000 Tuvaluans who are displaced by climate change (Tuvalu Overview, 2014). In this thesis, I examine how artificial islands are testing the conceived limits of adaption and how imagined technocentric futures are creating new climate futures for atolls.

In a similar vein to successive Tuvaluan Governments, the Government of Kiribati under President Anote Tong (from 2003 to 2016) embraced an imaginary of Kiribati as a series of "sinking islands" facing an existential threat from climate change and rising sea levels.

Tong's passionate speeches at international conferences and press interviews sought to galvanise international support for Kiribati and small island states in general. However, unlike the position of successive Tuvaluan Governments, Tong was not resistant to the prospect of permanent relocation as an adaptive response to climate change. As such, under the banner of "Migration with Dignity", the Government of Kiribati endorsed pre-emptive migration as a necessary form of anticipatory action to adapt to climate change (Weber, 2016). Migration with Dignity was envisioned as a scheme to increase the social capital of the population of Kiribati through facilitating access to international qualifications In doing so, it was planned that the i-Kiribati[1] would be able to permanently migrate from Kiribati and enter the international labour market as environmental conditions deteriorated (Farbotko et al., 2016).

However, this future of inevitable inundation and viewing migration as a form of adaptation has been highly contested in Kiribati. After Tong left office in 2016, his successor, Taneti Maamau has focused on adaptation in situ and has not pursued a policy of "Migration with Dignity". Instead, Maamau has focused on ambitious climate adaptation policies, such as the Temaiku land reclamation project which will provide homes for 35,000 people (Jacobs, 2020). Despite significant scepticism from the international community over funding and technical capability, the new administration has proclaimed that it seeks to transform Kiribati into the Singapore or Dubai of the Pacific. Thus, Kiribati offers an excellent example to explore how discourses of "sinking" are contested and alternative geopolitical imaginaries. Moreover, in this thesis, I explore how narratives of resilience are construed within adaptation projects. However, there

[1] As an adjective i-Kiribati describes the people of Kiribati. Gilbertese is the colonial version.

remain significant issues over the international legal status of an artificial island, access to finance and the capability of Kiribati to adapt to the broaden impacts of climate change. These questions are geopolitical in nature and studying the shifting and multiple imagined futures of Kiribati offers an opportunity to explore what the future sovereign arrangements of atoll states may look like.

Finally, I examine how the climate diplomacy of atoll states contests, reproduces and subverts these imaginaries in various ways. Tuvalu's politicians have sought to project the Tuvaluan islands as symbolic of the global effort to tackle climate change. Jaschik (2014) argues that the uncompromising attitude of its UN Framework Convention on Climate Change (UNFCCC) chief delegate Ian Fry at various Conferences of the Parties (COP) has increased Tuvalu's global profile as a poster child of climate change, with Fry's demands for a comprehensive, legally binding climate change agreement bringing negotiations to a halt at COP15 (Farbotko and McGregor, 2010). Through these performances of vulnerability, Tuvaluan politicians and diplomats have sought to portray Tuvalu as at the centre of global environmental governance.

However, external representations of atoll states as vulnerable to climate change are often perceived by atoll inhabitants as exclusionary, reductive and downgrading. As such, in this thesis, I consider the extent to which a geopolitics of humiliation frames how islanders understand and respond to broader narratives of sinking. Whilst scientific knowledge is utilised to legitimise and delegitimise certain sovereign futures, i-Kiribati politicians and diplomats since the early 2010s are increasingly turning to the language of faith and religion to combat the fear instilled by discourses of sinking. Whilst faith-based arguments contest the geopolitics of fear originating from the Global North, the

discrediting of scientific knowledge prompts uneasy questions over the future adaptation plans of small island states. The diplomatic priorities of small island climate diplomacy are shifting as fearful narratives of sinking are displaced by more hopeful futures. Within this thesis, I ask what does it mean to "save" an atoll state? Do the rhetorical devices to posit atolls as spaces in need of "saving" empower small island states or merely reinforce existing power structures? Through a consideration of their climate diplomacy, scholars can gain an insight into the role of emotion, bodies and performance within diplomacy and how they subvert hegemonic discourses. How does this relationship between emotion, bodies and performances alter understandings of science within climate diplomacy? I explore how particular bodies are enrolled within diplomacy to construct geographies of spectacle that make visible, and contest, particular futures. Consequently, I argue that although the visual is a key component of climate diplomacy, it is an understudied component of climate diplomacy.

Although this thesis draws on two cases studies, it is not explicitly comparative in its analysis. Despite their interchangeable role within Western climate imaginaries, Kiribati and Tuvalu have had their own distinct responses to climate change and thus offer different insights into the geopolitics of climate change. The Government of Kiribati's embracement, and then distancing, from migration as a form of adaptation sheds light on alternative perspectives on migration whilst the Tuvaluan government has consistently rejected migration and has focused on adaptation in situ for a much longer period of time. Whilst Kiribati's geopolitical future is contested, the publication of geomorphological research on Tuvalu's atolls has transformed it into a site of controversy enrolling scientific, political and journalistic communities with implications for how different forms of knowledge are mobilised. Since 2016, Kiribati has been less prominent

globally within climate forums, with Tuvalu's increasingly visible within climate diplomacy. Although interconnected, the geopolitics of climate change is different for both states and through an exploration of both this thesis offers multiple, and alternative, findings on the implications of climate change in atoll states for geopolitics, adaptation and diplomacy.

1.3. Aims

This research aims to explore how climate change and sea level rise are represented within the construction of the potential political futures of small island states. It will focus on the Pacific atoll states of Tuvalu and Kiribati as these have been at the forefront of global imaginaries through the construction and proliferation of "sinking islands" narratives. Given the construction of climate change as an existential threat to these states, they offer an ideal case study to examine how sea level rise is imagined as reconfiguring the relationship between sovereignty, territory and statehood. Attention will focus on how space and time are influencing understandings of climate change in relation to geopolitics, adaptation and diplomacy. Through this exploration, this thesis aims to shed light on the role of different forms of knowledge in the imagination, anticipation and negotiation of climate change. As well as these conceptual contributions, this thesis seeks to make an empirical contribution to existing literature. Whilst much literature has focused on the rejection of migration by Pacific states (e.g. Farbotko et al., 2016; McNamara and Farbotko, 2017; Noy, 2017), previous studies have been restricted by their sparse consideration of what alternative futures may look like with limited qualitative research engaging with Pacific Islanders.

1.4. Research Questions

In order to address these aims, the thesis will answer the following questions:

1) How are narratives of “sinking islands” constructed, understood and contested in Tuvalu and Kiribati?

   a) How are different forms of knowledge mobilised within these narratives?

   b) What is the vertical geopolitics of climate change in Tuvalu and Kiribati?

2) What are the geopolitical imaginaries within climate change adaptation in Tuvalu and Kiribati?

   a) How does the intersection of time and space underpin these imaginaries?

   b) What role does land play within climate change adaptation in Tuvalu and Kiribati?

3) How and why do Tuvalu and Kiribati engage in climate diplomacy?

   a) What are the emotional geographies of the climate diplomacy of Tuvalu and Kiribati?

   b) How have bodies been used to perform geographies of spectacle within climate diplomacy?

1.5. Research Contribution

Through this thesis, I contribute to the body of literature in human geography exploring the geopolitical implications of climate change (e.g. Dalby, 2013; Dittmer et al., 2011; Clark, 2013) in two case studies beyond the Global North. I advocate that through attentiveness to temporality and spatiality, the critical analysis of vertical geopolitics and geographies of the ocean can help unpack representations of future sea level in the disruption of territory. Through an exploration of the emerging controversy around

Tuvalu's geomorphological future, I illustrate how actors from small island states are resisting hegemonic discourses and why scholars must be more attentive to decolonial forms of knowledge production.

Scholars have critiqued adaptation as a political process (Nightingale, 2017), however, in this thesis I explore how adaptation is also geopolitical, and that critical geopolitics is well placed to interrogate the process of adaptation. Through a consideration of large-scale adaptation projects, I illustrate that adaptation is not only fundamentally spatial in nature, but that this spatiality is understood through particular temporalities. Critical geopolitics, through its focus on the relationship between power and discourse, and emphasis on the deconstruction of spatial metaphors, allows scholars to better theorise the implications of adaptation. This includes how particular initiatives become seen as legitimate forms of adaptation whilst others are met with resistance. Whilst many scholars have discussed the contestation of viewing migration as a form of adaptation (Black et al. 2011, Felli and Castree, 2012), far less research has considered the adaptive strategies which are being advocated as alternatives. Through the analysis of three land reclamation projects, in this thesis, I unpack the construct of resilience, the temporalities of adaptation and the role of performance within adaptation. I consider how adaptation serves a performative and prefigurative purpose, with adaptation strategies such as artificial islands being used to create potential alternative futures for atoll states and resist narratives of inevitable climate change through a process of active sedentarism in which states aggressively perform their situatedness.

In this thesis I address the deficit of literature considering the diplomatic practices of small island states through an exploration of the climate diplomacy of two states in the

Global South. Whilst much of the contemporary research on the climate diplomacy of small island states has focused on a perceived overreliance on increasingly fragmented coalitions such as the Alliance of Small Island States (AOSIS) (e.g. Heileman, 1993; Betzold et al. 2012), in this thesis, I explore the individual climate diplomacy of Tuvalu and Kiribati. By focusing on the practices and processes of diplomacy, I consider the relationship between bodies, performance and emotion thereby contributing to the small, but growing, body of literature on emotions in diplomacy through a focus on humiliation and dignity. Moreover, I posit that emotions are crucial to understanding the process of climate diplomacy. Bodies are key sites within the process of climate diplomacy, being enrolled to perform and resist particular geopolitical futures. In doing so, I highlight the necessity of embracing methodologies within critical geopolitics that allow for the examination of diplomacy as an embodied practice. I attest to the significance of the visual within diplomacy and examines the geographies of spectacle that are used to perform particular geopolitical futures. In this thesis, I contend that scholars interested in climate diplomacy should look at conferences and spaces beyond the UNFCCC process to understand how particular spaces are used to disrupt the binary between science and diplomacy.

Finally, in this thesis, I introduce the concept of topographic anxiety to understand the interweaving of spatial imaginaries, temporalities and emotions in the context of climate change. I explore the implications of constructing inundation as inevitable and the material and discursive consequences of narratives of sinking. Complex geophysical and political processes are reduced, ignored and simplified through the imaginary of sinking. Intrinsically, land is at the heart of the geopolitics of atolls and climate change, with its rich emotional meaning having social, political and cultural significance for atoll dwellers.

Synonymous understandings of land and territory have meant that this topographic anxiety has disrupted the ongoing process of territorialisation. I ask how adaptation efforts such as hard engineering have sought to address this topographic anxiety.

1.6. Methodological Approach

This research is multi-sited in focus. Climate diplomacy is inherently international by nature, with multiple sites featuring prominently within the atoll geopolitics of climate change. I conducted fieldwork in the South Pacific over two separate three-month periods, from June to September 2018 and July to October 2019, spending time in Fiji and Tuvalu. In addition, I also undertook fieldwork at the 24th UN Climate Change Conference (COP24) in Katowice, Poland in December 2018.

In order to be attentive to how the geopolitics of climate change is constructed, contested and performed, this thesis takes a qualitative and multi-methods approach. In total, I conducted 55 in-depth elite interviews across the three field-sites. Interviews were conducted with a range of actors, including government officials, diplomats, representatives of NGOs and regional organisations, community leaders, climate change consultants and academics. These interviews were used to place a focus on the voices, emotions and understandings of key actors in their construction, and contestation, of geopolitical discourses surrounding atolls.

Alongside these interviews, I also undertook participant observation. I engaged in conference ethnography at the COP24 in Katowice and the 50th Pacific Island Forum in Tuvalu in August 2019. Conferences are key sites within global climate diplomacy, with the annual Conference of the Parties (COP) the most notable, attended by representatives from over 190 states and a plethora of non-state actors (Brun, 2016).

However, climate diplomacy also occurs in other fora. The Pacific Island Forum (PIF) is a regional intergovernmental organisation that encompasses 18 members from across the Pacific that meet annually to facilitate collaboration, with its meetings increasingly dominated by discussion of climate change. Tuvalu hosted the Forum in August 2019, with climate change the main topic of negotiations. Given the limited personnel, financial and bureaucratic resources of the foreign offices of small island states, international conferences provide a key site for multilateral climate diplomacy and public diplomacy.

In addition, whilst I was in Tuvalu I also conducted participant observation of drone-based research projects, climate adaptation schemes and various political and diplomatic events. Through this focus on participant observation, this thesis is attentive to the role of bodies, performances and emotion within climate diplomacy. Finally, this thesis was supplemented by the analysis of secondary sources including newspaper articles from both Pacific and global outlets, academic articles about Tuvalu and key policy documents. Many of these documents were referred to by interview participants and form a key component in mediating how islanders understand, and respond to, wider representations of their states.

1.8. Thesis Structure

Having introduced the main themes and contributions of this thesis in Chapter 1, Chapter 2 provides an overview of the relevant literature that the thesis engages with and seeks to speak back to. It highlights the work in critical geopolitics considering climate change and how social scientists have engaged with islands. It explores how the premise of "sinking islands" has been critiqued within scholarship before outlining literature on knowledge production, vertical geopolitics and geographies of the ocean. Reviewing the

literature on adaptation and diplomacy, it makes the case for critical geopolitics to be more attentive to small islands. Building upon the literature review, Chapter 3 outlines the methodology which was employed in this research. It justifies the selection of field sites and the rationale of the research approach. Chapter 4 contextualises the politics, history and environments of Tuvalu and Kiribati and through this overview, sets up the three empirical chapters. Firstly, Chapter 5 focuses on the construction, propagation and contestation of “sinking” discourses and the implications for geopolitics and knowledge production. It argues that narrative of “sinking” collapses complex the ocean-island-climate nexus into a simplistic narrative which destabilises the political technology of territory. Building on this, Chapter 6 unpacks the temporalities and spatialities of adaptation in Tuvalu and Kiribati. Focusing on migration, land reclamation and the construction of artificial islands, it explores the geopolitics of island imaginaries through the process of adaptation. It contests that adaptation project serves as chronopolitical devices which disrupt imaginaries of sinking. Chapter 7 critically considers the climate diplomacy of Tuvalu and Kiribati. Through its attention to the body, emotion and performance, it contributes to contemporary debates in political geography by contending the body is a key site in making climate futures visible to diplomacy. Finally, Chapter 8 draws together the findings from this research to advocate for a greater focus on the spatialities and temporalities inherent within climate geopolitics. It posits the term of topographic anxiety to tease apart the relationship between time and space in understandings of climate change and the significance of emotion within these representations.

Chapter 2. Questioning the Disappearance of Islands in Human Geography

2.1. Introduction

As outlined in the introduction, this research aims to explore the geopolitical imaginaries underpinning the construction of atoll states as “sinking islands” in light of sea level rise. In doing so, this necessitates bringing into dialogue a range of different bodies of literature. I argue that insights from work on vertical geopolitics and geographies of the ocean can be strengthened by being brought into conversation with literature on temporality to theorise how future sea level rise is imagined and anticipated in the present. Moreover, it is important to situate this work within the context of the island geographies that shape the representations of these spaces. In order to understand how the discourse of “sinking” influences the geopolitics of adaptation, I draw upon critical geopolitics and scholarship on the geographies of temporality to critically analyse how the intersection of space and time is understood and represented in the adaptation of small island states. A geographical approach allows the intersection of space and time within understandings of adaptation and migration to be unpacked. Finally, I contend that much of the literature on small island states and climate diplomacy has been discussed outside of political geography, often neglecting the role of emotions, bodies and emotions. I argue that geography is well placed to elucidate on the role of these within the power dynamics of climate diplomacy.

Firstly, this chapter provides a brief overview of the development of critical geopolitics and its contribution to the analysis of climate change. Secondly, it considers the broad bodies of literature on islands within the social sciences and how inundated atolls are understood as spaces in which the relationship between territory, statehood and

sovereignty is reconfigured. Next, attention turns to how geographies of temporality can enrich the theorisation of vertical geopolitics and geographies of the ocean. Focus then shifts to literature on climate migration and adaptation, arguing that the emphasis on resistance to migration has neglected the emergent adaption alternatives. Finally, it reflects upon the limited literature on small island state diplomacy and how political geographers have theorised climate diplomacy and diplomacy more broadly.

2.2 Critical Geopolitics of Climate Change

Initially, in the early 1990s, much of the literature on critical geopolitics focused on dismantling the spatial imaginaries underpinning the Cold War (i.e Tuathail, 1992) with attention turning to the War on Terror in the early 2000s (i.e Gregory, 2004). However, attention has moved beyond topics of conflict, violence and 'great power' politics, with critical geopolitics scholarship increasingly diverse in its focus and climate change emerging as a key area of interest. Geopolitical thought is integral in the framing, understanding and contestation of climate change. Within the realm of practical geopolitics, state and non-state actors alike have securitised climate change as a key concern framing issues through the lenses of national security, human security, militarisation and conflict (Barnett, 2003). In a realist international relations (IR) reading, Hommel and Murphy (2013) call for a rethinking of geopolitical thought because of environmental changes caused by climate change, highlighting the issues of water availability, agricultural productivity, coastal erosion and sea level rise and the emergence of new shipping routes.

Particular spaces, such as the Arctic, have been prominent within the discussion in this literature. Issues around trade, security and hydrocarbons have featured prominently

within international discourses as states securitise climate change in light of melting sea ice (Gupta, 2009), with the Arctic being reimagined as a masculine frontier space of state-building practices (Dittmer et al., 2011). Consequently, shipping routes in the Arctic have been securitised as previously unnavigable waters become passable, raising legal disputes even between allies like Canada and the US (Steinberg, 2014). Climate change has also been securitised as a potential threat to state stability as a cause of migration, an exacerbator of inequalities and possible spark to conflict. Notably, this has been widely discussed in relation to the Syrian Civil War and the disputed influence of climate change on the conflict (see Gleick, 2014; 2017; Hendrix, 2017; Kelley et al., 2015; Selby et al., 2017a; 2017b). Grove (2010) contends that these alarmist reports that climate change poses a risk to future state security grab headlines. In turn, these narratives draw upon, and rearticulate, geopolitical assumptions of an advanced, developed Global North and backward underdeveloped Global South.

More broadly, arguments that climate change acts as a threat multiplier for conflict echo earlier narratives of environmental determinism. Widely embraced by the new professionalising geography in the early 20th century, environmental determinism claims that human activities are controlled by the environment (Livingstone, 2011). Whilst distancing themselves from the notion of environmental determinism, contemporary scholars have been prompted by climate change to return to questioning the role of the nonhuman in geopolitics. Dalby (2013, p. 39) argues that "rendering earlier theories in terms of possibilism rather than determinism is an altogether safer intellectual strategy, not least because there are environmental constraints on many human activities". Within his work, Dalby has advocated the necessity of taking the earth seriously as a political agent, through the re-insertion of the "geo" into the geopolitics, highlighting that in the

Anthropocene humanity is influencing the course of climate, not the other way around. He argues that “climate has become once again a matter for explicit geopolitical deliberation, but in very different terms than it was in the previous manifestations of what have become known as classical geopolitics” (Dalby, 2013, p. 39).

Under the umbrella of new materialism, scholars such as Dalby and Clark have moreover problematised the anthropocentric and constructivist orientation of theory. Clark (2013, p.48) argues that “it is assumed the condition of politics is to reveal how any object of concern is never simply given, but is always constituted out of particular sets of practices, strategies, apparatuses and dispositions…but step outside the domain of life, vitality, the organic - and into the realms of the mineral, the lithic, the planetary, the cosmic - and this kind of political-ontological framing becomes much harder to pull off”. Consequently, "the challenge of the ‘geo-political’ is not only about the way we negotiate our relationships with each other and with our environments, but also about how we collectively deal with the interface between what is and what is not negotiable” (2013, p. 49). Although this argument is valid, the interface between what is and what is not negotiable is not clearly defined, with the boundary remaining socially constructed and contested. Geomorphological processes within atolls are identified by some Pacific Islanders as beyond the realm of life and the result of natural causes, whereas for others they are intrinsically linked to the carbon-capitalist system’s impact on the Earth system. This thesis examines how this boundary of what is, or is not, negotiable often has little reflection on the materiality of environmental change itself. Claims to knowledge, whether that be through science or religion, are crucial in the power dynamics of negotiating where the interface between what is and what is not negotiable lies. I argue

that scholars must remain attentive to the ongoing significance of geopolitical discourses in framing what is contestable and the implications for processes such as adaptation.

Since its inception, representation has been key to critical geopolitics with scholars considering the representations of climate change within geopolitics (e.g. Manzo, 2012). Within the articulation of geopolitical ideas, there has always been an entanglement of knowledge and power propagated through discourses. Although discourse refers to a specific series of representations and practices, "it is NOT simply speech or written statements but the rules by which verbal speech and written statements are made meaningful" (Tuathail and Agnew, 1992, p.193). Moreover, it is through these meanings that identities are constituted, and political outcomes become more or less possible. Thereby the ongoing construction and contestation of these discourses make particular climate futures possible or not by (de)legitimising different forms of action thus affecting the lives of those impacted by climate change.

Sharp (1993, p.492) argues that "strategies of power always require the use of space and, thus, the use of discourses to create particular spatial images, primarily of territory and boundaries in statecraft, is inseparable from the formation and use of power." These strategies of power and spatial images of climate change are in constant flux, and often bear little resemblance to the debates over Dalby's (2013) "geometrics" of climate change. Instead, the geographical is more fluid and interpretative being enrolled to legitimise particular climate futures regardless of the "science". Many representations of climate change in the Global South are produced, propagated and circulated by actors in the Global North thereby silencing those affected by climate change. Scholars have called for the broadening of critical geopolitics to consider how climate change is represented,

understood and contested by those in the Global South (Chaturvedi and Doyle, 2010; Manzo and Padfield, 2016). Through a consideration of two atoll states, this thesis contributes to this deficit of literature on the climate geopolitics of the Global South. Within popular global imaginaries of geopolitics and climate change, islands have been particularly prominent as a space of concern. Ratter (2018, p.173) states that "apart from the lonely polar bear, the narrative of sinking islands is the most popular representation of risks associated with global warming". Drawing upon critical geopolitics and literature from island studies, this thesis seeks to focus on how representations of climate change are constructed and contested in the context of knowledge production, adaptation and diplomacy.

2.3. Island Literature within the Social Sciences

Within geopolitical discourses, islands have become emblematic spaces of the climate emergency in the contemporary period. However, many of the spatial imaginaries underpinning these representations draw on a much longer history of nissology. Islands have long been constructed as spaces of curiosity by scholars, writers and practitioners, being seen as unique spaces in which mainstream ideas, orthodoxies and paradigms can be tested (Baldacchino, 2007). For instance, Greenhough (2011) explores how qualities of islandness have been invoked in constructing Iceland as a laboratory space for genetic research.

In Western thought, islands have been positioned as spaces that serve as indicators of future social relations, or extreme reproductions of social interactions that are possible elsewhere (Baldacchino, 2007). These island understandings are shaped by imagined geographies of edges and centres, peripheries and interiors which also percolate into

representations of other spaces such as deserts and oceans (Jolly, 2001). Islands are imagined as spaces that are somehow protected by marine space, existing beyond the corrupting influences of the mainland, or the modern world, with these spatial imaginaries being replicated within the contemporary seasteading movement, with seasteading seen as a space to fulfil libertarian fantasies to exist beyond the reach of the state (Steinberg et al., 2012). Within her review of islands and archipelagos in human geography, Mountz (2015) contends that islands and archipelagos serve as both material sites and political concepts, through which, geographers can understand the spatial ontologies of power.

In order to deconstruct these spatial island imaginaries, it is crucial to be attentive to how they are shaped by practices of colonialism and postcolonialism. Baldacchino and Royle (2010) contest that islands are among the spaces that most affected by colonialism, islands were often the first territories colonised, spaces where the colonial burden was felt most intimately and thoroughly, and among the last colonies to become independent. Indeed, Levine (2012, p. 440) describes the process of decolonisation in the Pacific as "not through struggle so much as imperial exhaustion". Moreover, many islands continue to be governed through ongoing practices of colonialism, with all bar two of the UN Non-Self-Governing Territories being island polities (Baldacchino and Royle, 2010). The multiple real, and imagined, uses of islands during the colonial era offers an insight into the contrasting representations of island sovereignty (Benton, 2010). As naturally bounded spaces, islands were seen within the European empires as neat, convenient territories. However, these utopian images of islands were subverted with islands also depicted as spaces of "no sovereignty" with island rule often becoming an exercise in despotism. Delegating legal authority to penal island colonies was often difficult to

define, with Benton (2010) arguing the governance of island colonies was dominated by ambiguity. Given the future sovereignty of island states is being brought into question due to sea level rise, as discussed in the next section, it is important to situate discussion on future sovereignties within these colonial and postcolonial imaginaries as they continue to shape contemporary understandings.

Colonial imaginaries around power and control were used to justify and legitimise spatially and temporally extended transactions, such as the exiling of political undesirables to remote islands and the construction of strategic military bases (Kothari and Wilkinson, 2010). In some cases, these island imaginaries have been reworked by postcolonial governments into important cultural and economic resources to support the development of tourism industries in states like Seychelles (ibid). Indeed, as Grydehøj et al. argue (2020, p.20) “the end of empire does not necessarily mean the end of invidious colonial logics. The boxes and borders of colonial map-making have simultaneously brought disparate island peoples into archipelagic relation and raised barriers to other relations.” These colonial borders continue to shape the contemporary identities and geopolitics of Kiribati and Tuvalu, who were governed as the Gilbert and Ellice Islands under the British (see Chapter 4). However, postcolonial scholars have critiqued how colonialism’s legacy continues to pervade island representations. Pacifica scholar, Epeli Hau’Ofa in his seminal text “Our Sea of Islands” (1993) disputes discourses of remoteness and separation that dominate island imaginaries. He challenges colonial imaginations of isolated Pacific Islands by contending they represent a vastness of connectedness, disrupting understandings of Pacifica people as rooted in their land through highlighting the long history of Pacific connectedness through the ocean (ibid). These scholarly insights offer a means to understand contemporary approaches to diplomacy and climate

change in Tuvalu and Kiribati, with politicians and diplomats stressing the interconnectedness of their islands and oceans, disrupting imaginaries of island states as periphery and isolated.

Imaginaries of how climate change will affect islands build upon these broader understandings of peripheries, experimentalism and colonialism. Gough et al. (2010) argue that the Pacific Islands are portrayed as vulnerable societies rendering them as victims of climate change and environmental degradation more broadly. Climate adaptation in island states is perceived as restricted by inept, often corrupt leadership, a smallness of scale, limited resources and extreme isolation (ibid). However, these Western representations are detached from the ongoing, and ever-altering, maintenance and modification of traditional Pacific Island practices. Kelman (2018a) has argued that the rhetoric around climate change in small island developing states (SIDS) poses as a distraction from other development issues which need tackling simultaneously and that the privileging of climate change depoliticises other development challenges. Consequently, discussion of adaptation in islands focuses on the physical hazard of climate change as opposed to broader underlying vulnerabilities. Aspects of islandness such as boundedness, smallness, isolation and littorality are enrolled in stereotypes of vulnerability and resilience which "can formulate and progress a self-perpetuating agenda for academics and practitioners who choose to use vulnerability and resilience as excuses to do what they want to do anyway" (Kelman, 2018b, p. 11). Thus, as is argued by Baldacchino (2018), Western paradigms of resilience in relation to climate change in small island states often end up as an ontological trap. Initiatives focusing on capacity building, supported by external donors, undermine outmigration and shift resources away from shorter-term and local development trajectories and objectives. However,

these arguments do not encapsulate how resilience is being reworked by atoll states to assert their own climate future as demonstrated by the discussion of land reclamation in Chapter 6.

Within this thesis, I explore how Tuvalu and Kiribati both resist, and reinforce, these spatial and postcolonial imaginaries within their climate diplomacy and adaptation. Within the literature on climate change and islands, the premise that some low-lying island states, namely atolls, may be fully inundated by rising sea levels has caught the attention of academia and beyond as provoking interesting implications for territory, statehood and sovereignty.

2.4. Inundated Atoll States: Territory, Statehood and Sovereignty

In an article published in the *Journal of Coastal Research*, entitled "Climate Change and the Future of Atoll States", Roy and Connell (1991) discuss the potential impacts of sea level rise on low-lying atoll states. Identifying Kiribati, the Maldives, Marshall Islands, Tokelau and Tuvalu as vulnerable states, they contend "if GE [Greenhouse Effect] produces the kinds of result discussed here, atoll island states will eventually be overwhelmed… even defending the few urban areas, themselves, isolated, would be an enormously costly operation, especially for impoverished and fragmented island states" (1991, p. 1071). They conclude that "it is extremely unlikely that actions taken within the atoll states alone will allay this gloomy forecast" (p. 1072). Curiously, within the acknowledgements of the papers, there is a nod towards the potential future significance of the paper. Roy and Connell ask "are we being alarmist? We think not. Environmental changes, as are already occurring on a global scale with the greenhouse experiment, could have severe repercussions for future generations. By the time we have amassed 20

or 30 years of climatic and sea level data to be scientifically sure, it might be too late to make the necessary social changes" (1991, p. 1072). These predictions for the future of atolls have captured global attention with the paper being subsequently cited 148 times, as of October 2020, and formed the foundation for work on the future of atoll states. Since the early 1990s, atolls have become a stand-in for the global climate crisis, with them seen as harbingers of more widespread disasters to come (Hirsch, 2015), thus drawing attention from academics and activists alike.

Lawyers and international relations scholars have treated the future of atoll states as an intriguing thought experiment (e.g. Doig, 2016; Burkett, 2011; McAdam and Ferris, 2015). If the entire land surface of an island state is submerged by rising sea levels, can it still function as a state? Can it still claim jurisdiction over the surrounding waters? What happens to its population? Yamamoto and Esteban (2010) argue the hard-engineering solutions, such as the construction of sea dykes, may be prohibitively expensive in small island states. As a result, atoll states may turn to the so-called "lighthouse scenario" in which a tall artificial structure is built on one of the remaining islands to retain a small population in-situ to maintain sovereignty. Similarly, Doig (2016) also considers a number of potential scenarios for atoll states in regard to international laws. Within her discussion of artificial islands, Doig echoes Yamamoto and Esteban's "lighthouse scenario", citing concerns over the prohibitively high cost of construction and the necessity of altering international law to afford Exclusive Economic Zones (EEZs) to artificial structures.

Under the UN Convention of the Law of the Sea (UNCLOS), coastal states have the right to claim a 200-nautical mile EEZ which for SIDS that are archipelagic states, such as Tuvalu

and Kiribati, can provide a substantial source of revenue through lucrative fishing licenses (Andreone, 2017). However, future inundation has led scholars to speculate over the future EEZ claims of low-lying atoll states (Yamamoto and Esteban, 2010; Warner and Schofield, 2012). Under UNCLOS, artificial islands, installations or structures do not entitle a state to any maritime zones – however, this has not stopped states such as the People's Republic of China (PRC) using artificial islands in an attempt to reinforce territorial claims (Beckman, 2013; Ahmad and Sani 2017; Hasan and Jian, 2019; Barnes and Hu, 2016).

However, Doig (2016) pushes further than just considering in-situ solutions and the implications for EEZs. She examines the possibility of atoll states acquiring new territory through purchases, such as the acquisition of Alaska by the United States from Russia in 1867, or the cession of land as a gift, such as Austria's ceding of Venice to France as a gift in 1866. In doing so, atoll states would be able to continue reproducing Westphalian sovereign norms. She also considers collective population resettlement through the UN International Trusteeship System, with elected citizens acting as trustees ensuring some degree of self-governance and self-determination continuing. Nevertheless, there remains a reluctance among the international community to move away from the Westphalian system, although this is not to suggest there are not already existing polities which could provide a template for the future of atoll states. Consequently, in order to maximise legitimacy and support, scholars have focused on adapting existing models as opposed to new political arrangements. Ödalen (2014) considers the possibility of deterritorialised small island states arguing that deterritorialised states are neither new nor rejected under international law, citing entities such as the Sovereign Military Order of Malta. Although the idea of a deterritorialised state, based on the notion of self-determination, is conceptually plausible it is problematic as it ignores the loss of

independence that migrant groups from submerged states will face. McConnell (2016) discusses Tibetan concerns for the future of the Tibetan Government in Exile, particularly after the current Dalai Lama passes away, asking “will the Indian government and public change their stance to the Tibetans on Indian territory once such an internationally renowned leader is no longer around?” (p. 172). In a similar vein, hypothetical discussion of the future sovereignty of atoll states may not be reflective of future responses when atoll inhabitants are actively seeking safe refuge.

Yamamoto and Esteban (2010), Doig (2016) and Ödalen (2014)’s discussions are grounded in the implications of inundation for international law. However, exploration of the potential futures of atoll states also has important implications for political geography and the conceptualisation of the relationship between sovereignty, territory and statehood. Sovereignty is classically understood to be absolute, indivisible and inherently territorial, with that territory bounded, and underpinned by an assumption that all states are equally sovereignty (Agnew, 2005). Agnew (1994) argues that within conventional thinking the state is assumed to be a fixed unit of sovereign space, with a clear polarity between the domestic and foreign, with states conceived of as containers of societies. Political geographers have argued that the spatiality of islands enhances particular forms of territoriality thus encouraging the privileging of the territorial trap by providing a clear spatial demarcation of territory (Mountz, 2015; Agnew, 1994). Consequently, the threat of complete inundation and submergence of atolls beneath the sea is presented as a challenge to atoll states and their sovereignty.

Within political geography, scholars have challenged the ontology of the state, theorising how the state is made meaningful through specific practices and traditions in everyday

life (Jeffrey, 2013). Painter (2006) discusses the myriad of the ways that everyday life is permeated by the social relation of stateness and vice versa, highlighting how the concept of prosaic stateness reveals the complexity and subtlety of state power. Scholars have called for a relational and multi-scalar approach to understanding the state, drawing attention to the symbolic and the material whilst being attentive to both practices and discourse from both a bottom-up and top-down perspective (McConnell, 2016). Building upon this scholarship, within this thesis I not only critically assesses how political geography can help to understand the reconfiguration of the relationship between state, territory and sovereignty in atoll states but also how the study of atoll states can bring new insights to how climate change is altering understandings of these concepts.

According to Elden (2010, p. 810), "territory can be understood as a political technology: it comprises techniques for measuring land and controlling terrain. Measure and control – the technical and the legal – need to be thought alongside land and terrain." Imaginaries of inundation have disrupted the ongoing political technology of territory, suggesting atoll states will be unable to control their land and terrain in a future warmer and wetter world. Sovereignty, however, does not solely describe state control over its territory. Through the concept of contingent sovereignty, Elden (2009) argues modern states are also seen as having a responsibility to uphold human rights and to prohibit acts normatively unacceptable to the global community such as the fostering of terrorists. Due to the impacts of climate change on atoll environments, states may be unable to uphold the human rights of their citizens (Lister, 2014). Levine (2012, p.446) ponders that "sovereignty is similarly an empty concept if there is no land left to which it can be said to apply. A 'virtual' sovereignty, reflecting wistful memories of a country that once was but is no longer, is, according to some scientists, what some Pacific Island states have to look

forward to”. He continues that “many of the low-lying atolls whose very character represent the Western vision of a Pacific paradise, tranquil and idyllic, are the islands most in jeopardy” (2012, p.446). These comments reflect the intersection of the aforementioned (post)colonial imaginaries of islands and consideration for the future sovereignty of atoll states under climate change.

Drawing upon Edward Said’s work, Gregory (1995) has explored the role of imaginative geographies within critical geopolitics. Colonial assumptions remain embedded within understandings of the neo-colonial present, with imaginative geographies describing the ways in which places, people, cultures and landscapes are represented by others. These imaginative geographies underpin Western visions of Pacific islands, as remote, pristine spaces. Utilising discourse analysis, Farbotko (2005) explores how Tuvalu and its people are represented in the Sydney Morning Herald. She argues that Tuvaluan people are constructed as “tragic victims” thereby marginalising discourses of adaptation and silencing alternative constructions of Tuvaluan identity that emphasise resilience and resourcefulness. Subsequently, Farbotko (2010a, p. 56) states that “Tuvalu is being produced as an absolute, discrete and enclosed space in which climate change impacts and their solutions seem more tangible, more graspable and more understandable than on large, complex mainlands, continents or planet Earth”. She concludes this constitutes a “problematic moral geography constructed as Tuvalu islands and Tuvaluan bodies become sites to concretize climate science’s statistical abstractions, enforcing an ecocolonial gaze on Tuvalu and its inhabitants (2010; p.56). Through the propagation of Tuvalu as a space of “disappearing islands”, the Tuvaluan people have become objectified as a “traditional” people at risk of disappearance legitimising voyeuristic tourism to Tuvalu as a ‘last-chance-to-see’ destination (Farbotko, 2010b). Yet, the future of atoll

states is not fixed, and their inundation is not inevitable. Methmann and Oels (2015, p.64) argue that "the discursive struggle is one about alternative geopolitical futures: one where the low-lying island states are still on the map and one where they are not. A different kind of problematization is needed that renders the presumed inevitability of dangerous levels of climate change contestable and questionable." Building upon this research, with this thesis I seek to not only problematise the discourses of disappearance, but also explore how inhabitants are resisting them. Through a methodological focus on in-depth interviews and participant observation, I explore how political actors in atoll states are constructing and advocating for these alternative geopolitical futures. In order to understand this contestation, it is crucial to consider the processes of knowledge production in relation to climate change and how these frame the geographies of temporality that produce particular futures for atoll states.

2.5 Knowing Climate Change and the Geographies of Temporality

There are specific geographies of knowledge which underpin understandings of climate change, capturing the differences between scientific and local, traditional or indigenous narratives (Mahony and Hulme, 2018). Within global governance, the technocratic approach towards climate change has been enforced by, and has reinforced, a scientific framing of climate change with uneven geographies of expert knowledge production and dissemination embedded within the IPCC process (Demeritt, 2001). Scholars have drawn attention to the processes by which climate change projections are constructed, emphasising the complex process of negotiation within the IPCC. The production of the IPCC reports is hybrid in nature, with input from both scientific discussion and diplomatic contestation allowing countries to have a large say in what is included in, or excluded

from, the chapters (Yearley, 2009). In doing so, actors have engaged in boundary work. Scientific knowledge is demarcated from other intellectual activities, with a boundary maintained between science and non-science purportedly to deny resources to pseudoscientists and protect the scientific process from political interference (Gieryn, 1983). However, this dual ontology of science and politics is arguably a fiction. Jasanoff (1987, p.195) contends that "in area of high uncertainty, political interest frequently shapes the presentation of scientific facts and hypotheses to fit different models of 'reality'. The language in which scientists represent and legitimate their claims varies in accordance with the audience to which the representations are made". Crucially, this enrolment of science within areas of high uncertainty shapes the possibilities for governance. Within environmental governance, there has been a tendency by policymakers to gravitate towards bureaucratic and technical solutions, thereby banishing temporal uncertainties and closing down political open-ended problems (Hinchcliffe, 2001). Given the scientific uncertainty around the future of atolls under climate, this literature offers insights into how climate change frames contemporary approaches to adaptation and diplomacy. Through engaging with this literature, I contend this boundary between politics and sciences has become enrolled in geopolitical narratives around the future statehood of atolls.

Science has been used to facilitate and restrict climate diplomacy in the context of SIDS raising climate change at the UN Security Council. Bruner (2017), argues that when atoll states raise the issue of climate change, other states like the PRC use references to science, and exploit its supposed impartiality, to suit their own interests by claiming the issue of climate change must only be addressed by experts as it requires a specific scientific framework. Thus, climate change discussions at the UN Security Council are

closed down if they conflict with the interests of permanent members. In UN climate change discussions, science has been enrolled to propagate discourses of emergency and crisis. A socio-scientific discourse of a global climate science emerged in the years prior to the 2009 COP15 in Copenhagen, with political actors and activists using a scientific framing to construct climate change as a global crisis (Paglia, 2018). Arguably, it is the ostensible failure of COP 15 that heightened the perception of climate change as a crisis and ensured its priority within the international policy agenda.

However, I argue that the construction of climate change as a crisis has also created a narrative that is vulnerable to critique when disaster fails to materialise. Through the prioritisation of scientific knowledge, and exclusion of alternative forms of knowledge, there is significant mistrust among some communities about the credibility of scientific representations of climate change, with climate sceptics misrepresenting scientific uncertainty as science's failure to understand climate change. In order to address these issues of trust and certainty, Demeritt (2001) argues against seeing science as an authoritative, immovable and conclusive claim to knowledge. Instead, he contends that "scientific knowledge should be presented more conditionally as the best that we can do for the moment. Though perhaps less authoritative, such a reflexive understanding of science in the making provides an answer to the climate sceptics and their attempts to refute global warming as merely a social construction" (p. 329). Through an examination of the geomorphological uncertainty over atoll responses to climate change, I contend that these discussions on trust and knowledge have geopolitical as well as political implications for how the future relationship between statehood, sovereignty and territory is understood and contested.

In the Pacific, Finucane (2009) stresses that scientific knowledge is only one component involved in decision-making processes on climate risk, emphasising the diverse belief systems of cultural leaders, theologians and community groups involved and the necessity of building bottom-up institutions. Faith is a key mediator in understandings of climate change within the Pacific. Fair (2018) unpacks how different understandings of the relevance of Noah to climate change in the context of Vanuatu affect broader understandings of climate change. In doing so, she illustrates the tensions and entanglements between scientific, religious and local knowledge with the antagonisms and convergences between scientific and religious knowledge producing very different political imaginaries. Whilst an important contribution, Fair does not focus on the broader impacts of these understandings and how they influence diplomatic approaches. Through the prioritisation of scientific knowledge over other forms of knowledge such as religious, atolls have been constructed as space of crisis, with watery futures dominating the future imaginaries of atolls. Uncertainty around future emissions, feedbacks between the atmosphere and hydrosphere as well as how atolls geomorphologically respond to sea level rise have been removed from the discussion. Mallin (2018) argues that through the simplistic, reductive narrative of "sinking islands", the Tong administration in Kiribati endorsed fatalistic scenarios of climate change in the country thereby silencing alternative versions of Kiribati's future, blending out inconvenient observations and other forms of knowledge. However, Mallin's research draws upon fieldwork conducted in 2016, at the beginning of Maamau's first term and thus neglects subsequent shifts in diplomacy and adaptation, particularly regarding the role of Christianity in climate geopolitics. In Chapter 7, this thesis explores how the role of faith in creating alternative visions of Kiribati's future that have been propagated in recent years.

Moreover, within this thesis, I argue that in order to better understand the geopolitics of climate change in atoll states, it is important that bodies of literature on knowledge, and the relationship between faith and science, in relation to climate change need to be more attentive to the role of time. Thus, it advocates for greater consideration of work on the geographies of temporality. Anderson (2010) has explored how the problematisation of the future as indeterminate or uncertain has been met with anticipatory action. He argues that human geographers must engage with the taken-for-granted category of "the future". Through a consideration of the anticipatory logics of precaution, pre-emption and preparedness, Anderson argues that the future is present in any/all geography and is folded into the here and now. However, the future remains fluid. It appears and disappears with practices making specific futures present with interventions in the here and now made on the basis of certain futures. Within the examination of climate change in critical geopolitics, scholars must be more attentive to how understandings of time are utilised. Klinke (2013, pp.685) argues that "geopolitical writing does not merely construct the spaces of world politics, but it also maps understandings of time. Geopolitics entices its audience not simply through spatial simplification, but also through the many temporal generalizations that haunt geopolitical discourse. The point for critical scholars is not simply to contextualize geopolitics historically or to incorporate a historical analysis of time, but to recognize the myriad ways in which political time operates in geopolitical discourse". Temporal generalisations of inundation and climate change in the context of Tuvalu and Kiribati have closed down multiple political futures, with significant impacts on domestic and international politics for both states.

I advocate that through a greater focus on the temporalities of climate change, scholars can better understand how climate change is leading to a reconfiguration in

understandings of the relationship between sovereignty, territory and statehood. In his consideration of science, territory and climate change in relation to glacial retreat in India, Mahony (2014, pp. 126) explores the co-production of territory in the relationship between climate science and politics. He argues that “a persistent pattern of epistemic and normative intermixing situates predictive knowledge claims within a framework of scientific accountability and national autonomy, in a powerful illustration of how the science and politics of climate change are mutually constituted”. He continues (pp. 126) “we might begin to think about the agonistic coexistence of different co-productions, particularly in the different strategies of reproducing the nation state in the putative global space of international climate science and politics.” Whilst an important contribution, Mahony’s analysis neglects the scale of the body. I argue that Smith’s conceptualisation of the vital territorial conjuncture offers insights into the intersection of spatiality and temporality of climate change in relation to territory at multiple scales, including that of the body. Drawing upon Johnson-Hank’s (2004) vital conjuncture, Smith (2013, pp.573) argues that a vital territorial conjuncture is “a point at which the territorial future is understood to be at risk. Territorial fears drive the sense that youth/territory must be secured against fragmentation and dissolution”. Subsequently, she argues that the future is located in the bodies of young people, hence the desire to defend territory and shape the future manifests itself in the governance of these bodies. I extend Smith’s arguments, illustrating how consideration of the body can help to better understand climate diplomacy.

Bruner in his (2017) article “’ Sinking Islands’ and the UNSC: Five modalities of mobilising science”, explores the role of expertise and science within the UNSC. Although a valuable contribution, there is no exploration of the narrative of sinking – with “sinking” only

mentioned twice beyond the abstract and title with his article lacking analysis of the verticality invoked. Farbotko (2005; 2010a) has unpacked the geopolitical imaginaries, colonial underpinning and island mythology inherent within representations of atolls as sinking in the context of Tuvalu. However, this thesis calls for greater attention to be paid to the how science is utilised, co-opted and propagated within these narratives with particular attention paid to the temporalities of uncertainty. Whilst Farbotko argues that narratives of sinking have been used by external actors, such as the Western media, to silence alternative constructions of islandness as resilience, resourceful and sedentary, she does not consider how the ongoing political technology of territory is disrupted by these imaginaries. There are particular practices, discourses and imaginations through which climate science is produced and put to work in contesting the territorial future of atoll states through the imaginary of sinking with geography offering an opportunity to advance our understandings of climate politics. Moreover, Farbotko does not analyse the verticality of sinking nor the implications for geographies of this ocean. I argue that this premise of “disappearing islands” provides an ideal space to consider how this growing body of literature on the temporality of climate change intersects with literature on vertical geopolitics and geographies of the ocean.

2.6. Vertical Geopolitics and Geographies of the Ocean

Over the past decade or so, geographers have increasingly been attentive to the vertical and volumetric. Building upon Graham’s (2004) work on the Battle for Baghdad, Elden (2013) systematically argues that geopolitical thought remains limited by its lack of engagement with height, area and volume and that geographers should engage with the concept of vertical geopolitics. Elden asks (pp.35) “how does thinking about volume –

height and depth instead of surfaces, three dimensions instead of areas – change how we think about politics of space?". Drawing upon examples of the verticality inherent within battlespaces such as aerial bombardments, unmanned drones as well as the subterranean nature of bunkers, caves and tunnels, Elden argues that "the political technology of territory comprises a whole number of mechanisms of weighing, calculating, measuring, surveying, managing, controlling and ordering (2013, pp.45)". Bridge (2013) extends Elden's engagement to consider the political-legal techniques adopted by states and firms for capturing and controlling subterranean natural resources, arguing that, "volume is a primary metric of anticipation and potential: calculations of what space contains (cubic meters of gas, ounces of gold), and what contained materials mean that space could become, are essential to the performance of resource landscapes (pp.56). Continuing, he (pp.56-57) states that "volume, then - in the sense of both amount and internal structure - provides a rich register for "a dramatic exposition of the possibilities" associated with territory". Volume, however, is not only a metric of anticipation and potential but also of danger and threat in relation to sea level rise.

Despite Elden's call for scholars to theorise the volume and vertical in relation to geopolitics, his discussion remains firmly focused on the terrestrial and aerial thereby neglecting the ocean. Steinberg and Peters (2015, pp. 247), in their consideration of wet ontologies, "turn to the ocean itself: to its three-dimensional and turbulent materiality, and to encounters with that materiality, in order to explore how thinking with the sea can assist in reconceptualising our geographical understandings". They continue that "the three-dimensional extent of the sea—its immense volume—makes observation and knowledge, and therefore geopolitical control, problematic (2015, pp. 254)". More recently Peters and Steinberg (2019) have built upon their argument arguing the ocean is

not merely a liquid nor wet, it is also solid (ice) and air (mist) with generative effects for winds and thus necessitating a "more-than-wet" ontology. Utilising this "wet ontology", Acton et al. (2019) reflect upon how the Sargasso Sea was located in a geographic space through the enrolment of science to reveal its complex materiality. They argue that "the complexity of the Sargasso Sea can never be fully captured and communicated through a 2-dimensional map. Yet, in using a "wet" ontology to understand its production, this paper has revealed that the Sargasso Sea is far more fluid, dynamic, and emergent than its representations" (pp. 97). In a similar manner, there is great difficulty in capturing and communicating the impacts of sea level rise on atolls due to their geomorphological dynamism. As such, as argued by Dalby (2013, pp.45), "the volumes that matter most now are some of the key geometrics related to the atmosphere and the ocean, and the struggles to secure them are the next phase of geopolitics". In the context of atolls, the struggle to secure the voluminous expansion of oceans dominates contemporary geopolitical discourses. Despite the integral role oceans play within climate and climate change, Steinberg and Peters (2015) only fleetingly engage with issues of climate change, highlighting how northern indigenous peoples have argued climate change will result in a decline of sea ice and change their relationship with the ocean.

Within this thesis, I posit that atolls are a key space to explore these struggles between atmosphere and ocean, in relation to the forecast volumetric expansion of the ocean at the expense of island space and subsequent dynamic responses of atolls to the changing verticality of the ocean. Within Island Studies, Johnson (2020) considers the fluidity of islands, unpacking the physical transformations of islands through different spheres of change: upward, downward, outward and inward. Through this, Johnson contemplates the geographies of horizontal expansion through land reclamation and how this alters

perceptions of land space. Notably absent from the article is a discussion of how islands are being physically transformed both by, and in anticipation of, sea level rise. I explore this transformation in Chapter 6 in relation to land reclamation projects in Funafuti and South Tarawa.

Scholars within geography have explored how the edge between island and ocean is contested. Sammler (2019) has argued that the boundary between land and sea is materially manifest through coastal features and produced politically as baselines. Consequently, the boundary is blurred and more dynamic than represented politically and legally. She describes how atoll states, including Kiribati and Tuvalu, have passed national legislation asserting their maritime jurisdictional boundaries in anticipation of discussions on ambulatory baselines. Advocating that the shoreline is not, as is often seen, a distinct place separating the water and land but a dynamic zone that is porous and connected to other places, Kothari and Arnall (2019) have drawn attention to the materiality of sand within place-making processes that occur across different, interconnected temporalities bringing about emotional and sensory reactions. Such scholarship resonates with contemporary discussions around hard engineering project in atoll states as sand is used to reclaim and create land to disrupt imaginaries of inundation and reinforce ongoing place-making processes. Atolls are dynamic geomorphological features, with imaginaries of an “edge” between land and sea lending itself towards technocratic solutions, such as seawalls, that allow humanity to control the atoll edge through fixing it (Yarina and Takemoto, 2017). However, understanding of the relationship between sea and land are ever evolving, and within this thesis I contend that contemporary adaptation projects have moved beyond the protective to also encompass expansive measures. As the ocean is an ontological marker and component of Tuvaluan

daily life (Stratford et al., 2013), I argue that hard engineering projects are reconfiguring understandings of the future ocean-island-climate nexus.

Scale is a key concept in understanding the construction of the ongoing, and ever-changing, relationship between oceans and islands. Allen (2017) in the context of Bougainville and the Solomon Islands, argues that a politics of scale enhance how islandness is understood as an important variable in social and political and economic processes within territorialising projects. Ordinarily, this politics of scale is mobilised as limiting factor to island agency, politics and development with Ratter (2018, pp.176) arguing that “so-called issues of scale on islands mainly refer to smallness, and/or limitations of space”. In order to overcome these imaginaries, the ocean has been enrolled within geopolitical constructions such as the ‘Blue Economy’ that have been propagated by island states to resist the categorisation of SIDS to create new spatial identities as large oceanic states (Silver and Campbell, 2018). These invocations of blueness have been mobilised within the pacific to frame regional geopolitics through the notion of the “Blue Pacific” which has become increasingly prominent within recent years, reimagining the region as a vast networked oceanic space in an attempt to overcome the perceived smallness of the Pacific Islands (Maclellan, 2018; Gruby and Campbell, 2013). Within the “Blue Pacific”, there has been a prioritisation of issues of ocean governance and climate change.

Through processes of ocean and climate governance scale is continually produced and contested. In order to understand how scale is mobilised, scholars must be attentive to the multiple forms of knowledge used within these practices. Gray (2018, pp.268) argues that a “range of scientific and technical representations laid foundation for an

imaginative geography of high seas as a space that is both in need of conservation action and amenable to the spatial logic management typically reserved for state territory". Indeed, "like climate and climate change, marine biodiversity on the high seas, and threats to it, are made visible and knowable through science and technology" (pp.269). I argue that science and technology, and their role in making climate change visible, are key in understanding the geopolitics of climate change in atolls. Moreover, these scientific forms of knowledge come into tension with, and on occasion complement, other forms of knowledge.

Scholars have researched the role of sovereignty in relation to islands and conservation. Mawyer and Jacka, (2018, pp. 239) argue that "sovereignty is found not only in the post Westphalian constitutions of recognized states, but also in ideologies and sets of practices that subjugated people often deploy in order to control access to their resources and territories." Indeed, "ultimately, sovereignty and conservation are both fundamentally about the control of unruly, wickedly complex systems with human and natural dimensions" (ibid, pp. 247). In a similar manner to conservation, atoll geomorphology can be understood as an unruly, wicked complex system with human and natural dimensions, at both a local and global level. Whilst an important contribution, Mawyer and Jacka neglect the geographies of temporality that influence these processes. It is important to bring these bodies of literature on vertical geopolitics and ocean geographies into conversation with the aforementioned literature on temporality in order to understand how future sea level rise is represented. Childs (2018) extends this engagement with three-dimensional geopolitics to consider the fourth dimension. In the context of deep-sea mining in the waters of Papua New Guinea, Childs argues there are key geopolitical imaginaries around resource security and progress, environmental

disaster and precaution and thus attention must be paid to the temporality of deep-sea mining through which matter becomes resources. Imaginaries of the climate futures of Tuvalu and Kiribati provide case studies to unpack how future ocean-climate interactions are spatially constituted through the narrative of "sinking islands". These narratives of encroaching oceans have been used to constitute the populations of atoll states as refugees-in-waiting.

2.7. Migration and Climate Change: Future refugees or adaptation strategy?

Early discussion of climate migration was dominated by ominous predictions of mass displacement with severe security implications, perhaps most notably that by 2050 climate change would displace 200 million people (Myers, 2005). Despite these estimates almost certainly being an overestimation (Black et al., 2011), global alarmist narratives remain abundant. Chaturvedi and Doyle (2010), considering discussion of 'climate refugees' in Bangladesh, note the emergence of a geopolitics which "draws upon, and in turn, feeds into various alarmist imaginative geographies and sites too easily alongside realist schools of thought within the most hide-bound and archaic traditions of international relations scholarship" (pp.209). Subsequent imaginaries of climate-induced displacement have been framed by a geopolitics of fear with boundary-reinforcing cartographic anxieties. Although neither uncontested nor universal, narratives around climate migration have been dominated by apocalyptic narratives which Bettini (2013) argues increases the risk of xenophobia, authoritarian policies and a post-politicisation of climate migration re-normalising the phenomena as a matter of fact.

Atoll inhabitants have been prominent within discussion of future climate refugees. Farbotko and Lazrus (2012) argue that alarmist narratives of climate change seem to

require evidence of immediate, imminent displacement and thus spaces such as Tuvalu have been co-opted to serve as a ventriloquist's dummy to speak to the Western 'crisis of nature' as a source of climate refugees. Political leaders, activists and communities from atoll states have consistently rejected the idea that their people will become climate refugees, with some Tuvaluans stating they would rather drown than leave their homeland (Farbotko et al., 2016). Dreher and Voyer (2014) argue that through the media framing of SIDS as climate change victims, and proliferating narratives of climate refugees, the desire of small islanders to be seen as proactive, self-determining agents of change has been undermined. However, this is challenged by Arnall and Kothari (2015) who contend that there are divergences in understandings of climate change among different groups within atoll states, specifically that there are varying perceptions of urgency and crisis. They describe how external narratives of climate change are unproblematically mapped onto the ordinary lives and experiences of islanders, even if this jars with their everyday realities.

In addition to these issues of representation, the term 'climate refugees' is used loosely and lacks any legal grounding. Under the UN High Commissioner for Refugees 1967 Protocol relating to the Status of Refugees, people fleeing their homes due to natural disasters or environmental problems are ineligible for refugee status and subsequent protection afforded from such status (Lister, 2014). Lister (2013) rejects calls to expand the definition of refugee, arguing refugees remain a normatively distinct group from others who are owed particular duties from the international community that can only be met by granting them refugee status in a safe country. Nevertheless, he states that there is a moral obligation owed by the international community to people harmed by climate

change, but it is unwise to think that refugee protection will solve all of the problems of climate-displaced people.

Although scholars have been critical of notions of 'climate refugees', there is widespread acknowledgement that some island populations may need resettling, provoking difficult questions around the timing of migration and implications for future sovereign arrangements (Kelman, 2008). Indeed, a few local resettlement schemes have already occurred. Garnering much international attention, the Fijian Government has begun the planned relocation of villages domestically in response to climate change resulting in a flurry of recent scholarship (Nichols, 2019; McMichael and Katonivualiku, 2020; McMichael et al., 2019). Crucially, this relocation has been small scale and consisting of communities moving only a few miles inland. Farbotko et al. (2018) argue that where Pacific people choose mobility, this needs to be supported by creating opportunities that reflect the histories and existing patterns of mobility and place attachment among Pacific islanders. In relation to the Carteret Islands relocation in Papua New Guinea due to sea level rise, Edwards (2013) highlights several logistical concerns. Firstly, she notes issues around landlessness, joblessness and homelessness. Given the interconnection between these issues in the Pacific, the lack of land causes challenges for food security, community cohesion and the relevance of traditional knowledge. She highlights the importance of including islanders within decision-making processes, however inclusion alone is not sufficient. Bertana (2020), discussing the relocation of Vunidogoloa village in Fiji, argues greater attention must be paid to the power dynamics within participatory governance processes that decide whether climate relocation should occur. Whilst consensus and community involvement are buzzwords in contemporary governance frameworks, reflexive analysis of power must feature in adaptation frameworks in order for processes

to be truly inclusive. Notably, both of these relocations are examples of internal migration which is predicted to dominate future displacement from island communities.

In the early 2010s, frustrated by the lack of international mitigation and provision of climate finance, the Kiribati government developed Migration with Dignity, a pre-emptive international relocation scheme (Smith and McNamara, 2014). Anote Tong, the scheme's main advocate, argued that the establishment of diasporic communities could build future resilience to climate change. His plans resonate with what Gamlen (2008) has coined the emigration state. Increasingly, states are dedicating a proportion of their apparatus to emigration, and overseas citizens who are overlooked within the modern geopolitical imagination. However, neither the diaspora nor the emigration state is a homogenous entity, co-constituting each other with different ad hoc state mechanisms shaping relations with different diasporic members. Although researchers have critiqued Migration with Dignity (i.e Weber, 2016), Farbotko et al. (2016) argue there are significant knowledge gaps around how the policy intersects with place-based identities, power relations and mobility. Moreover, these knowledge gaps are particularly acute given the significant shift in the Government of Kiribati's position since 2016, with the current administration distancing itself from the scheme and promoting in-situ adaptation. Within this thesis I not only address the gaps identified by Farbotko et al. (2016), but in Chapter 6 I also consider how the changing government priorities provide insights into the role of adaptation in contesting imaginaries of climate-mobility, which is yet to be examined within political geography.

Beyond geography, lawyers have been critical of the role of migration as a form of adaptation. McAdam and Ferris (2015) raise a number of legal and conceptual issues in

relation to planned relocations. Who decides when relocation is necessary and the mechanism through which it will occur? When should relocation occur? Should entire communities be relocated? They discuss issues around relocation as a form of adaptation – surrounding government reluctance to consider mobility, risks of maladaptation and the difficulty of isolating climate change as the sole cause of displacement. On what legal basis should the decision be made, given the state's responsibility to ensure the human rights of those within the territory are respected? Notably, in the case of Kiribati, the reluctance of the current administration to consider mobility as an acceptable form of adaptation has led to the government pursuing adaptation as a mechanism to uphold the human rights of its citizens in-situ.

As well as these legal issues, critical scholars within the social sciences have challenged the conceptualisation of migration as adaptation. Methmann and Oels (2015) argue that the discursive shift towards resilience within narratives of climate governance has reframed the debate towards migration as a rational adaptation to unavoidable levels of climate change thus viewing the relocation of millions of people as an acceptable outcome. In doing so, those displaced by climate change are transformed into adaptable human subjects whose ability to adapt to the anthropogenic alterations of the biophysical world is subject to capitalist market relations (Felli and Castree, 2012). Focus is placed on the ability of individuals to respond to change and protect themselves from environmental degradation. Technocratic and de-politicised discourses of climate change can conceal underlying political agendas (Kothari, 2014). In the Maldives, the government's efforts to relocate remote islanders to facilitate the provision of services was highly unpopular, and it was subsequently reframed as an environmental policy to relocate populations vulnerable to sea level rise. Moreover, in the context of the Pacific,

Mountz (2015) draws an uncomfortable comparison between the Australian Processing Centres in island states such as Nauru, with those displaced by climate change. She argues that (2015, pp.642) "these contrasting, if proximate, projects offer a fascinating juxtaposition for political geographers to sort through: the desire to resettle populations on sinking islands whilst thwarting mobility of others held by force on other islands nearby. Who will have the power to make decisions about resettlement and when? What happens to the identity, citizenship, and governance of those relocated?". Through an exploration of i-Kiribati resistance to Migration with Dignity, this thesis seeks to address these questions by considering a case where migration was rejected as an acceptable form of adaptation.

Questions of power, justice and emotion come to the fore when considering migration as a possible adaptive strategy. Many islanders lack the resources to leave or have no state willing to receive them, thus are unable to migrate (Connell, 2013). Clark and Bettini (2017) draw attention to practices of caregiving and how these intersect with climate displacement. Through viewing migration as a form of adaptation, the most 'adaptable' individuals are able to migrate, leaving behind those individuals who are least 'adaptable'. Given the demand for health and social care workers in the Global North, they question the ethics of encouraging those with caregiving capabilities to travel against the gradient of greatest need, with climate change exacerbating issues of health and care in the Global South. More broadly, this focus on care draws attention to the role of emotion in the context of climate migration. Parsons (2018) has argued that there is a conceptual disjuncture within climate migration research between climate data itself, inherently scientific and quantitative in nature, and the emotional responses of humans. Amidst the widespread desire to prove casual linkages between migration and climate

change, the human experience of climate is too often neglected. Thus, Parsons calls for a methodological commitment to qualitative subjective accounts to gain a greater insight into the role of emotion. Through a focus on the role of qualitative methods, in this thesis I draw upon in depth interviews and participant observation to unpack how emotions have been enrolled within climate geopolitics to resist the normalisation of migration.

Despite resistance to migration as adaptation, Pacific Island diasporas seem likely to continue to grow through the extension of present migration channels and flows, whether or not environmental degradation intensifies. Within Tuvalu, there has been a comprehensive rejection of the term refugee, with a strong alternative emanating from Tuvaluan civil society, reframing the debate on the future of their country in terms of human rights, global citizenship and mobility as well as a land-based adaptation strategy defined by national borders (Farbotko and Lazrus, 2012). Farbotko (2018) has coined the term "voluntary immobility" to encapsulate the preference of indigenous Pacifica people who wish to stay on their lands for cultural and spiritual reasons, even in light of a significant deterioration in their health and livelihoods. Rather than viewing these populations as trapped, Farbotko and McMichael (2019) argue we need to rethink adaptation to consider those people and communities who choose to remain in-situ. However, this raises difficult ethically and political questions when a site is deemed by external experts to longer be inhabitable for humans. What would constitute as legally acceptable evidence to prove that all adaptation efforts had been exhausted whilst ensuring that human rights and dignity are upheld (Farbotko, 2018)? Forms of voluntary immobility can help to advance the ontological security of Pacifica people threatened by a so-called existential threat (Farbotko, 2019). Alternatively, Noy (2017) has argued that this strong resistance to inundation and permanent migration could arguably be viewed

as a way of strengthening the bargaining position in inevitable future discussions about compensation. However, this thesis posits that migration also plays an important role in shaping contemporary adaption policies, prioritising approaches that allow the population to remain in-situ.

2.8. Island Adaptation to Climate Change

A significant body of scholarship within geography and the social sciences more broadly, has been critical of climate change adaptation. Put simply, “adaptation refers to measures that aim to minimise the social and ecological impacts of climate change” (Harris and Barkdull, 2016, pp. 451). However, this definition is somewhat reductive in nature, neglecting the role of power and politics within adaptation processes. Harris and Barukdull (2016, pp. 453) state that “conceivably, adapting to climate change is largely a problem of proper management. This is the impression that one might derive from the UN’s proposals. From this perspective, it is a question of how governments at all levels can design and implement policies to adapt effectively to the challenges of climate change.” However, adaptation extends far beyond just managerial responses to a changing physical environment. Nightingale (2017, pp.12) argues “adaptation is profoundly a socionatural process that shapes vulnerability and which changes adaptation efforts target”. Shifting this focus to the socio-economic and political raises several questions about the process of adaptation. Javeline (2014) contests that “many of the most pressing questions about adaptation are less about science and more about political, social, and economic behaviour and the institutions that facilitate or obstruct that behaviour—questions that political scientists are uniquely trained to answer.” Whilst valid, this thesis contends that political scientists are not alone in their ability to offer

contributions to these questions. Geographers, with their focus on space, place and scale, as well as utilising the theoretical toolkit of critical geopolitics, can help to unpack the spatial discourses that underpin adaptation making particular geopolitical futures possible.

Scholarship within geography has highlighted the need to politicise climate change research and the necessity of democratising adaptation policy, implementation and practice (Mikulewicz, 2018). Within climate adaptation, there are inherent power inequalities, which Mikulewicz argues must be addressed via a concerted effort in adaptation research and practice in order to bring about more equitable climate policies and outcomes. Critique has focused on the emergence of terms like 'resilience' within climate change adaptation due to its connotations to neoliberal governance and the depoliticising nature in which it has been used to reduce the Anthropocene to a determinate form of politics (Grove and Chandler, 2017). However, in this thesis, I argue that Western critiques of resilience fail to capture how the term is being repurposed with alternative meaning in the context of climate change in atoll states such as Kiribati to frame adaptation as the latest manifestation of Pacifica culture.

Adaptation is a broad all-encompassing term with significant geographic variance in meaning. Across different Pacific communities, there are considerable differences in perceptions of adaptation, resilience and climate. Notably, there are significant intra-group variations with some come communities prioritising other concerns, such as poverty reduction and development, over climate change (Walsh et al., 2018). However, adaption need not be viewed as in opposition to socioeconomic concerns, with international development increasingly integrating human development goals on poverty

and inequality reduction with climate change projects (Arnall et al., 2014). Although adaptation is increasingly integrated with development projects, it is also used to frame economic development projects in order to access the growing climate finance funds available. For instance, under Taneti Maamau, discourse in Kiribati has shifted away from relocation towards neo-Malthusian concerns about land scarcity and population with adaptation becoming a metaphor for economic development (Mallin, 2018). Climate aid is often sought irrespective of the needs and desires of island and communities, with a heavy focus on infrastructure (ibid, 2018). Consequently, this raises questions about what constitutes adaptation and who benefits from climate adaptation.

In the context of small island states, Ratter (2018, pp.182) argues that "adaptation is not merely a question of technological solutions but also a social challenge as retreat or relocation is often not considered a desirable option. Thus, adaptation implies various socio-political and economic framings, coping capacities and national-international relations… misinterpretation of data and intentional alarmism surrounding sinking islands can lead to maladaptation". This normalisation of the future loss of atoll countries is highly problematic as it undermines contemporary adaptation efforts and can lead to inefficient, ineffective and redundant forms of adaptation even leading to maladaptive measures that exacerbate existing problems (Barnett, 2017; Storey and Hunter, 2010). Denton (2017, pp.70) argues that "struggles in the Pacific Islands over climate change governance reflect larger questions about the role of states in shaping their own futures, especially as many of these states are reliant on external project funding". This is exemplified by Bornder et al. (2020) who consider how colonial power dynamics restrict the capabilities of the Marshall Islands to implement adaptation. They claim that "by denying Marshallese authority over their own adaptation strategies, persistent colonial

dynamics threaten to divest Marshallese of more than just their sovereignty over the adaptation process. With funders, to date, unable or unwilling to support the type of large-scale adaptation necessary to preserve the islands, colonial dynamics threaten a permanent loss of RMI as a nation and people (2020, pp.9)”. Whilst an important contribution, Bornder et al. do not consider the temporalities by which projects contest particular geopolitical futures, an important consideration given adaptation is focusing on shifting current socio-economic processes to future environmental conditions. In order to do so, within this thesis, I turn to work within political geography that has been attentive to the temporalities of adaptation.

Drawing upon Edward Said’s concept of imaginative geography, Michael Mikulewicz (2020) examines the discursive politics of climate adaptation in the small island state of Sao Tome and Principe, arguing that “the imaginative geography of the Global South’s vulnerability and the associated discursive violence inflicted on its people run the risk of entrenching them in a position of political, financial, technical, and technological subordination relative to the Global North… the end result is an adaptation regime that scripts the Global South’s countries and people into a permanent, inalterable space of vulnerability and precariousness” (2020, pp.19). I contest that by being attentive to the temporality of these imaginative geographies, small island states use adaptation to challenge Western geopolitical narratives and contest power inequalities with donors. In order to unpack this phenomenon, in Chapter 6, I explore multiple adaptation projects at different stages of implementation in order to be attentive to how different forms of spatiality and temporality are invoked in adaptation.

Attention focuses on the role of large-scale hard-engineering projects, like land reclamation and artificial islands, which seek to reassert small island agency over the process of adaptation. Jackson and della Dora (2009, pp.2087) explore some of the geographies of artificial islands, arguing that "geographically, the growing phenomenon of the artificial island is significant as a travelling icon and as an illuminating material assemblage for analysing contemporary social spatialities… there is a need to recognise contemporary artificial islands as symptomatic, and expressive of, changing contemporary trends, imperatives, and anxieties of diverse and often opposing spatialities". In their article, Jackson and della Dora briefly consider artificial islands and climate change discussing both planned and completed projects to construct artificial islands in the Netherlands and the Maldives. Climate change is also invoked in their examination of the artificial islands that been constructed in Dubai describing them as "liminal spaces, disregardful of the presence of climate change, and yet responding to the perceived chaos of the human and environmental present" (2009, pp. 2098). However, their section on climate change and artificial islands is mostly descriptive in nature and does not unpack the geopolitical imaginaries which underpin the construction of artificial islands as a form of adaptation. Through attentiveness to the geographies of temporality, vertical geopolitics and broader island imaginaries in Chapter 6 I argue that large-scale adaptation hard-engineering projects provide an excellent example to explore the geopolitics of adaptation. Moreover, I contend that these imaginative adaptive futures are linked to the practice of diplomacy. Firstly, these projects feature prominently within the speeches of Pacific diplomats and serve a prefigurative role as sites of diplomacy. Secondly, in order to be able to fund them, atoll states will need to secure substantial international financial support through diplomacy.

2.9. Small Island State Diplomacy

Traditionally, diplomacy has been understood as an inherently political activity through which sovereign states attempt to achieve their foreign policy, without having to utilise force, propaganda or international law. Scholars' traditional focus on great powers has led to a neglect in studies focusing on smaller states with much literature on small island states within international relations out of date and relatively underdeveloped theoretically (Sharman, 2017; Graham, 2017). Often dismissed as insignificant within international relations and political science literature as insignificant, Cooper and Momani (2011, pp.113) argue that "small states have always been viewed as vulnerable actors in the international system, but at times they can capitalise on their unique vantage point in regional and international politics to make a noticeable impact". Much of the literature on small state diplomacy has turned to Nye's (2004) concept of soft power, broadly understood as the nation's reputation in international relations and its ability to attract and co-opt support. Chong (2010) asserts that small states can utilise soft power to defy territorial expectations in particular spheres, focusing on Singapore' governance structure as a resource in South East Asia and Vatican City's championing of human rights and moral diplomacy. Indeed, Browning (2006, pp. 674) argues that "more positive renderings of smallness in constructing state identities will entail broader possibilities for foreign policies". Braveboy-Wagner (2010) explore the soft power of Trinidad and Tobago in relation to their energy resources, arguing that beyond coalitions, small states with particular resources or values can craft a proactive and influential foreign policy. She argues "the study of small states has focused for some time on issues of vulnerability and resilience. No small state with severe vulnerabilities, such that the state cannot cope with or bounce back from global pressures, can consistently exercise

power” (pp. 424). However, such analysis merely reproduces the aforementioned stereotypes of the role of vulnerability in small island states discussed by scholars such as Kelman (2018a).

Given the challenges that climate change poses to small island states, they are prominent players within climate diplomacy. The wide-ranging and transformative impacts of climate change mean the diplomatic efforts to address it are equally broad in scope, rendering ‘climate diplomacy’ an elusive term to define. Climate diplomacy encompasses a plethora of state and non-state actors across multiple fora, engaging with a range of issues including efforts to increase, or restrict, global ambition on mitigation; securing new forms of bilateral and multilateral funding for adaptation and mitigation; ensuring protection for those who are displaced; creating precedents for litigation; and more broadly raising the profile of climate change (Light, 2017). Small Island States have been recognised as key actors within climate diplomacy since the run-up to the Kyoto Protocol in the 1990s, particularly through groupings such as the Alliance of Small Island States (AOSIS) (Betzold et al., 2012) and their advocacy for the inclusion of the 1.5°C target in the Paris Agreement (Ourbak and Magnan, 2018).

Literature on small island states’ climate diplomacy has been primarily focused on analysis of groups such as AOSIS (Betzold, 2010; Deitelhoff and Wallbott, 2012; Heileman, 1993). However, this focus on the role of blocs in island diplomacy has placed significant emphasis on structural and material factors and paid less attention to prevalent and salient ideas around state identity (Gvalia et al., 2013). Work in geography has highlighted how the individual diplomacy of Pacific small island states is perceived as being restricted by administrative and bureaucratic limitations, small foreign office budgets and overall

perceptions of the Pacific as a peripheral and peaceful region (McNamara, 2009). In their seminal book, *the New Pacific Diplomacy,* Fry and Tarte (2015b) systematically consider the regional diplomacy of the Pacific Island States, exploring the broader geopolitics of the Pacific as well as specific diplomatic interactions focusing on including climate change. Although two chapters examine Fiji's diplomacy post-2009, little attention is paid to the individual diplomacy of other Pacific Islands. Some scholarship, such as Jaschik (2014), has considered the international politics of Tuvalu in the context of strategic framing, foreign policy and advocacy networks. However, it is inattentive to diplomacy as an embodied practice focusing on transcripts of speeches made at UNFCCC conferences and to media outlets. Likewise, Goldsmith (2015) explores how Tuvalu has emphasised particular constructions of vulnerability through its foreign policy, whilst simultaneously resisting other definitions based on environmental refugees. However, his analysis is based on broad brushstrokes drawing on secondary literature and neglects to consider diplomacy as an embodied practice. Given the importance of the role of bodies and performance in diplomacy, this thesis seeks to unpack the diplomatic practices of Tuvalu and Kiribati through an engagement with political geography to understand how atoll states try to negotiate alternative climate futures.

2.10. Political Geography and Climate Diplomacy

McConnell (2019) argues that whilst scholarship within critical geopolitics has deconstructed foreign policy discourses and the agency of geopolitical elites, political geography has been less attentive to the practices, sites and actors of diplomacy. However, more recently geography has "seen the emergence of more fine-grained, ethnographic and theoretically attuned geographical work on diplomacy that intersects

with and productively extends post-structuralist informed research by scholars in international relations (IR) that has turned attention to the role of discourse, practice and embodiment in diplomacy" (McConnell 2019, pp. 50). Geographers have drawn attention to the more-than-human components of diplomacy, highlighting the historical role of new communication technologies such as paper, and their material impacts on spaces of diplomacy such as the Foreign Office (Dittmer, 2016; 2017). Moreover, the scope of analysis has also moved beyond the realm of the state, with geographers considering the diplomacy of non-state actors such as the British Overseas Territories (McConnell and Dittmer, 2018), the paradiplomacy of sub-state actors (Jackson, 2017; Cornago 2010), the European External Action Service (Steindler, 2015) and indigenous communities (Foley et al., 2014). Geographers have also considered the changing relationship between diasporas, states and other diplomatic actors through the concept of "diaspora diplomacy" (Ho and McConnell, 2019). Through expanding the analysis of diplomatic practice beyond state-based diplomacy, geographers have advanced understandings of diplomatic practices. For instance, McConnell (2017) has discussed the out-of-placeness of liminal actors within diplomacy, drawing attention to the blurring boundary between diplomacy and activism.

Kuus' work has considered the role of expertise and geographical knowledge within European diplomacy. She argues that the "social processes by which certain knowledge claims come to be considered authoritative" is not a pre-given but something that is used or performed (Kuus, 2014, pp.3). Thus, she highlights the importance of questioning what counts as expertise within diplomacy and how it comes to be viewed as such . Moreover, Kuus (2015) argues that symbolic power is often overlooked within diplomacy studies. She attests that it is informal social relations that allow scholars to discern relations and

hierarchies beyond the formal institutional structures thus in order to understand diplomacy there is a need for "context-sensitive empirical studies of that field of practices" (2015, pp.371). Constantinou (2013, pp.143) advocates that scholarship should consider "diplomacy as a knowledge practice, pursuing a range of national, cross-national, and postnational goals, negotiating interests but also social meaning and identity, something that encourages its revisiting as a mode of living". In order to examine these processes of knowledge production within diplomacy, the scholarly focus has shifted towards the practices that underpin diplomatic interactions. Jones and Clark (2015) have echoed Kuus' work calling for a more practice-based account of diplomacy with greater academic attention to contemporary geographies of diplomatic practices and how diplomats devise, trial, make claims and counterclaims about geographical representations within everyday spaces and places. Within this thesis, I contend that these practice-based approaches should be utilised within work on climate diplomacy to better understand how climate futures are imagined, contested and negotiated. In order to observe these practices in the context of climate change, I argue that the conference offers a key space for research. Conferences provide a key space for small island states to engage in climate diplomacy and offer an opportunity to observe their diplomatic practices.

Focusing on the Commonwealth Heads of Government Meetings (CHOGM), Ruth Craggs has made important contributions to the literature on geographies of diplomacy through her work on conferences. She has called for the broadening of understandings of critical geopolitics to consider international conferences as geopolitical events arguing that geographers are well-placed to offer critical insights into conferences through the

concepts of visibility, performance and space (Craggs, 2014a; Craggs, 2014b Craggs and Mahony, 2014). Indeed, as atoned to by McConnell (2019, pp.55) “space matters, both to how modes of diplomacy are articulated and how diplomatic agency is produced and contested”. Spatiality is explored by Neumann (2014) through a consideration of a number of diplomatic sites from grand diplomatic showpieces to the dinner table. Hospitality is a key practice within this articulation of diplomacy. Hosting a conference allows the host to stage diplomacy in a particular manner to reinforce or subvert particular power relations (Shimazu, 2014). Craggs has highlighted the centrality of hospitality to post-colonial international diplomacy, arguing the necessity of going beyond the current focus on violence and exclusion in critical geopolitics (2014a). She argues that CHOGMs were a key site for performances of anticolonial and pan-African identities (2014b). Moreover, the presence, or absence, of particular actors at sites within events have profoundly geopolitical implications (Craggs and Kumarasingham, 2014).

These insights from geography can assist in the study of climate diplomacy with Mahony and Hulme (2018, pp.404) arguing “conferences, of both notionally scientific and political kinds, have long loomed large in the politics of climate” and as a result “geographers, along with political scientists, have recently shown growing interest as a particular site of social and political action”. Mahony (2013, pp.37) has discussed the idea of boundary spaces through a consideration of COP15, “the city of Copenhagen in 2009 became a site of intertwined knowledges and political hopes, with certain formulations of the science-policy relationship played out in the enactment of these two boundary spaces”. Conferences are key sites of political, commercial and academic knowledge production, and thus serve as a visible stage on which delegates can perform their legitimacy and are

a key part of the construction of expert identities within climate geopolitics (Craggs and Mahony, 2014). In the context of the 2002 Johannesburg Summit and the 2009 COP15 in Copenhagen, Death (2011) has argued that the symbolic, performative and theatrical role that summits allow political elites to demonstrate their commitment to issues such as climate change and sustainable development. I advocate that through a focus on conferences, and the embracement of participant observation, political geography is well placed for unpacking how performances are used to contest particular power relations within climate diplomacy.

Almost all of the literature on conferences and climate diplomacy to date has focused on the COP to the UNFCCC. Whilst a crucial space within climate diplomacy, indeed this thesis draws on participant observation at COP24, it is vital to expand the scope of analysis beyond the formal UNFCC process. By considering the climate diplomacy at the 50th Pacific Island Forum, which was held in Tuvalu in August 2019, this thesis contributes to that gap. Although the Forum covers a wide range of issues, climate change dominates the agenda – as it did in Funafuti in 2019. Climate change is increasingly seen as an opportunity for states to gain a better reputation in international diplomacy, for instance, India, (Isaksen and Stokke, 2014) and Tuvalu's hosting of the event offers an insight into the role of conferences within diplomacy more broadly. Chapter 7 focuses on how the hosting of international conferences allows states to perform particular climate imaginaries.

Through this focus on the conference, and utilising participant observation, I seek to shift the scale of analysis within climate diplomacy. Feminist geographers have argued that critical geopolitics must be more attentive to the body as "when population becomes

part of a territorial struggle, the body itself becomes a geopolitical site" (Smith, 2011; pp.456-7). With the future population of atoll states perceived to be under threat from sea level rise, Tuvaluan and i-Kiribati bodies have become enrolled within the territorial struggle for their futures. Mountz (2018, pp. 765) argues that "thinking with, through, and about the body offers rich openings and opportunities for geographers and other spatial theorists to expand upon conceptualizations of politics, power, and the political". Thinking with, and through, the body specifically opens up space to consider the role of emotion within climate diplomacy. Anderson and Smith, (2001, pp.8) argue "emotions are an intensely political issue, and a highly gendered one too. The gendered basis of knowledge production is probably a key reason why the emotions have been banished from social science and most other critical commentary for so long". This absence is apparent within geopolitics, and Pain has drawn attention to the fact that despite the widespread narrative of "globalised fear", geographers' engagement with emotion is often lacking in grounding, disembodied and curiously unemotional (2009). She advocates that "the paradoxical lack of interest in feeling itself within analysis of the new geopolitics of fear is likely only to reinforce a fixation with the global as the key scale for analysis" (Pain, 2009, pp. 472) and calls for scholars to rework understandings of geopolitics conceptually to better understand how emotions are deployed, played out and felt in geopolitical phenomena (Pain, 2009; 2010). This sentiment is particularly apparent within diplomacy scholarship, despite the key role emotions play in shaping geopolitical knowledge.

Climate diplomacy, and international conferences, provide opportunities to explore these emotional geopolitics. Jones (2020) has called for discussion within geography on diplomacy to move away from what emotion is, to explore how emotion is mobilised to

alter or reproduce geopolitical relations. Jones and Clark (2019, pp.1262) argue that "emotional registers link state claims with the human condition by lending immediacy, resonance, passion, and conviction to these claims. Performance thus has the potential to inspire, reinforce views or change opinions, and prompt imitation and emulation". Work within International Relations has begun addressing the role of emotion. Hall, in his 2015 book *Emotional Diplomacy: Official Emotion on the International Stage*, argues that states use rhetoric, emotional gestures and invoke emotions as motives for foreign policy. He contends that scaling up emotion to the level of international relations calls for new theoretical approaches to unpack the co-ordinated state-level behaviour that creates an image of emotional responses to international relations. Hall takes a rationalist approach, in which emotional diplomacy is primarily viewed as merely another instrumental form of behaviour by which states seek to achieve their goals. Moreover, its focus on violence and military replicates the most heavily studied aspects of International Relations. As such, this engagement with emotion and diplomacy has focused on state-based conflict with less attention to other spheres of diplomacy.

Whilst emotion remains largely absent from the discussion on climate diplomacy, there are a few notable exceptions. Farbotko and McGregor (2010) discuss how the emotional contributions of Tuvalu's delegation to the Copenhagen COP in 2009. To draw attention to the 1.5°C target, the Tuvaluan delegation walked out bringing proceedings to a halt. During a speech, the chief delegate Ian Fry broke down in tears causing visible discomfort to other delegates including the COP President and "momentarily, apparently stable boundaries established through convention and procedure - those that marginalise emotion and construct climate change negotiations within 'rational' spaces - had been unsettled" (pp. 162). Notably, Fry is a White Australian male who is employed by the

Tuvaluan Government raising questions of representation within climate diplomacy. Scholarship on SIDS' climate diplomacy has focused on formal speeches at spaces such as the UN (e.g. Betzold et al., 2012; Jaschik 2014; Bruner 2017), however, the methodological approach of this research approach neglects the emotive and embodied aspects of diplomacy. McConnell, writing about the UN Forum on minority issues, argues (2020, pp. 3) that "transcripts of speeches delivered at the Forum provide a rather sanitised version of the event and it is only by being in the room do you get a sense of the inter-personal dynamics, shifts in atmosphere and rhythm of the proceedings, as well as glean insights from chance encounters with delegates over lunch, in the corridors, and on the bus back into town at the end of the day". Consequently, rather than drawing upon speech transcripts, this thesis offers an empirically detailed study of Tuvalu and Kiribati's climate diplomacy through participant observation and interviews to place a greater focus on the perceptions, experiences and opinions of small islanders. Through this greater focus on how emotions have been used to transform the body into a site of performance for climate diplomacy, in this thesis I seek to contribute to the literature on climate diplomacy and broader debates in political geography through a consideration of climate diplomacy beyond the UNFCCC process.

In conclusion, in this thesis I will use theoretical insights from critical geopolitics to critique how atolls have become constructed as sinking spaces, bringing together literature on temporality, vertical geopolitics and geographies of the ocean to unpack how these imaginaries are known, contested and subverted. Through this focus on atoll states, I address the lacuna of research considering the geopolitics of adaptation and how particular futures become desirable. In paying attention to the relationship between the body, emotion and performance, I address the deficit of literature considering the climate

diplomacy of small island states and more broadly argue that attentiveness to this relationship sheds light on how futures are negotiated.

Chapter 3. Researching Climate Geopolitics in Small Island States

3.1. Introduction

Situated within critical human geography, I take a qualitative, multi-methods approach in order to "elucidate individual experiences, social processes and human environments" (Winchester and Rofe, 2016, pp.3.) that are enrolled in the construction of Tuvaluan and i-Kiribati climate geopolitics. By drawing upon participant observation, in-depth interviews and the analysis of secondary data, through this thesis I provide an insight into the ongoing construction, propagation and contestation of geopolitical discourses of climate change in the context of Kiribati and Tuvalu. Much of the analysis of climate geopolitics and diplomacy has been highly attentive to the role of text, from newspaper articles, speech transcripts and legal documents (e.g. Farbotko 2005; Goldsmith, 2015; Jaschik, 2014). Through a methodological focus on in-depth interviews, I place prominence on the voices, emotions and perceptions of those who construct, contest and propagate these geopolitical discourses. Moreover, the focus on participant observation, specifically at conferences, allows a more incisive focus on the role of performance, bodies and the visual within diplomacy. Acknowledging the diffuse, international and multifaceted nature of the actors and sites enrolled within climate diplomacy, this research project is multi-sited in focus. As well as this theoretical consideration, multi-site research also provides contingency in the research process increases the likelihood of securing access to key individuals. Arranging interviews with political and diplomatic elites can be difficult due to their mobile nature and schedules, something particular pronounced when considering those working in the Pacific.

3.2. Field Site Selection

Globally, there are five polities who self-identify as atoll states - states whose territory is predominately composed of low-lying atoll islands - and belong to the Coalition of Low Lying Atoll Nations on the issue of Climate Change (CANCC): Kiribati, Maldives, the Marshall Islands, Tokelau and Tuvalu (SPREP, 2014).[2] Within this thesis I focus on the island states of Kiribati and Tuvalu for the logistical, methodological and theoretical reasons outlined below.

Mohamed Nasheed, the first democratically elected president of the Maldives, was overthrown in a coup in 2012. Since then, Maldivian domestic politics have been turbulent with significant domestic protests in the mid-2010s and political turmoil in 2018, before democracy was restored and the opposition leader Ibrahim Mohamed Solih was elected president in 2018 (BBC, 2018; Sharuhaan, 2018). Consequently, despite the Maldives' performative approach to climate diplomacy, with Nasheed holding an underwater cabinet in 2009 to highlight the issue of climate change (Ramesh, 2009), research on foreign policy and diplomacy was not possible between 2017 and 2019. Although the Marshall Islands is a UN member state, the republic has signed a Compact of Free Association with the United States. Under the compact, the United States is responsible for defence and security and the Marshallese are able to travel and work in the US without a visa. Thus, the Marshallese are currently able to migrate if environmental conditions deteriorate, influencing contemporary debates on climate change. Tokelau is a dependent territory of New Zealand and has access to substantial funding from Wellington and Tokelauans hold New Zealand citizenship. Both polities raise

[2]Alongside these states, international media and politicians occasionally apply the term "sinking" to other SIDS such as the Federal States of Micronesia, Seychelles, Solomon Islands and Palau (see Willis, 2015). Although these states may have some atolls or low-lying coastal areas, they also have mountainous islands and topography well above any potential anthropogenic sea level rise.

interesting questions around climate mobility, and adaptation, however, their relationships with their respective metropole states significantly alters this dynamic (Constable, 2017). In contrast, Tuvalu and Kiribati have limited opportunities for migration, they lack any formal arrangement with the UK as the former colonial power and their main migration options are through bilateral agreements with Australia and New Zealand that permit a small number of economic migrations each year (Farbotko et al., 2016). Initially, this thesis was going to focus solely on the geopolitics of climate change in Kiribati. Under Anote Tong, the pursuit of Migration with Dignity by the Government of Kiribati, a pre-emptive adaptive migration strategy, set Kiribati apart from other small island states, not just through its acceptance of migration as an acceptable form of adaptation, but by committing substantial political and diplomatic capital towards its development (see Chapter 4).

Originally, I had intended to conduct participant observation whilst volunteering for the Kiribati Climate Action Network (KIRICAN), an NGO that facilitates climate adaptation across civil society in Kiribati. Alongside this, I had planned to conduct in-depth interviews with diplomats, politicians and policymakers in South Tarawa from June to September 2018. However, particular events in Kiribati and subsequent shifts in domestic politics disrupted this plan. In January 2018, the MV Butiraoi Ferry sank whilst sailing to South Tarawa with a loss of 95 people, including over 20 children (Guardian, 2019).[3] In the aftermath of the ferry disaster, the Government was increasingly authoritarian in its

[3] Following the ferry sinking, there was significant attention from international media. However, the Government of Kiribati severely restricted journalists' access to the country. Journalists from New Zealand were forced to delete interviews with survivors before being asked to leave Kiribati and an Australian news crew were bared entry to the country, with the Government telling them it was a sensitive matter and they did not want foreign journalists interfering (RNZ, 2018a; RNZ, 2018b).

response, restricting the freedom of the press and suppressing the outcomes of the inquiry into the incident (Tahana, 2019; RNZ 2019a). Despite this increasing hostility towards foreign journalists, my planned fieldwork seemed unaffected, and following discussions with regional institutions, I continued as planned. Upon my arrival in Fiji in mid-June 2018, it became clear that the situation was very dynamic with colleagues at the University of the South Pacific (USP) suggesting fieldwork would be difficult due to political sensitivities around climate change. In early 2018, the former President of Kiribati, Anote Tong, working with Matthieu Rytz, released a documentary entitled Anote's Ark. In the documentary, Tong was highly critical of the new administration's approach to climate change. Following its release, and alongside mounting criticism of its response to the ferry sinking, the Government of Kiribati was increasingly hostile towards foreign researchers, with a number of academics, specifically those researching climate change, being harassed, arrested and, in one case, deported from Kiribati (RNZ, 2018c). Whilst previously I would not have required a research permit, this changed in June 2018 and I spent two months in Suva attempting to secure a research permit.

Prior to this disruption, I had already planned to conduct fieldwork in Suva. As the largest city in the South Pacific, Suva serves as a regional hub for the Pacific with several regional organisations and multilateral organisations, based in the city, as well as foreign embassies and high commissions accredited to Kiribati. Numerous institutions and organisations working in Kiribati operate from Suva and many i-Kiribati citizens work for regional organisations in the city. As a Visiting Research Fellow at USP, I was able to facilitate contact through i-Kiribati academics. Whilst in Suva in 2018, I conducted participant observation at the Kiribati Independence Day Celebrations in Suva and the diplomatic reception hosted by the Kiribati High Commission for Independence Day.

Whilst designing this research project, I had initially excluded Tuvalu due to the extensive work published by Carol Farbotko on Tuvalu's rejection of migration as an adaptive strategy (see Farbotko 2010a; 2010b; 2005; Farbotko et al., 2016; Farbotko and Lazrus, 2012). However, during interviews in Suva, multiple participants suggested there has been a shift in Tuvalu's approach to climate diplomacy since Tong had left office in 2016 and that Tuvalu was pursuing increasingly ambitious adaptation projects (see Chapter 4). As a result, I undertook a preliminary visit to Tuvalu for a fortnight in August 2018 to scope out possibilities for research. Whilst in Funafuti, I had ten meetings with various government officials and representatives of NGOs and multilateral organisations.[4] Initial discussions focused on the large scale hard-engineering projects being implemented and planned and the emerging knowledge controversy over geomorphological research conducted in Tuvalu (see Chapter 4). In addition, I met with academics at the Tuvalu Campus of USP, who agreed to host me as a Visiting Research Fellow the subsequent year and supported my application for a research permit. Due to Tuvalu hosting the 50th Pacific Island Forum, the largest diplomatic event in Tuvalu's history, I planned to return in 2019 as the conference offered a unique opportunity to consider the geopolitics of conferences, the role of regional organisations in climate diplomacy and the practices and performances of small island diplomacy.

In December 2018, I attended the UN Climate Change Conference in Katowice, more commonly known as COP24, in order to conduct interviews and participant observation (see discussion below). Whilst at COP, I met with senior i-Kiribati officials and diplomats

[4] These were not formal interviews as I did not have a research permit at this stage. Instead, they were focused on discussing potential areas of research and establishing who the key individuals and institutions were. They were not recorded nor have any quotes been used within this thesis.

including the President of Kiribati's National Climate Change Coordinator and Senior Adviser. Following discussions, I had tentative support for my research, and I reapplied for a research permit in April 2019. However, this position was quickly reversed, and I was subsequently informed that all research and filming applications in Kiribati had been suspended pending a revision of the guidelines and conditions. In July 2019, I received the new 'Research and Filming Permit' application form. However, the new process seemed cumbersome by design and prohibitive toward academic freedom. Consent was required from all relevant government ministries to ensure that "the goals of research or filming work is in line with any policy or strategy of the government" (Government of Kiribati, 2019, pp.3). In addition, any recordings or transcripts were required to be submitted to the Review Team at the Communications Unit of the Office of the President prior to the researcher leaving Kiribati. Following scrutiny, researchers have to retract any content not approved by the Government of Kiribati, with any research findings needing explicit approval from the Secretary to the Office of the President before publication. Subsequently, I decided to focus on conducting fieldwork in Tuvalu in 2019. Discussion of Kiribati in this thesis draws upon interviews conducted in Fiji and Poland as well as participant observation of the Kiribati delegation at the PIF and COP24.

3.2.1. Summary of Field Sites

Location	Interviews	Participant Observation	Archival	Notes
Tuvalu: Funafuti, Nukufetau, Nui, Vaitupu	23	23 events	Tuvalu National Library and Archives	Visiting Research Fellow at USP 2-week visit in 2018, 6-week visit in 2019 Participant Observation: PIF, Drone training, Youth Climate Change Summit and other events 4-day trip to three outer islands visiting climate adaptation projects Interviews with government officials, diplomats and NGO representatives
Fiji: Suva	25	2 events	N/A	Visiting Research Fellow at USP 10-week visit in 2018, 6-week visit in 2019 Participant Observation: Kiribati Independence Day Celebrations Interviews with regional organisations, diplomats and NGO representatives
Poland: Katowice	8	45 events	N/A	Delegate at the UN Climate Change Conference (COP24) in Katowice in 2018 Interviews with diplomats

3.3. Elite Interviews

According to Longhurst (2016, pp.143), semi-structured interviews can be understood as "talking with people but in ways that are self-conscious, orderly and partially structured". Due to their informal and conversational tone, semi-structured interviews create space for participants to bring in their own opinions, emotions and perspectives to the research process thus allowing novel ideas and themes to emerge. Moreover, as argued by Kuus (2013), interviews are often the feasible research method for academics who are interested in foreign policy, due to logistical issues of securing access to political elites and the time-restricted nature of interactions. However, there are limitations to the use of interviews. Richards (1996, pp. 204) argues that elite interviewees can be "awkward,

obstructive, unforthcoming or even deceitful". Although this did not reflect my experiences during this thesis, it is worth noting that politicians and diplomats are well versed in the nature of interviewing and can create careful crafted depictions and simplifications of processes. Whilst some of the research participants for this thesis easily fall into the category of elites, for instance, Western diplomats, many do not such as Pacific Islanders working on climate adaptation projects. Dichotomies of "elite" and "non-elite" interviews hide a sophisticated web of intersectional power relations, constantly in flux due to the ongoing relationship between the researcher and the researched, the positionality of the researcher and the nature of the space of the interaction (Smith, 2006; Phillips and Johns, 2012).

Participants were recruited through a number of means which varied depending on the field site. At COP24, I approached potential participants following Side Events and at social events as well as emailing potential participants in advance. In Fiji and Tuvalu, I relied on gatekeepers such as the Director of the Tuvalu USP Campus and the British High Commission in Suva. Relationships with gatekeepers are never static but are always complex in nature and ever-evolving (Campbell, 2006). Particularly in Tuvalu, I worked closely with the Director of the Tuvalu USP who was instrumental in not only introducing me to participants but also helping to build rapport through several formal and social occasions. Overwhelmingly, I received a positive, and welcoming, reception from the vast majority of participants, many of whom were keen to facilitate subsequent interviews. Of the very few participants who were less hospitable, both referred to high workloads as causing pressures on their time. As such, a snowball sample approach was also utilised with research participants recommending other possible interviews. Snowball samples produce a "unique type of social knowledge that is emergent, political and interactional"

(Noy, 2008, pp. 327). Given the limited number of individuals working on climate adaptation and diplomacy in Tuvalu, there is a web of relationships connecting participants within this research. Although there are more individuals working in the environmental sector in Suva, the number with experience of working in Tuvalu and Kiribati remains relatively low and thus again there was a high degree of familiarity.

In total, 55 interviews were conducted across the three field sites (See Appendix A). Interviews were conducted with diplomats (18), politicians (3), civil servants (12), climate change consultants (9), NGO representatives (6), and academics from Tuvalu and Kiribati (3). As well as diplomats from Tuvalu and Kiribati, I also interviewed diplomats from other Pacific Island countries and Western states who either were accredited to, or had experience of working in, Kiribati and Tuvalu. During my research, I also conducted interviews (4) with representatives from the Council of Regional Organisations of the Pacific (CROP) agencies. It is worth noting that many participants sit across multiple categories, for example one participant was a climate change consultant, an academic and worked closely with an environmental NGO. In this instance I have grouped them according to the position which best reflects why they were approached for interview. Due to their professions, all participants were fluent in English as both Tuvaluan and i-Kiribati students are taught in English from primary school and conduct much of their professional work in English. English serves as the lingua franca for regional diplomacy in the Pacific and thus all participants in Fiji were fluent regardless of their nationality. Overall, 58% of participants identified as male and 42% as female. In terms of ethnicity 71% were Pacific Islanders, 25% were white and 4% were Asian. Most participants, 64% were between the ages of 30 to 60, although those over 60, 22%, tended to be in the most senior positions and almost exclusively male. Of the 13% under 30, the majority

were women reflecting the increasing access to higher education for women in the Pacific and subsequent increase in public sector employment.

Where possible, interviews in Fiji took place at the research participant's place of work, although a small minority occurred in public spaces such as cafes at the request of the participant. Similarly, most interviews in Tuvalu were conducted at the participant's workplace. However, at the request of participants, interviews were also conducted at the USP Campus in Funafuti, one participant's home and on the beach. One interview was conducted at the Lodge I was staying at during the Forum, as the interviewee was also staying there. At COP24 in Katowice, all of the interviews were conducted at the Conference Centre. Over 90% of the interviews conducted were recorded.

Following the completion of an interview, I would transcribe the recording at the earliest opportunity, noting non-verbal forms of communication, the tone of the interview and other reflections that I had. Alongside the observation in my fieldwork diary and analysis of secondary sources, I conducted systematic coding across the qualitative data that I had collected, initially using descriptive codes such as "land reclamation", "sinking" and "bilateral diplomacy" to note common themes, projects and phrases (Bernard and Ryan, 2010; Secor, 2010). Once this was completed, through an ongoing process of reading and rereading the transcripts, I developed more complex analytical codes which cut across participants, field sites and methods (Cope and Kurtz, 2016).

3.4. Participant Observation

3.4.1. COP 24: Katowice, December 2018

As discussed in the previous chapter, climate diplomacy is increasingly conducted through conferences with these sites of interest to geographers and political scientists (Brun, 2016; Mahony and Hulme, 2018). The annual COP to the UNFCCC is the most prominent climate change conference. Since the first COP in Berlin in 1995, the Conference has been hosted annually by various cities around the world – with the largest COP in Paris in 2015 attracting over 150 world leaders – and large amounts of global media attention (e.g. Harvey, 2015; Plumer, 2018; Tsang, 2019). Small island states have used the COP as a platform to conduct climate diplomacy on a global scale with small island states playing a highly visible, and crucial, role in the negotiating period in the run-up to COP 21 in Paris and the subsequent Paris Agreement (Ourbak and Magnan, 2018). At COP 23, in 2017, Fiji was the first small island state to hold the Presidency although the conference itself was held in Bonn, Germany for logistical reasons. Despite high expectations, Benjamin et al. (2018) note how the key priorities for small island states, such as loss and damage, did not see significant movement at COP23.

Although large-scale conferences such as COP are prefaced by negotiations, meetings and coordination, the conference itself remains an important and integral space for climate diplomacy. Reflecting the discussion in the previous chapter and Megoran's (2006) call for the greater use of ethnography within political geography, I suggest that conferences provide a fruitful space for research using ethnographic techniques. Within ethnographic research, Laurier (2016) argues that "participant-observation is the foundation of ethnographic research and is built from two familiar parts: observations and participation…the power of participant-observation lies in its intimacy with, and grounded perspective upon, the places, practices and people studied" (pp. 170).

Notwithstanding this, there remains scepticism amongst some geographers about the extension of ethnography to spheres of foreign policy. Kuus offers an intervention that "the term ethnography is used as shorthand for close-up detail derived from participant observation… although they use the idiom of ethnographic fieldwork and writing, the actual empirical analysis is built on a mix of interviews, documentary analysis, and some ethnographic observation" (2013, pp. 117). Traditionally, ethnography has been understood as a prolonged research methodology as "anthropologists argue that, if one is really to understand a group of people, one must engage in an extended period of observation" (Silverman; 2005, pp.49). Extended periods of observation are not a possibility for those interested in climate change conferences due to their ephemeral and temporary nature. Peck and Theodore (2015) speak about the demanding objective of policy ethnographies within qualitative research to penetrate the "assumptive worlds" of policy actors to watch and interact with people in their own territory. Scholars who have conducted research at international conferences have noted how ethnographic practices can be adapted. Hagerman et al. (2012), upon conducting research at the tenth Conference of the Parties to the Convention Biological Diversity, note that conference ethnography "applies ethnographic research practice modified to suit public meetings and events as field sites. As such it includes document analysis, participant observations and interviews" (pp. 736). This research draws upon these ethnographic techniques; a significant focus has been placed on elite interviews with participants at COP. This echoes Kuus' argument that "all social science knowledge production is relational: an interview as much as participant observation. In the study of foreign policy and related spheres, interviews may be not the second best method but often the only viable method and we need to be unapologetic about this" (Kuus, 2013, pp.127).

The 24th United Nations Climate Change Conference, more commonly known as COP24, was held in Katowice between the 2nd and 15th of December and was hosted by the COP24 Presidency of Poland. I attended the conference as part of the University of Oxford delegation during Week One and with the Green Economics Institute during Week Two. The Green Economics Institute is a UK based think-tank, I became affiliated with the Institute in the second week after meeting the CEO during Week One of COP. My research consisted of participant-observation at 45 events, eight elite interviews and wider participant-observation of the conference (See appendices). An extensive field diary was kept noting observations, thoughts and ideas throughout the conference. Whilst attending COP24, the Pacific and Koronivia Pavilion provided a key site for my research with 23 of the 45 events I attended hosted by the Pavilion. Following on from Fiji's presidency of the 23rd United Nations Climate Change Conference, Fiji and New Zealand co-sponsored 'The Pacific and Koronivia Pavilion' at COP24. The Pacific and Koronivia Pavilion was jointly managed by multiple regional organisation including the Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific Islands Forum Secretariat (PIF), Pacific Community (SPC) and the Pacific Islands Development Forum (PIDF). Consequently, the Pacific Pavilion was promoted as a 'Pacific Partnership' with pavilion staff drawn from across these regional organisations wearing traditional bula shirts and adorned with flowers in the style of Pacific Islanders. Nominally, the Pavilion was trying to maintain the momentum behind Fiji's initiatives on oceans, islands and agriculture launched at the previous COP. Principally this was via the process of 'talanoa' which describes the Fijian practice of reflective, inclusive and participatory dialogue between stakeholders.

The pavilion was envisioned as a space in which issues of potency to the Pacific could be discussed and Pacific delegations could host events. The Side Events Programme was centred around themed days. These included issues of particular importance to the Pacific such as: ‘Strengthening Adaptation and Resilience’, ‘Ocean Ambition Day’, ‘Ocean Pathway’ and ‘Human Settlements, Decent Work and Climate Justice’. Events ranged from panel discussions, presentations, launch events for guidelines to film screenings and drink receptions. Organisers included state and non-state actors including regional organisation, NGOs and the private sector. Largely my participant observation would include observation of presentations, discussions and questions amongst other delegates. Occasionally I would ask a question or engage in discussions. Whilst attending drinks receptions, I would use the time to speak to potential interview participants or contacts I had already made during my time in the Pacific.

During the week, the Pavilion became an informal space for the interactions of Pacific delegates with certain delegates frequently utilising the space. The ephemeral nature of conferences can help to overcome some of the limitations of ethnography notably the difficulties of utilising ethnographic techniques within foreign policy communities (Kuus, 2013). Limb and Dwyer (2001) comment that “participant observers can never fully shed their status as outsiders; however there are some steps that one can take to incorporate oneself more easily into a community” (pp. 153). Although many delegates were familiar with one another from previous COPs or other events, COPs are not pre-formed communities and their nebulous and fluid nature allows for researchers attending to integrate themselves within particular groups. Access via my affiliation with a university delegation gave me legitimacy as an actor within the conference space – demonstrated by my observer badge. It was notable that when speaking to other delegates my previous

fieldwork in Fiji and Tuvalu, as well as my association with the University of the South Pacific as a visiting research fellow, and familiarity with delegates I had met previously in the Pacific legitimised my presence as a researcher. My previous research lent credibility towards my position as a researcher with a sustained interested in the Pacific in contrast to the plethora of journalist who interviewed Pacific Island delegates during COP in the vein of romanticised, exotic "others".[5] Informal conversations with delegates from the Pacific indicated both their recognition of COP as both an opportunity to raise the profile of their position and frustration of the transient nature of interest in the Pacific.

I became familiar with the staff running the Pavilion and the other delegates who were frequently in the Pavilion. One member of the Pavilion staff referred to me as "our resident academic" when introducing me to conference delegates and potential participants. My experience echoed the description of Laurier (2016, pp. 173) who states that "the group around you will change how they categorise you as you shift from a "newby" or a beginner" to whatever they call a competent and/or accepted member or practitioner". Informal interactions with participants from small island states over coffee, lunch and drinks receptions allowed me to build relationships with a range of delegates. These "uneventful encounters with one's respondents… are the earmark of participant observation" (Limb and Dwyer, 2001, pp. 153). Consequently, as the COP progressed delegates began to discuss how negotiations were developing. This was important as although my affiliation gave me access to spaces such as Side Events, the Pavilions and Exhibitions, my status as an observer excluded me from key negotiations reserved for

[5] An obvious demonstration of this was when a Polish television crew asked the Pavilion coordinator for a delegate to interview. Subsequently, upon being introduced to a suit wearing male delegate who was the Secretary-General of a large regional organisation, the journalist responded that "No, we want somebody with a flower. Someone who can give us a view of their island".

state actors and as such, I was unable to attend the SIDS or Alliance of Small Island States (AOSIS) coordination meetings. Nevertheless, it is worth acknowledging that these accounts are only partial. They are subject to the ability of delegates to recall events from memory as well as a presentation of how delegates wish to portray the state of negotiations.

Of the eight participants that I interviewed at COP24, five were approached following events at the Pacific Pavilion including representatives from Palau, Fiji and Kiribati. Interviews with a Pacific Regional Organisation representative, a representative of PIDF, a representative of the Tuvaluan Climate Action Network and a representative from the Fiji delegation took place in the Pavilion. Located towards the back of the Pavilion, there was a small seating area with stools and tables in which informal meetings could take place. Although these interviews were conducted in public, and held among fellow delegates, there were few suitable places for interviews at the COP.[6]

Nevertheless, there were challenges and limitations associated with this aspect of the research. One of the main challenges of conducting qualitative research at an international conference such as COP is the sheer size of the event. With a total of 22,771 registered participants, including 13,898 representing specific parties, the event was vast in scale. Spread across a large site, it was only possible to attend a fraction of the events that may have been relevant for this research. Although other researchers and delegates alerted me to events pertinent to my research via Whatsapp, I was often unable to attend relevant events due to scheduling clashes. Moreover, potential participants were

[6] With a larger concentration of researchers and journalists, it was common to see interviews being held in corridors or dining areas. I conducted one interview at the empty Russian Pavilion at the request of the participant.

often difficult to track down to the hectic nature of COP with some interviews rescheduled multiple times. A major limitation is that this research was only conducted at one COP. Notably, COP24 may not be reflective of the usual experience of small island states at COPs as it followed on from the Fijian Presidency in 2017/2018. Several delegates remarked that despite the obvious legacy of the Fijian Presidency, through the Pacific and Koronivia Pavilion, many Pacific islands sent smaller delegations to Poland compared to the previous year. Tuvalu and Kiribati each sent delegations of approximately twenty representatives to COP24 with both the President of Kiribati and the Prime Minister of Tuvalu attending[7].

Side-events provide a venue for information dissemination, capacity building, introducing novel items and providing a forum that is inclusive of a broader range of organisations and actors than formal negotiations (Hjerpe and Linnér, 2010). The attendance of delegates from Kiribati at side events focused on information dissemination and networking opportunities with other small island states (Schroeder and Lovell, 2012). Notably, Choi Yeeting, Presidential Adviser on Climate Change, spoke at the side event hosted by the PIF on “Pacific SIDS country perspectives on accessing climate change finance” focusing on the Kiribati Vision 20. Tearinaki Tanielu, an AOSIS fellow from Kiribati, spoke at the “Knowledge Sharing Between Pacific, Caribbean and Indian Ocean

[7] Kiribati’s delegation included the Minister for the Line and Phoenix Island Development, Ministry of Environment, Lands and Agricultural Development and the Minister of Finance and Economic Development. Other ministries represented included the Ministry of Foreign Affairs and Immigration, Ministry of Fisheries and Marine Resources Development and Ministry of Infrastructure and Sustainable Energy. Tuvalu’s delegation included the Minister of Foreign Affairs, the Ambassador for Climate Change and Environment, Director of the Department of Climate Change and Disaster and the Ambassador to the EU.

SIDS" co-hosted by the Solar Head of State and PIDF. Tuvalu co-hosted its own side event entitled "Climate-Forced Displacement (CFD): Progress to Advance Human Rights and Justice since the Paris Agreement". Youth ambassador Emily Panupa and a representative from the Tuvaluan Met Office spoke at the SPREP Side Event "Living in the face of climate change: From the Pacific islands to the world".

3.4.3. The 50th Pacific Islands Forum in Funafuti, August 2019

Originally founded in 1971, as the South Pacific Forum, before being renamed in 1999, the Pacific Islands Forum (PIF) is an inter-governmental organisation that facilitates cooperation between 18 countries and territories in the Pacific, as well as representing the collective interests of its membership beyond the Pacific. The Forum Secretariat is headquartered in Suva, but the Forum Chair rotates annually between the member states with the Chair hosting the annually Leader's Meeting. Although the Forum has a broad remit covering economic, political and social issues, in recent years the Forum has become dominated by negotiations on climate change. This prioritisation of climate change is evident in the Forum's 2008 Niue Declaration on Climate Change and the 2018 Boe Declaration on Regional Security. In 2019, from August 13th to August 16th, Tuvalu hosted the 50th Pacific Island Forum Leader's Meeting. This was the largest diplomatic event that Tuvalu has hosted in its history, with over 600 delegates attended the weeklong conference. Delegates included representatives from all eighteen members, including fifteen heads of state such as Australian Prime Minister Scott Morrison, New Zealand Prime Minister Jacinda Ardern and Kiribati President Taneti Maamau. Alongside heads of state, delegations consisted of ministers, diplomats and civil servants. Beyond the Forum members, other states sent delegations including Western states such as the

United States, France, the UK and Germany – with most delegations consisting of diplomatic staff based in Suva. Alongside these, there were also numerous delegations from other states including PRC, Japan, Singapore, Chile, the Republic of China (ROC) and Cuba. In addition, there were representatives from all of the CROP agencies as well as multilateral institutions such as the Asian Development Bank, the Commonwealth Secretariat, the UN, World Bank and the World Health Organisation. Representatives were also present from civil society and the private sector with a number of journalists covering the Forum.

Arriving three weeks before the Forum allowed me to observe the preparations for the conference. I attended numerous events in the run-up to the Forum such as the Youth Climate Change Forum, the closing ceremony of the Youth Climate Change Forum and the grand opening of the Rt Honourable Doctor Sir Tomasi Puapua Convention Centre. Ordinarily, Funafuti has a resident population of just over 6000; consequently, with other 600 delegates attending, the Forum provided a major logistical, as well as diplomatic challenge. Logistical support was provided by the Australian and New Zealand militaries, Tuvalu is usually served by three flights per week but in the run-up to, and for the duration of the Forum, this increased dramatically with up to a dozen flights per week.[8] Due to the limited availability of accommodation in Funafuti, temporary accommodation blocks were constructed beside the lagoon and the runway to house delegates as well as numerous private homes being hired out. The Forum dominated daily life in Funafuti,

[8] Given the focus of the Forum on climate change, this felt hypocritical given the nature of some of the cargo, with one flight carrying a solitary forklift truck. Military personnel and supplies began arriving weeks in advance of the Forum.

with numerous rumours circulating daily about the preparation for the event.[9] On August 7th, Tuvalu had a public holiday entitled “Tidy up Tuvalu” which saw hundreds of Tuvaluans painting road markings, sweeping streets, tidying yards and clearing foliage. Banners made by children adorned the street accompanied by the flags of Member states. Moreover, prior to the Forum there was a euthanasia program to remove stray dogs from the island. In addition, the Forum placed clear material strains on the island. Prior to the Forum, there were frequent power cuts due to the construction work and concern over water availability with the increased population.

Given the prioritisation of climate change within Tuvalu’s foreign policy, and the dominance of climate change within Forum discussions, the 50th PIF provided a unique opportunity to study the processes and practices of climate diplomacy. Indeed, the Rt Honourable Doctor Sir Tomasi Puapua Convention Centre has been constructed on reclaimed land in order to host the Forum. Moreover, before the formal start of the forum, Tuvalu hosted a Climate Change Sautalaga on the 12th of August with the PSIDS Heads of State to coordinate their position on climate change and set the tone for the conference. A Sautalaga is a traditional Tuvaluan word used to describe a process of inclusive, participatory and open dialogue in order to inform decisions for the common good.

As a result of its small size, Tuvalu has limited resources to dedicate to foreign policy with its most experienced diplomats posted to its five overseas embassies. However, during the Forum, all of Tuvalu’s overseas representatives including the Ambassador for Climate

[9] Much of the speculation was critical of the Australian military’s preparation, for instance, a common rumour was that prior to their delegation arriving, soldiers had stripped the bedsheets of the delegation’s guesthouse and replaced them with Australian linen.

Change and the Environment returned to Funafuti. More broadly, there is a high degree of mobility among government officials, civil servants and Ministers. Frequently, officials travel to the outer islands of Tuvalu for several weeks at a time and there are numerous regional and international meetings and workshops which can lead to extended trips abroad. As such, the Forum provided a unique situation because the entirety of the Tuvaluan Government, diplomatic corps and civil service were in Funafuti for an extended period of time. Through my position as a Visiting Research Fellow at USP, I was accredited to the conference as an observer with access to the Convention centre. As an observer, I conducted participant observation at a total of eleven events. These included the Climate Change Sautalaga, the Opening and Closing Ceremonies, Side Events, Drink Receptions, Fateles, Dinners and Press Conferences. Most events were hosted in the Convention Centre, however other venues in Funafuti were used such as the Funafuti Lagoon Hotel were also used. Typically, I would spend the day "hanging out" at the Convention Centre. If I was not attending formal events, I would speak to diplomats, politicians and NGOs over coffee in the Maneapa. Moreover, when a notable dignitary was arriving, I would spend time at Funafuti International Airport to watch the welcoming party with the airport only 150m or so away from the Convention Centre. Following negotiations and events during the day, there would be a communal dinner and Fatele each evening with all delegates invited. Whilst still observing formal diplomatic protocol, these events were more informal than the COP facilitating interactions between all of the delegates with Heads of State mixing with NGO representatives, journalists and Tuvaluans. Given the lack of professional catering companies in Tuvalu, food was prepared in domestic kitchens with different island communities responsible for each day. Attending as a delegate, I used the evenings to build connections with participants as well as observing

events. As well as dining this also meant partaking in the festivities, which on one occasion, included dancing with the Tuvaluan Prime Minister. Although I did not have access to the closed negotiations, attendance to the various social events and rapport with key actors facilitated conversations about the content and nature of these discussions.

3.5. Participant Observation Beyond the Forum

Whilst in Tuvalu, I also undertook in participant observation beyond the PIF. In Funafuti, I visited and toured numerous small-scale climate adaptation projects such as the Taiwanese Agricultural Project, an EU funded climate resilience project focusing on agroforestry systems, and improvised sea defences (see Appendix B). Throughout my time in Tuvalu, I kept a field diary noting down observations on climate adaptation, relevant conversations with Tuvaluans and my own thoughts and opinions. Climate change features prominently within the everyday landscape of life in Funafuti. It is frequently discussed on Radio Tuvalu, billboards promoting climate adaptation projects can be seen around the island and slogans relating to climate change are embellished onto the clothing of its inhabitants.

In July 2019, I conducted participant observation with a USP research team who were training Tuvaluan researches how to use drones to monitor sea level change and its impact on islets in the lagoon. In total, I shadowed the team for four days visiting several islets including Funafala, Tefota, Telele, Paava, Fualefeke and Tepuka.[10] Alongside

[10] Each atoll, such as Funafuti, consists of several smaller islets. Some of these are connected at low tide by sandbars but many are not. Islets vary from small sandbars only a few metres wide to the 12km long Fongafale islet which hosts Funafuti International Airport, most of Funafuti's population and government buildings.

training, the purpose of this visit was to use a drone to map and photography islets which had not been systematically mapped. In addition, I also took multiple boat trips around the lagoon with institutions such as the Tuvalu Fisheries Department, speaking to Tuvaluans about observed changes in the lagoon. Also, through my attachment to USP, I attended numerous events which were explicitly or tangentially linked to climate change such as the Farewell Ceremony for the volunteer with the drone team and a visit to the campus by the New Zealand Minister for Pacific Peoples. Finally, I also undertook a four-day trip to visit three of the outer islands of Tuvalu; Nukufetau, Vaitupu and Nui. During this trip, I visited climate adaptation initiatives such as agricultural resilience projects on Vaitupu, NAPA projects in Nui and the UNDP funded seawall in Nukufetau. During the trip, I visited areas which were affected by Cyclone Pam in 2015 and spoke to Tuvaluans about their perceptions of climate change.

3.6. Secondary Sources

Alongside participant observation and in-depth interviews, I also consulted secondary sources in Funafuti at the Tuvaluan National Library and Archives. The Archives host several documents covering contemporary environmental policy and governance in Tuvalu, including documents published by international organisations on climate change and sea level rise that are relevant to Tuvalu. Documents analysed in the Tuvaluan National Library and Archive date from 1994 to 2016 and include scientific papers, vulnerability assessments and NGO publications (See Appendix D. However, the archives in Funafuti were incomplete, with several key documents missing and notable gaps across some time periods and thematic areas such as climate adaptation. As such, interviews were used to try and address these areas. I also used online secondary sources, including

key documents such as the Kiribati Vision 20 (KV20), the Falesuiti Ecological plans outlines of the Temaiku Project. These materials have been supplemented by secondary sources including articles from both Pacific (Australian Herald, Fiji Times, Radio New Zealand, Sydney Morning Herald) and global (Guardian, Telegraph, New York Times, Washington Post) media as well as the "Anote's Ark Documentary" produced by the former president of Kiribati, Anote Tong (see Appendix D).

3.7. Confidentiality, Sensitivities and Positionality

Whilst in Tuvalu and Fiji, I was acutely aware of my positionality as a British white male. According to the World Tourist Organisation, Tuvalu is the least visited country in the world (UNWTO, 2018). Adopted from the Samoan language, Tuvaluan describe Caucasians or foreigners as palagi with most palagi in Tuvalu either visiting for business, diplomacy or as consultants working in areas such as development or climate adaptation. As a palagi, it was crucial to be aware of local cultural expectations and sensitivities. Many participants were surprised that I visited Tuvalu twice, and for the duration of my research trip. Increasingly, there is a fly-in-fly-out culture of palagi engagement with Tuvalu, many journalists and consultants fly in on the Tuesday flight and fly out again on the Thursday flight. A certain degree of legitimacy stemmed from my affiliation with USP as a Visiting Research Fellow and assisted in gaining access to key actors, particularly within NGOs and the Tuvaluan Government. In Fiji and Tuvalu, the USP is highly respected with many participants being alumni of the University. Consequently, participants were keen to participate in the research with the Campus Director in Tuvalu acting as a key gatekeeper. Conscious of the history of extractive research practices in the Pacific, I was keen to contribute to USP. Whilst in Fiji and Tuvalu, I gave public lectures, supported

students with work and contributed to daily life on campus. Although these engagements often focused on climate change, I also sought to be attentive to where I could be of most benefit and proofread applications and offered interview practice for students applying for international scholarships.

Moreover, during my second trip to the Pacific, I was able to build upon the relationships I had formed the previous year, and at COP24 in Katowice, which was key in securing access to several key participants. Moreover, whilst at the UN Climate Change Summit, my previous fieldwork in Fiji and Tuvalu helped to build rapport with participants. Research is not conducted in a vacuum, and I often met participants multiple times before interviewing them. Funafuti is a small settlement and I developed close friendships with many of my participants. Many Tuvaluans, and ex-pats working in development, adaptation or the education sector, exercised daily at sunrise by walking laps of the runway. Through this therapeutic activity, I was able to speak daily to many participants and hear updates in the run-up to the Forum. Often useful information, such as the arrival time of dignitaries, would be shared via the so-called 'coconut wireless' or word-of-mouth. It is worth acknowledging that my gender facilitated these activities, for instance that I felt safe walking across Funafuti before dawn to meet colleagues at the runway. However, I was acutely aware that I remained an outsider. For instance, there are strict cultural hierarchies during ceremonies and celebrations and as a palagi I was expected to eat first with the most senior official present. At several instances, despite the many privileges I held, I was acutely aware of my age. In Tuvalu, and the Pacific more broadly, 23 or 24 is considered a particularly young age to be conducting doctoral research. Several participants commented on this, with a few joking that if I grew a beard I would be taken more seriously.

Although I can speak a few basic Tuvaluan phrases, I do not understand Tuvaluan. Whilst this was not an issue during interviews, some of the events I conducted participant observation at were held in both Tuvaluan and English. For instance, the Youth Climate Change Forum which was held in August 2019 was mostly in Tuvaluan. Although presentation slides were written in English and participants occasionally conveyed in English. At the Opening of the Conference Centre and Closing of the Youth Climate Change Forum, some of the speeches were given in Tuvaluan but notably the Prime Minister only spoke in English as did many of the youth representatives. The diplomatic corps were present in the audience. During the Pacific Island Forum, all formal speeches and panels were given in English and most delegates conversed in English.

Climate change is a sensitive and emotional issue. Many participants are deeply concerned for the future and as such interviews, at times, touched on areas that were upsetting for participants. Consequently, I was conscious of engaging in active listening allowing participants to explore areas they felt comfortable speaking about and not to push into upsetting topics. A few participants cried during interviews, but were, however, keen to carry on in order to share their stories and perspectives. Whilst speaking to i-Kiribati, I was highly conscious of the shift of government policy and the sensitivities around discussing climate migration. Informed consent was key, with some participants stressing the importance of anonymity given that their views diverged from the formal government position. Pseudonyms have been throughout the thesis to anonymise the participants. Occasionally, participants requested to merely by identified as a “Pacific Islander” as their nationality within some organisations would allow them to be identified. In order to reflect the positionality of the participant, Western pseudonyms have been used for Wester participants and Pacifica pseudonyms for Pacific Islanders.

Approval was obtained from the University of Oxford Central Ethics Committee (CUREC) before this research was conducted with informed, written consent obtained from all participants. Following the completion of interviews, they were transcribed as soon as possible, and the recordings deleted. All data was password protected and held on the university server.

Chapter 4. Atoll Politics, Histories and Environments in Tuvalu and Kiribati

4.1 Introduction

Kiribati and Tuvalu share a common colonial history, similar island geomorphologies, and face comparable impacts from climate change. As such, they are often invoked as poster children of the climate emergency and are used interchangeably within apocalyptic climate narratives as synonyms for a vulnerable state (e.g. UN, 2019; Commonwealth 2020). Nevertheless, there are significant political, cultural, and environmental differences between the two states that have led to a divergence in their governments' responses to climate change.

In order to understand the geopolitics of climate change within Tuvalu and Kiribati, it is crucial to situate these within the broader histories, physical and environmental geographies, and the current geopolitical situations of the two states, as they are integral in the construction and contestation of future climate imaginaries. With that intention, this chapter draws upon contemporary scholarship on Tuvalu and Kiribati as well as grey literature covering contemporary adaptation projects, regional organisations and news articles, to contextualise their geopolitics, adaptation and diplomacy.

Firstly, this chapter provides an overview of Tuvalu and Kiribati's precolonial, colonial and postcolonial history. This is then situated within the broader institutional architecture of Pacific regionalism and foreign relations of the region. It then goes on to review the contemporary literature on sea level rise and atolls, and the implications of climate change for the island geomorphology of Kiribati and Tuvalu. Consequently, it segues into a consideration of the cultural significance of land within Micronesian and Polynesian

societies and how this frames understandings of climate change and approaches to climate change adaptation.

4.2. Precolonial and Colonial History: Settlement, Colonisation and Occupation

Kiribati is an island nation in the Western Pacific consisting of 34 atoll and reef islands across three island groups: Gilbert, Line and Phoenix[11]. Spanning all four hemispheres, the island state has an exclusive economic zone of over 3.5 million km^2 and an average elevation of just two metres above sea level (Hughes, 1992; Becker et al., 2012). According to the 2015 census, the population is 103,058 (Ministry of Finance, 2015). It is unclear exactly when, or who, first settled Kiribati but approximately 4000 or 5000 years ago, the first humans are likely to have arrived from southern Melanesia (MacDonald, 1982). Different forms of evidence, however, point to different original settler communities and settlement dates. For instance, linguistic evidence has suggested some ancestors of the Melanesian people in Kiribati actually arrived via Micronesia (ibid, 1982). I-Kiribati myths, on the other hand, suggest there was a migration from Samoa to the Gilbert Islands in the 14th century, with genetic profiles of the islanders indicting there was a genealogical influx in the 14th century (MacDonald, 1982). What is clear, though, is that in 1788 Thomas Gilbert passed through contemporary Kiribati aboard the British vessel Charlotte. Later, in 1820, the island chain was named after Gilbert by Russian admiral Adam von Krusenstern (McQuarrie, 2000).

[11] The Gilbert Islands consist of 16 islands which are all inhabited, the Line Islands consist of 8 islands of which three an inhabited and the Phoenix Islands consist of 8 islands of which only one is inhabited. Separate to the three chains, the raised coral island of Banaba has a population of 295. Just over 50,000 of Kiribati's population live on the capital of South Tarawa in the Gilbert Islands (Ministry of Finance, 2015).

Located in the South Pacific, the Polynesian state of Tuvalu is one of the world's smallest sovereign states with a land area of $26km^2$ and an approximate population of 11,000 across nine atolls[12]. It has an exclusive economic zone of 900,000 km^2 (Kench et al. 2018; FAO, 2020). Oral tradition suggests Tuvalu was first settled directly, or indirectly, from Samoa or a nearby island group between 300 to 500 AD (Besnier, 2000). The Spanish explorer Mendaña sighted Nui and Nuilakita as early as 1568 and 1595 respectively, but Tuvalu largely lay beyond the interest of Europeans until the 19th century. However, the islands of Tuvalu were not without external influence prior to European colonisation with other accounts suggesting that the island of Nui was invaded by Gilbertese warriors at some stage in the 17th or 18th century (Besnier, 2000). Funafuti atoll was named Ellice's Island in 1819, after Edward Ellice with the name later extended to encompass all of the islands of Tuvalu (Kofe and Laracy, 1983).

Early contact with Europeans was dominated by trade, with the initial Tuvaluan and i-Kiribati's interactions predominately focusing on whaling and a limited coconut trade. It is estimated that approximately 1000 boats landed in the Gilbert and Ellice Island groups between 1820 and 1870 (MacDonald, 1982). Due to their remote location, low population densities and limited interactions with Europeans, Christian missionaries were largely uninterested in the island until the latter part of the 19th century with the first missionary arriving in Kiribati in 1857 and Tuvalu in 1861 (Faaniu and Laracy, 1983). Within Melanesia and Micronesia, the British Government was increasingly concerned in the late 19th century over the inability of the Western Pacific High Commission to deal

[12] Tuvalu consists of nine islands: Funafuti, Nanumea, Nui, Nukufetau, Nukulaelae, Vaitupu, Nanumanga, Niulakita and Niutao. All are inhabited with just over half of Tuvalu's population in Funafuti, the capital (Tuvalu Central Statistics Division, 2012).

with lawless subjects, particularly on the practice of blackbirding, the coercion of islanders through kidnapping or deception into forced labour in other territories (McIntyre, 2014). Blackbirding decimated the populations of both Kiribati and Tuvalu, for instance in 1863 blackbirders kidnapped 79% of Nukulaelae's adult male population (McQuarrie, 1994; 2000). Alongside fears of German expansion, the practice of blackbirding prompted the British Empire to declare the Gilbert and Ellice Islands Protectorate in 1892. In 1915, the protectorate became the Gilbert and Ellice Islands Colony before being expanded first in 1916 to include Banaba (Ocean) Island and the Northern Line Islands and then again in 1919 to encompass Kiritimati Island (Christmas) Island and Tokelau (McIntyre, 2014). Tokelau, however, was later removed from the colony in 1924 and subsequently administered by New Zealand (McQuarrie, 2000).

Colonial rule was disrupted for some of the colony's islands by the Second World War. Shortly after Pearl Harbour, the Japanese captured the Northern Gilbert Islands with Banaba and other islands in the Gilbert group subsequently bombed and occupied by Japan (McQuarrie, 2000). During the war, Funafuti in Tuvalu was used as an airstrip by the Americans and was bombed by the Japanese in 1943 (McQuarrie, 1994). The war had a lasting legacy on the societies, environments and governance of the area. Notably, the natural environment of the atolls was significantly disturbed during the war, through the building of fortifications, airfields and roads (McQuarrie, 1994; 2000). After the war ended, the colonial government moved the administration from Banaba to South Tarawa. The transport and communication during the war increased the connectivity between South Tarawa, and the colony more broadly, with the rest of the Pacific (McQuarrie, 2000).

Following the war, the British Government expanded its presence in the Gilbert and Ellice Islands Colony considerably through the Colonial Development Welfare Grants and a Land Commission (Hughes, 1992). Notably, there were numerous resettlement programs throughout the colony. Shortly following the war, around 250 Tuvaluans were resettled on Kioa Island off Vanua Levu, Fiji (Besnier, 2000). Although the community remains on Kioa to this day, ties with Tuvalu have loosened in recent decades. Under the Phoenix Island Settlement Scheme, the Gilbertese were relocated allegedly to alleviate environmental pressures on the densely populated islands such as South Tarawa based on Malthusian population principles, however, in reality the relocation reinforced British claims to the sparsely populated Phoenix Islands (Weber, 2016). In total, 600 Gilbertese were relocated from the Southern Gilbert Islands to the Phoenix Islands in the 1940s, although many of these were later evacuated to the Solomon Islands Protectorate in the late 1950s and early 1960s following a series of droughts in the Phoenix Islands (Hughes, 1992). These colonial experiences of relocation continue to shape contemporary understandings and perceptions of migration as a response to environmental change (Weber, 2016).

Relocation during the colonial era also occurred to facilitate resource extraction. Throughout the colonial era, the mobility of labourers was relatively high, with hundreds of people travelling to work in the phosphate mines of Banaba Island and Nauru. Banaba Island held extensive phosphate deposits and had been gradually degraded by mining since 1900 and at one stage generating over half of the protectorate's revenue (Edwards, 2014; McIntyre, 2014). Given the high-grade of the phosphate on Banaba, the indigenous population was viewed as an awkward obstacle to full exploitation leading to the purchase of Rabi Island in Fiji as a potential island for resettlement (McAdam, 2017).

Occupied by the Japanese during the war, the indigenous Banabans were deported. After the end of the war, the British regained control and prevented the Banabans from returning home and resettled the population on Rabi Island (Edwards, 2014; McAdam, 2017). Subsequently, the Banabans sought independence in 1948 before later seeking free association status with Fiji in the 1960s and 1970s although the efforts were rejected firstly by the British and later by the i-Kiribati as a threat to their territorial integrity (McAdam, 2017). Although subject to Fijian law, the resettled Banabans enjoy unique constitutional status with rights of entry, residence, and parliamentary representation in Kiribati even though they do not hold i-Kiribati citizenship. They have consequently been heralded as a potential model for i-Kiribati displaced by climate change in the future (McAdam, 2017; Edwards, 2014; McAdam and Ferris, 2015).

Contemporary perceptions of climate change are framed by broader memories of environmental degradation during the colonial era beyond just phosphate mining. Under the codename of Operation Grapple, Britain tested nine hydrogen and atomic bomb at Malden Island and Kiritimati (Christmas) Island between 1957 and 1958, now both part of Kiribati (Maclellan, 2017). Moreover, the United States conducted 24 atmospheric tests at Kiritimati Island in 1962. The legacy of British and American testing is still apparent today, with effects on human health and the environment as well as the traumatic legacy among the population in Kiritimati (Alexis-Martin, 2019).

Momentum towards independence for the colony began in the late 1960s with the 1967 Gilbert and Ellice Islands Order establishing a Governing council, official and elected members and a legislative system (Hughes, 1992). In 1972, the Gilbert and Ellice Islands Colony was formally separated from the Western Pacific High Commission. However, the

Polynesian Ellice Islanders wanted to cede from the Gilbert Islands and became independent as their own sovereign state, fearing that their culture would become subsumed within a larger Micronesian dominated Gilbertese state (McIntyre, 2014). Following a referendum in which 94% of the population supported separation on a turnout of 88%, Tuvalu became an independent state in 1978 (Goldsmith, 2012). Kiribati became independent the following year in 1979. Tuvalu means "eight standing together" in Tuvaluan, reflecting the fact that before European contact only eight of the nine islands of Tuvalu were inhabited. Niulakita, the most southerly atoll of the group, was not permanently settled until the 20th century when it was settled to produce copra by the Niutao Islanders (Besnier, 2000). Scholars have speculated that the indigenous name for the Gilbert Islands is Tungaru but upon independence i-Kiribati politicians named the state Kiribati. This was intended to reflect the inclusion of the Phoenix and Line Island groups in the state which were never considered part of Tungaru and emphasis the modernity of Kiribati (Grimble and Maude, 1989; MacDonald, 1982). Shortly following their independence, both Tuvalu and Kiribati signed separate Treaties of Friendship with the United States in which the US renounced its historical claims to sovereignty over some of their islands (McIntyre, 2014)[13].

4.3. Tuvalu's history post-1978

Following independence, Tuvalu was only allocated one of the colonies' ships and received no money from the Revenue Equalisation Reserve Fund which had been financed through the phosphate mining in the Gilbert and Ellice Islands Colony

[13] The United State had claimed sovereignty over 18 islands of the Gilbert and Ellice Island Colony, the treaties signed in 1979 revoked the US claims to 4 Tuvaluan and 14 i-Kiribati islands (McIntyre, 2014).

(Goldsmith, 2015). In 1980, Tuvalu depended on the UK for nearly one-third of its national budget, alongside significant international development aid from Australia and New Zealand (Thompson, 2001). Consequently, finances were a significant concern immediately following independence and the newly independent government set about establishing a trust fund. Established in 1987, the Tuvalu Trust Fund (TTF) was supported by the UK, Australia and New Zealand with funds of just over $27.1m to maintain and stabilise the Tuvaluan national budget (Goldsmith, 2012). As a multimillion-dollar investment vehicle, the TTF has been supplemented by so-called “resources of jurisdiction” (Besnier, 2016, pp.31) such as Tuvalu’s fortuitously awarded internet domain name (.tv), registration of ships with the Tuvaluan flag through a Singapore-based ship registry and the sale of foreign fishing licenses through the Pacific Island Forum Fisheries Agency (Goldsmith, 2015; Conway, 2015). Assigned in the 1980s, Tuvalu’s ownership of the .tv Top-Level Domain name has proved a lucrative asset given its demand from television channels and has earned the Tuvaluan Government between AU$2.06 million and AU$5.51 million per year (Conway, 2015). Significantly, all of these sources of income post-independence rest on Tuvalu’s status as an independent sovereign state which is seen as being under threat due to sea level rise.

Remittances are significant in supporting Tuvalu’s economy, with significant numbers of Tuvaluans working as merchant seamen on foreign vessels, peaking at between 400 and 500 in the late 1990s although numbers have declined to well below 100 due to growing international labour competition and the steady decline in Tuvalu’s Maritime Training Institute (Conway, 2015). More recently, up to 75 Tuvaluans per year have migrated to New Zealand through the Pacific Access Category with smaller numbers migrating to Fiji and Australia (Bedford et al., 2016). Labour mobility is seen as an increasing priority for

the Polynesian state as Tuvalu's population is forecast to grow to a projected 19,600 by 2050 (Bedord et al., 2016). Discussions of future labour mobility, and possible forced migration, is framed by the issue of climate change.

Since the late 1980s, Tuvalu has been identified as extremely vulnerable to climate change with the UN listing Tuvalu, alongside Kiribati, in 1989 as one of the island states most likely to disappear due to rising sea levels (Roy and Connell, 1991). Besnier (2016, pp.5) argues that "since independence, and particularly since the beginning of the millennium, Tuvalu has become the object of frequent newspaper-column-filling journalistic attention in industrial countries, much of which emphasizes the remoteness and vulnerability of the country." Within the global press, most coverage of Tuvalu in recent decades has focused on the issue of climate change. Goldsmith (2015) argues that the symbolic role of Tuvalu within Western climate narratives has been co-constructed by both Tuvaluan leaders and external commentators. In 2002, Tuvalu proclaimed that it intended to sue the United States at the International Court of Justice for failing to ratify the Kyoto Protocol. Although the action was never pursued, it placed Tuvalu in the international spotlight on matters concerning climate change (Jaschik, 2014; Jacobs 2005). Tuvalu received an upsurge in publicity in 2012, much of which focused on climate change, when the Duke and Duchess of Cambridge visited during Queen Elizabeth's Golden Jubilee (Goldsmith, 2015). Recent meteorological hazards have been framed by the press as ominous of Tuvalu's climate future. In 2015, Tuvalu was struck by Cyclone Pam with almost half of the population affected by the Category Five storm which caused an estimated AU$14 million in damages (World Bank, 2015). More recently, in January 2020, Tuvalu was hit by Cyclone Tino which severely affected half of the population (RNZa, 2020).

4.4. Kiribati's history post-1978

Following independence, and similar to Tuvalu, Kiribati's greatest concern was the economy as its independence coincided with the end of phosphate mining on Banaba island which in 1978 had constituted 45% of GDP, 54% of government revenues and 88% of export earnings (Van Trease, 1993).[14] Kiribati's economy has been framed as restricted by diseconomies of scale, a narrow resource base, its distance from its main export markets, and its limited human capital (ibid, 1993). Coconuts are the only viable commercial crop for export. Despite this, the Revenue Equalisation Reserve Fund has continued to grow since independence, worth over $200 million by 1991 and growing to $600 million today (Van Trease, 1993; SWFI, 2020). With its population predicted to grow to 208,000 by 2050, there is increasing discussion of voluntary economic migration schemes given the limited formal employment within Kiribati's domestic economy (Bedford et al. 2016). There are small diasporas of i-Kiribati in Australia, New Zealand and Fiji as well as a shrinking number of seafarers working on international vessels (Bedford and Bedford, 2010).

In 2006, Kiribati established the Phoenix Islands Protected Area (PIPA), financed by a US-based philanthropic foundation, Conservation International, to support the operations and management of a large marine protected area. Mallin et al. (2019) argue that the establishment of the PIPA in this way undermined Kiribati's sovereign leverage over the PIPA through the relinquishment of decision-making processes to Conservation International. In recent years, Kiribati has made tentative moves towards the

[14] Some historians contend this was not by chance. Van Trease (1993, p.226) argues that "Given the decisive role the BPC [British Phosphate Mining Commission] played in shaping colonial politics in Kiribati – especially in terms of finance – it is not unreasonable to assume the exhaustion of phosphate and the time of independence were orchestrated by Whitehall to coincide"

development of marine resources through a "Blue Economy" framework with exploratory moves towards exploiting deep-sea minerals such as manganese and cobalt as their value increases due to growing demand from the renewable energy sector (Mallin, 2018).

Since the election of Anote Tong as president in 2003, Kiribati has become increasingly prominent on the international stage within climate negotiations. Tong served as president until 2016, having served the maximum term under the constitution of Kiribati, focusing on climate change during his presidency. Under his leadership, Kiribati purchased the Natovatu Estate in 2014, a large tract of freehold land in Vanua Levu in Fiji, nominally for development and food security although many citizens associated the purchase with potential future migration and it was widely reported within the international media as a future refuge for the i-Kiribati (Hermann and Kempf, 2017). Crucially, the purchase was of private property and Fiji did not cede any sovereignty over the land nor was it accompanied by any rights for the i-Kiribati (Doig, 2016). Despite his prominence on the global stage on climate change, Tong's Pillars of Truth Party was defeated in the 2016 Presidential Election by the Tobwaan Kiribati Party candidate Taneti Maamau. Under his leadership, Kiribati has become less visible internationally on climate change.

4.5. The Institutional Architecture of Pacific Regionalism

Since the first Pacific Island States became independent in the mid-1960s, the capacity of small island states in the Pacific to engage in extensive bilateral diplomacy has been limited thus in order to maximise their international presence there has been a concerted commitment to regional diplomacy and joint diplomatic approaches in global forums (Fry and Tarte, 2015a). Following their independence, both Kiribati and Tuvalu joined multiple

regional organisations which have shaped and influenced their foreign policy and diplomacy. Founded in 1988, the Council of Regional Organisations of the Pacific (CROP) facilitates cooperation, coordination and collaboration between the various intergovernmental regional organisations in the Pacific. Membership includes the Pacific Islands Forum Secretariat, the Pacific Community, the Pacific Islands Forum Fisheries Agency, the Secretariat of the Pacific Tourism Organisation, the University of the South Pacific, the Pacific Islands Development Program, the Secretariat of the Pacific Regional Environment Programme, and the Pacific Power Association, with Tuvalu and Kiribati belonging to all institutions. Among these, the Pacific Island Forum (PIF) is perhaps the most prominent internationally, although its dominance of Pacific regionalism has been challenged since 2009, when Fiji was temporarily expelled after failing to hold elections following the 2006 coup d'état. Originally established as the South Pacific Forum in 1971, the PIF was renamed in 2000 to reflect its broadened membership. Since its inception, the forum has sought to exert an assertive attitude, emphasising the Pacific Islands' role in controlling the diplomatic agenda and attempting to create a regional identity[15] (Fry and Tarte, 2015a). Regionally, there is cooperation on environmental issues such as fisheries. Eight states, including both Tuvalu and Kiribati, have signed the Nauru Agreement which was coordinated by the Pacific Islands Forum Fisheries Agency to manage tuna fisheries in the Pacific with tuna access fees providing up to 50% of GDP of both states (Havice, 2018). Whilst the Pacific Regional Environmental Programme (SPREP) was established in 1992 to lead on environmental issues, the PIF is the pre-eminent authority to coordinate action on climate change (Goulding, 2015).

[15] Its membership includes Australia and New Zealand

Climate change has come to dominate regional diplomacy among the Pacific Island States. First discussed at the Pacific Island Forum Leaders meeting in Rarotonga in 1991, leaders have continually called for greater efforts on mitigation and adaptation with the Boe Declaration in 2018 stating that "We affirm that climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific and our commitment to progress the implementation of the Paris Agreement" (Pacific Islands Forum Secretariat, 2018). Pacific Small Island Developing States (PSIDS) have placed climate change adaptation as a key policy priority due to the range of biophysical and societal challenges that they face from shifting climatic conditions. Both Kiribati and Tuvalu have been outspoken within the forum over the past two decades to prioritise climate change as a key regional issue, particularly over access to climate finance. Whilst the Asia-Pacific region is the largest recipient of climate finance, flows of finance are unevenly distributed among states with the bias of finance towards mitigation meaning that these flows fail to address the adaptation needs of PSIDS (Samuwai and Maxwell Hills, 2018). Consequently, Samuwai and Maxwell Hills (2018) argue that PSIDS should be reducing their focus on multilateral and private flows and seek to diversify their sources of climate finance through bilateral and remittance sources to facilitate adaptation to climate change. Increasingly there is a focus on South-South cooperation and island states with larger economies are providing support to smaller island states. For instance, Fijian commercial banks are required to hold 2% of their deposits for loans to the renewable energy sector in Fiji and other Pacific Island States (Tao and Finenko, 2016).

The grouping of PSIDS existed in the early 1990s but it has taken on a dramatically new diplomatic role for the Pacific Island States since 2009 (Fry and Tarte, 2015a). Over the

last decade, there has been a marked elevation in the profile of Pacific Island countries at the UN, taking up leadership positions and greater autonomy from Australia and New Zealand (Manoa, 2015). Established by Fiji in 2013, in response to its expulsion from the PIF, the Pacific Islands Development Forum (PIDF), purports to emphasis a new mode of regionalism and development by placing the PSIDS at its core (Tarte, 2015). Unlike the PIF, Australia and New Zealand are not member states and the PIDF has prioritised new partners such as Russia, PRC and Kuwait. Although Fiji's suspension from the PIF was lifted in 2014, the PIDF has continued to operate and the PSIDS remains a key grouping at the UN.

Within these various groups, it is worth noting the varying presence, and absence, of Australia and New Zealand. Described by Baker (2015) as the umbilical twins, Australia and New Zealand's presence in the Pacific is presented through a number of different lenses. Australia is sometimes presented as leading in the region with New Zealand invariably following; whereas other commentators have framed Australia as "bad cop" and New Zealand as "good cop" (Baker, 2015). Much focus has been paid to the rising influence of PRC in the region alongside the renewed interest of Russia and emergence of new powers such as India, Indonesia, United Arab Emirates and Turkey who are exerting power and influence in the region (O'Keefe, 2015). Whilst Australia and New Zealand both retain strong economic ties with the PRC, there has been increasing concern among policymakers in both states of Chinese influence in the South Pacific (Köllner, 2019). In recent years, Australia has engaged in the "Pacific Step-up" and New Zealand in the "Pacific Reset" increasing financial, diplomatic and technical support with the Pacific to counter the perceived Chinese assertiveness (ibid). Australian Prime Minister Scott Morrison and New Zealand Prime Minister Jacinda Ardern have paid a number of

prominent visits to the region in recent years, with both attending the Pacific Island Forum in 2019 in Funafuti and Ardern attending the Pacific Island Forum in Nauru in 2018 (Anderson, 2018). In 2019, Australia opened a High Commission in Tuvalu as part of its "Pacific Step Up", joining the only other foreign mission, the ROC (Doherty, 2019; Pearlman, 2018). However, Australia's efforts to increase its influence in the region remain constricted by its domestic coal industry, inaction on climate change and frustration of regional efforts to lobby for stronger action on climate change globally (Fry and Tarte, 2015a; Chandramohan, 2020).

Regionally, the PRC's increased presence has also had implications for Taiwanese foreign policy. There is an ongoing competition between the PRC and ROC to secure diplomatic recognition from the Pacific Island States, shaping aid flows and engagements across the region (Atkinson, 2010). Tuvalu formally established diplomatic ties with the ROC in 1979 and both Tuvalu and the ROC have used diplomatic narratives to shape and fortify their national identities (Marinaccio, 2019). Shortly after becoming independent, Kiribati recognised the PRC until switching ties to the ROC in 2003. Kiribati and the ROC then maintained close relations until Kiribati reverted back to its recognition of the PRC in 2019 (Tiezzi, 2020). These wider struggles over recognition have implication for the funding of climate change adaptation and mitigation projects with the ROC providing finance and technical support for climate adaptation in Tuvalu for projects focusing on areas such as agriculture and food security (ICDF, 2020) and PRC offering to fund the construction of artificial islands in Funafuti (BBC, 2019). Following Kiribati's switch, President Maamau justified the switch by stating PRC had more resources and would be a better partner for tackling domestic and global issues such as climate change (Westerman, 2019).

Beyond the Pacific, both Tuvalu and Kiribati are members of the Least Developed Countries Group (LDC), Climate Vulnerable Forum (CVF), the Alliance of Small Island State (AOSIS), the Coalition of Atoll Nations on the Issue of Climate Change (CANCC) with Kiribati also belonging to the G77 and China group. Whilst membership of the LDC, CVF and the G77 and China groups are an important part of Tuvalu and Kiribati's foreign policy, these groups include continental states whose priorities on climate change diverge from that of Tuvalu and Kiribati thus their climate diplomacy has focused on island based groups. In the early 1990s, AOSIS was founded as an ad-hoc negotiating bloc of 43 island states to maximise the voice of island states within the UNFCCC process. However, as the remit of climate governance and diplomacy has expanded in scope, the grouping has become more fragmented with more developed states, such as Singapore, occasionally opposing the AOSIS position (Betzold et al., 2012). In response, CANCC was founded in 2014 by atoll island states to push for more ambitious targets and mitigation efforts than could be negotiated through the much broader AOSIS coalition (SPREP, 2014). The foreign policy of both states prioritises climate change because of the scientific predictions about the potential implications for their islands.

4.6. Climate Science and Atolls

Figure 1: Fongafale, the main islet of the Funafuti atoll - Tuvalu's capital and most populated island (Author, 2019, Funafuti)

Given the topography of Tuvalu and Kiribati, both states have featured prominently within global imaginaries of climate change and sea level rise (see Figure 1). As noted in Chapter 1, the rate of global sea level rise is predicted to accelerate throughout the 21st century with risks related to sea level rise, erosion, flooding, and salinisation, all expected to significantly increase by 2100 along all low-lying coasts in the absence of major additional adaptation efforts (IPCC, 2019a). Under the most pessimistic IPCC forecasts, sea levels could have risen by up to 0.84m although some scientists have argued this remains optimistic and that a rise of 2m lies within the 90% uncertainty bound for a high emissions scenario (IPCC, 2019a; IPCC, 2019b; Bamber et al., 2019). However, sea level

rise in not globally homogenous with sea levels in the Western tropical Pacific rising at three times the global average (Becker et al., 2012).

Typically, just a few metres above the high tide mark, these predictions have profound implications for atolls islands such as those of Tuvalu and Kiribati. Indeed, even in a low emissions scenario, urban atoll islands are expected to experience moderate to high risk of flooding relative to today (IPCC, 2019a). Although within popular imaginaries, the trope of inundation is most prevalent, sea level rise presents an array of issues for atoll states and their inhabitants. Indeed, Storlazzi et al. (2018) argue that due to wave-driven overwash, and its impact on freshwater availability, that by the middle of the 21st-century annual flooding will render most atolls uninhabitable. Whilst these events will have profound impacts on the population, storm and wave-driven overwash can contribute to island formation through the deposition of reef-derived sediment thus increasing the durability, but not the habitability, of atolls. Dickinson (2009) argues that changes in sea level and ambient high tide levels means that stable islets would be destroyed by wave attack long before they are inundated, suggesting the conditions for enhanced fair-weather attacks could occur by 2070 for Tuvalu and 2140 for Kiribati. These changing conditions will exacerbate existing environmental problems. South Tarawa’s freshwater lens, already contaminated with pathogens, toxic substances, oil, heavy metals and plastics, is likely to become inundated with saltwater as sea levels rise (Piciocchi et al., 2017). In Fongafale, the most populated islet of Funafuti Atoll, the original landform characteristics of the island, with the central part of the island dominated by swampland, have increased vulnerability to spring tides and sea level rise (Yamano et al., 2007).

However, there is growing research suggesting the relationship between atolls and sea level rise may be more complex. Despite the recorded increase in sea levels, quantitative analysis of physical changes in 27 atoll islands in the central Pacific over a 19 to 61-year time period shows that 86% of islands are stable with only 14% seeing a net reduction in land area (Webb and Kench, 2010). Despite sea levels in Tuvalu rising at twice the global average Tuvalu's land area has seen a net increase of 2.9% with eight of its nine atolls increasing in size (Kench et al., 2018). These findings suggest that atolls are geomorphologically persistent on atoll reef platforms, as their position on the reef platform can change despite rising sea levels. Based on analysis of shore and island change since 1897, McLean and Kench (2015, pp.456) argue that "by the end of the 21st century, we expect the majority of the present atoll islands in the central and western Pacific to be still there, providing the scale of future climate–ocean processes does not accelerate much beyond those projected in the IPCC Fifth Assessment". Atolls are heterogeneous in nature, thus respond in an idiosyncratic way to global environmental change. East et al. (2018) argue that not only do island development, timing, sedimentology, and modes of island-building vary at local scales, but they are also site-specific. Drawing upon the case of a Maldivian atoll, they argue that projected sea level increases and high-energy wave events could recreate the environmental conditions for atoll growth if there is a sufficient supply of sediment. The first evidence of island-building in the Pacific can be found during the latter stages of the Holocene sea level rise, with many atolls forming independently of changing sea levels (Kench et al., 2014).

4.7. Land in Tuvalu and Kiribati

Climate change is already impacting Tuvalu and Kiribati in numerous ways, from food security to water security, shifting fish stocks to coral reef bleaching and the increasing magnitude and frequency of extreme weather events. However, it is the impact of rising sea levels and the potential loss of land has captured the imagination of domestic and international audiences. Land is a crucial component of the culture of Pacifica people, with their relationship with their land and sea underpinning their identity and reinforcing their sense of place (Holliday, 2020). Although it's intuitive to focus on the role of the ocean within Pacific identity[16], land remains a central component of Pacifica identity.

Hermann (2017, pp.49) contends that "in the ontology of the i-Kiribati land is the fundament on which their very existence rests; therefore, it has unique status." Within traditional, precolonial, mythologies it was created by Nareau however this has been supplemented by Christian understandings that the land was created by God (ibid, 2017). Similarly, Tuvaluans believe that their land was given to them by God, cementing their communal ties to the land within their faith (Mortreux and Barnett, 2009). Moreover, both Tuvaluans and i-Kiribati bury their dead relatives close to their homes. In doing so, family members become intertwined within the land, thereby giving the land a spiritual dimension within the social fabric of island communities (Hermann, 2017). Beyond the level of the family, broader kinship groups, island communities and the national community are built on the premise of land with the i-Kiribati word of "aba", having a dual meaning of land/people (Hermann and Kempf, 2017). In Tuvaluan, the word "fenua" refers to both a people and a place (Farbotko and McMichael, 2019; Farbotko et al., 2016). As noted by Stratford et al. (2013, pp.71) this tie to the land has been key in the

[16] See contemporary discussion on the Blue Pacific (e.g. Fry and Tarte, 2015a; Maclellan, 2018).

construction of the nation state arguing that “fenua has been elemental in the emergence of sovereign identity and filial loyalty to the nation. On the one hand, fenua serves to uphold a persistent impression of a stable relationship between ‘people’ and ‘island’. On the other hand, limiting a fenua to the territory of the island from which it takes its name actually belies the importance of mobility and migration”. Consequently, there have been the emergency of hybrid identities, linking migrant’s home islands with their new homes for instance the “Nanfuti” identity of Nanumeans living in Funafuti. McCubbin et al. (2015) argue that Tuvaluan culture and identity is based on three interconnected pillars; land, food and community. In addition, the loss of land also has economic implications with land synonymous with wealth within Tuvaluan culture due to its role as a key source of food.

Due to this, the potential loss of land has deep political, cultural and social implications. Hermann (2017, pp.49) argues that in response to narratives of inundation “atoll inhabitants react to news of this kind by developing emotional discourses about the land and its people. Among these emotional discourses a specific one turning on worries may be found—worries Pacific Islanders have not just for themselves and their families but also for the land they inhabit.” In addition to this, traditional land ownership within Kiribati, Tuvalu, and the Pacific more broadly complicates future internal or international migration options. In the Pacific, between 65% and 99% of the land is customarily held, thus restricting the ability of those displaced by climate change to acquire new land (Constable, 2017). In Tuvalu, land tenure is governed by a familial system in which it cannot be sold but can be exchanged or leased (McCubbin et al., 2015). During the colonial period, the British sought to expand the land of the atolls to create new space for agricultural production of crops such as copra through the construction of seawalls

(Yarina and Takemoto, 2017). Land ownership remains a contemporary governance issue with customary practices in Kiribati's capital, South Tarawa, having been identified as an issue for urban development (Jones and Lea, 2007).

These issues are only compounded by high population densities and growing populations in both states. Indeed, South Tarawa has a comparable population density to Tokyo or Hong Kong (Siddle, 2014). These issues of urbanisation were compounded in the early 1990s as phosphate mining operations ceased in Nauru and hundreds of migrants returned to Kiribati and Tuvalu (Bedford and Bedford, 2010; Besnier 2016). Today, ongoing migration from the outer islands to the capitals of Funafuti and South Tarawa has led to an increasing number of migrants living on marginal land. Utilising digital terrain models to monitor shoreline change, Duvat et al. (2013) argue that rapid changes in land use in South Tarawa, specifically a large increase in the built area that is less than 20m from the shoreline, has enhanced the population's risk to coastal erosion and flooding. A recent New Zealand funded project, the Borrow Pits Remediation Project, has sought to address the poor living conditions of Tuvaluan migrants living near a series of pits dug by the US Army during the Second World War. These pits had become contaminated with polluted and stagnant water causing a serious public health hazard with the associated pollution contaminating the island's freshwater lens (McQuarrie, 1994; Yarina and Takemoto, 2017). Local land governance and the legacy of colonial history is pushing urban migrants in the capitals of both Kiribati and Tuvalu to the land that is most vulnerable to sea level change.

The absence of "spare" land and disputes over land rights is a major issue for any future cross-border community relocation in the Pacific (McAdam, 2016). Connell (2013, pp.

469-470), considering a range of papers exploring resettlement in the Pacific concludes that “land tenure, above all, posed and poses acute problems in almost every resettlement site – for people whose kinship is written on the group.” Moreover, issues around land access also pose major barriers to climate adaptation in Tuvalu due to the issue of food production and security (Beyerl et al., 2018). Consequently, land governance is a major influencing factor in the design and implementation of climate change adaptation in Tuvalu and Kiribati.

4.8. Climate Change Adaptation in the Pacific

Protection of coastal land, alongside other issues such as water security and food security, has been at the centre of climate change adaptation in both states. Given their statuses, as Least Developed Countries (LDC), this adaptation has rested on their ability to leverage climate finance for project implementation. Climate finance according to the UNFCCC (2020a) refers to “local, national or transnational financing – drawn from public, private and alternative sources of financing – that seeks to support mitigation and adaptation actions that will address climate change”. Access to climate finance is facilitated through both unilateral and multilateral pathways, although international funding for climate adaptation has become increasingly institutionalised with Kiribati and Tuvalu securing finance from organisations such as the Green Climate Fund (GCF), Global Environment Facility (GCF) and the United Nations Development Program (UNDP). Issues of climate finance will become increasingly acute as the financial pressures from adapting to climate change are predicted to continue to grow throughout the 21st century. Under the IPCC RCP8.5, the median cost of coastal protection and retreat alone is estimated to

constitute 4.6% of annual GDP in Tuvalu and 4.1% of annual GDP in Kiribati by the year 2050 (Diaz, 2016).

<u>4.8.1 Adaptation Projects in Tuvalu</u>

In Tuvalu, climate change adaptation has been channelled through their National Adaptation Programmes of Action (NAPA) facilitated by the UNDP for LDCs with most of the programs focusing on coastal zone management, agriculture and adaptation (UNDP, 2020). However, McCubbin et al. (2015) argue that vulnerability to climate change in Funafuti is exacerbated by non-climatic factors such as overcrowding, urbanisation, limited economic opportunities, changing land use, and shifting cultural norms.

Published in 2007, the NAPA seeks to communicate Tuvalu's priority activities to stakeholders covering seven projects costing a total of US$ 8.7 million funded by the UNDP and the GEF (Department of Environment, 2007). Under NAPA1, a 3m tall, 500m long seawall was built on the island of Nukufetau through the UNDP with financing from the GEF and the LDCF (Yarina and Takemoto, 2017). There has been criticism of the role of international consultants within adaptation, exemplified through this project with an international consultant travelling from Funafuti to analyse the site in just a few hours (Yarina and Takemoto, 2017). Following tropical Cyclone Pam, which hit Tuvalu in 2015, there has been a growing sentiment that has placed an increased focus on hard engineering protective measures. Concerns around coastal erosion have led to what Yarina and Takemoto (2017) call a seawall mindset, seeking to fix the atoll's edge in order to block the intrusion of the sea. Completed in 2016, the Queen Elizabeth Park in Funafuti was framed as a beach nourishment project. However, the project was poorly planned and within a year the park was already described as highly eroded and mitigation efforts

were requested (Yarina and Takemoto, 2017). Subsequently, the park was reinforced prior to the 2019 Pacific Islands Forum with 5000 tonnes of rock purchased from Nauru to reduce erosion (RNZ, 2017).

Approved in 2016, the Tuvaluan Coastal Adaptation Project (TCAP) is the zenith of this hard engineering sentiment. According to the Green Climate Fund (2020b), the seven-year project "will build resilience in three of Tuvalu's nine inhabited islands, managing coastal inundation risks. 2,780m of high-value vulnerable coastline will be protected, reducing the impact of increasingly intensive wave action on key infrastructure. The investment will build upon existing initiatives, using a range of measures for coastal protection including eco-system initiatives, beach nourishment, concrete and rock revetments and sea walls." Moreover, the project represents a significant logistical, financial and political undertaking with $36 million of financing from the UNDP and co-financing from the Tuvaluan Government worth US$2.9 million (TCAP, 2020b). To date, hard engineering projects have focused on coastal protection and land reclamation. Tentative discussions have begun on more ambitious hard engineering projects, such as the construction of an artificial island called Falesuite Ecological Island in Funafuti, to provide a refugee for 5000 Tuvaluans (Tuvalu Overview, 2014). To date, there is no timescale for the implementation of such a project. Within this thesis, I discuss the geopolitics of these projects in Chapter 6.

4.8.2 Adaptation Projects in Kiribati

Climate change adaptation in Kiribati has been characterised by a few key projects. The Kiribati Adaptation Program (KAP) ran from 2003 to 2016 and aimed to reduce Kiribati's vulnerability to climate change, climate variability, and sea level rise (Government of

Kiribati, 2020). Phase I (2003-2005) consisted of preparation and consultation, Phase II (2006-2011) was a pilot implementation, and Phase III (2012-2016) was about the expansion of adaptation (ibid). KAP II consisted of the construction of 500m of sea walls along the main road in South Tarawa, soft engineering such as the planting of over 37,000 mangrove seedlings and improvements to water management (World Bank, 2014). This project was subsequently expanded in Phase III to include North and South Tarawa as well as the outer islands and was financed via significant international support including the World Bank, the Australia Government, the Global Environment Facility (GEF), the Least Developed Country Fund (LDCF), the Japanese Government, and the Global Facility for Disaster Reduction and Recovery (World Bank, 2011; Government of Kiribati, 2020). Although arguably one of the most intense and sustained efforts to facilitate climate change adaptation in the Pacific, and potentially all developing countries, KAP is rarely mentioned within Kiribati's speeches to the UN (Barnett, 2017). Several scholars have been critical of KAP (Storey and Hunter, 2010; Barnett, 2017) with Donner (2015) highlighting that after eight years of consultation, training, policy development and priority identification the main achievement of the project seems to be the completion of seawalls. However, within a few months, the seawalls had been damaged with adjacent beach erosion threatening South Tarawa's freshwater infrastructure with criticism leveraged against the contractors for the design, the World Bank and donors for inflexible procedures and the i-Kiribati Government for not considering the adverse effects of seawalls. Webber (2013, pp. 2730) argues that "the KAP, and other projects, do not only transform that which they touch, as specified by their terms of reference or project goals, but also have material, generative effects. In this instance, the requirement that vulnerability be acted-out affects the very nature of vulnerability in Kiribati, potentially

redirecting finances from traditional 'development' projects and monopolizing limited government capacities". To date, the Green Climate Fund (GCF) has approved only one project in Kiribati in 2018 at a cost of U$58.1 million. Entitled the South Tarawa Water Supply Project, the initiative is designed to reduce the climate vulnerability of South Tarawa's through focusing on increasing water security and construction a desalination planet alongside a photovoltaic system to provide low emission power (Green Climate Fund, 2020a).

Emerging in the early 2010s under Tong's leadership, Migration with Dignity was a pre-emptive resettlement scheme that sought to posit migration as an adaptive strategy to climate change. A nation-wide scheme, Migration with Dignity was designed to forge opportunities for i-Kiribati to migrate abroad, creating expatriate communities to receive future migrants and send remittances back (McNamara, 2015). Migration with Dignity focused on facilitating access to educational opportunities, both vocational and technology, through initiatives and institutions such as the AusAID teacher training program, the Kiribati Institute of Technology, Australia Pacific Technical College, the Kiribati-Australia Nurse Initiative and schemes sponsored by Cuba (Maclellan, 2012). Research has indicated that while the majority of i-Kiribati would consider migration due to climate change a small minority were strongly opposed to leaving (Allgood and McNamara, 2017). Under Maamau, the focus has shifted to long-term economic development through the twenty-year development plan entitled Kiribati Vision 20 (KV20). Within the KV20, the Temaiku has been identified as a major development and adaptation plan in which 300 hectares of land will be reclaimed from the South Tarawa Lagoon to house 35,000 people (KV20, 2016). There has been speculation around the possibility of constructing artificial islands in South Tarawa within the shallow lagoon,

however, this remains prohibitively expensive with one proposal estimating that the cost of rehousing 51,000 i-Kiribati with the necessary infrastructure would be £19.2 billion (Lister and Muk-Pavic, 2015). Although not formally being pursued by the Government of Kiribati, these speculative techno-futures have caught the attention of the international press propagating headlines like “Sinking Islands, Floating Nation” (Rytz, 2018).

4.9. Conclusion

As highlighted in this chapter, there are notable similarities and differences within Tuvalu and Kiribati’s history and physical geography which have shaped how climate change has been represented, known and contested within both states. As such, this thesis contends that it is these similarities and differences which justify the focus on both states to understand the multiple geopolitics of climate change in small island states. Although both states have been constructed as “sinking islands”, decision-makers within Tuvalu and Kiribati have responded differently to these imaginaries. Tuvaluan politicians have consistently reinforced how climate change poses an existential threat to their state, whereas in Kiribati since Maamau took office in 2016, there has been a significant shift within their diplomacy to viewing climate change as a barrier to development as opposed to a risk to statehood.

In Chapter 5, I explore how different vertical geopolitics have been invoked within atoll states examining how Kiribati’s shifting domestic politics have altered representations of climate change. Whereas in Tuvalu, recent geomorphological research (Kench et al., 2015) have invoked a different spatial imaginary of “growing islands” with contestations over the relationship between science and politics in the production of climate knowledge. In Chapter 6, I examine how these geopolitical imaginaries shape climate

adaptation. Although both states are pursuing similar large-scale adaption projects, they are underpinned by different framings. Through the KV20, Kiribati has viewed climate change as a barrier to development thus leading to particular adaptation priorities. In contrast, development in Tuvalu is viewed as a means to fund adaptation, prioritising climate over development. Finally, in Chapter 7, I consider the climate diplomacy of Tuvalu and Kiribati. Since 2016, Kiribati has become less prominent within climate diplomacy – although its contestation of the representational legacy of the previous administration offers insights into how the geopolitics of climate change are shaped. In contrast, Tuvalu has continued to maximise its international presence on climate change with its hosting of the 2019 PIF offering an ideal opportunity to unpack the diplomatic practices of small island states.

In addition to contributing to broader debates within human geography on climate geopolitics, this thesis also addresses a gap within literature on climate change in Tuvalu and Kiribati. Literature on Tuvalu has focused on the considerable resistance to migration (Farbotko, 2010b; Farbotko 2019; Mortreux and Barnett, 2009; Noy, 2017) without exploring how large-scale adaptation projects are being used to contest these migratory futures. One notable exception (Yarina and Takemoto, 2017) explores the role of sea walls in containing the rising sea levels. However, in recent years adaptation efforts in Tuvalu have shifted toward land reclamation and artificial islands. Through this research, I address the dearth of literature considering Tuvalu's expansive adaption project and their associated temporalities and spatialities. As explored in this chapter, there is considerable debate over Tuvalu's geomorphological future within the natural sciences (e.g. Kench et al., 2015), however this controversy, and the implications for Tuvalu, have not been examined within geography or the socials sciences more broadly.

In the context of Kiribati, Migration with Dignity has been critiqued by several scholars (Weber 2016; McNamara, 2015; Dreher and Voyer, 2014), however far less research has been conducted on the subsequent rejection of migration-as-adaptation following Maamau's election in 2016 and the shift towards development. Although Mallin (2018) discusses this, his fieldwork was conducted in 2016 prior to the publication of the KV20 and announcement of the Temaiku Project, thus only capturing the beginning of this shift. Through its consideration of these contemporary developments, this thesis contributes to the literature on Kiribati through an examination of the different forms of knowledge are mobilised in imagining particular climate futures. Although scholarship has highlighted the relationship between land and climate change within i-Kiribati identities (Hermann and Kempf, 2017), this has not been expanded to consider adaptation projects.

As outlined earlier in this chapter, research on climate diplomacy in the Pacific tends to focus on regional approaches, with Tuvaluan and i-Kiribati diplomacy typically understood in relation to wider groupings such as the PIF (Fry and Tarte, 2015a). In the few pieces of research that consider the individual climate diplomacy of small island states like Tuvalu (e.g. Jaschik, 2014) the focus tends to be on particular spaces such as the UN Security council and prioritises the transcripts of speeches and meetings. Through its focus on the use of ethnographic techniques and in-depth interviews, this thesis focuses on the individual diplomatic strategies used by Tuvalu and Kiribati. Although Tuvalu and Kiribati have their own distinct approaches to adaptation and diplomacy, in recent decades both states have become frequently grouped together and ubiquitously known under the narrative of "sinking islands".

Chapter 5. The Geopolitics of Sinking: Competing Ways of Knowing Climate Change in Atolls

5.1. Sea Level Rise and Small Island States

Atolls nations such as Tuvalu, Kiribati, the Marshall Islands and the Maldives, have been reimagined as ‘sinking islands’ in response to contemporary and anticipated future sea level rise. Within international media, environmental NGOs press-releases and documentaries, titles such as the Guardian article “’One day we’ll disappear’: Tuvalu’s sinking islands” (Ainge Roy, 2019), and the BBC article “Kiribati island: Sinking into the sea?” (Siddle, 2013), have propagated representations of sinking within the consciousness of international publics. Discourses of sinking have also been reproduced by intergovernmental organisations such as the UN with the United Nations Environment Programme (UNEP) featuring stories such as the i-Kiribati campaigner Eritai Kateibwi, winner of the UN Champion of the Earth Award 2017, through headlines such as “Working on saving a sinking island” (UNEP, 2019). Speculation over the potential inundation of these island states has raised questions over their geopolitical future and how these environmental changes may reshape the relationship between territory, sovereignty and statehood.

Whilst the future of both Tuvalu and Kiribati has been heavily disputed within political discourses, over the past decade, Tuvalu has also become a particularly contested site within the scientific literature surrounding atoll geomorphology and sea level rise. Although projections of sea level rise have raised concerns over the future habitability, and even existence, of atolls, some recent literature in geomorphology has suggested that atolls may be more resilient to sea level rise than previously thought, with remotely

sensed data suggesting the islands of Tuvalu are expanding in surface area as opposed to contracting as commonly depicted (Webb and Kench, 2010; Kench et al., 2018). Mobilised by climate-sceptic politicians and media outlets in both Australia and the United States to dispute the legitimacy of climate science, this research has been used to undermine climate adaptation and mitigation in the Pacific. As aforementioned in Chapter 1, the publication of academic papers (see Webb and Kench, 2010; McLean and Kench, 2015; Kench et al., 2018) has led to fierce rebuttals from Tuvaluan politicians and diplomats.

Within this chapter I will examine how the geopolitics underpinning these narratives of "sinking" have been understood and contested in the context of Kiribati and Tuvalu. "Sinking islands" has served as a simplifying metaphor which has prioritised sea level rise over other socio-economic and environmental issues faced by atoll states. Drawing upon elite interviews in Fiji, Tuvalu and at COP24 in Poland as well as secondary sources including newspaper articles and scientific papers, I argue that the verticality of the "sinking" narrative constructs a threat of such a magnitude that it has undermined the agency of political actors from small island states and foreclosed potential alternative climate futures. By downplaying the possibility of significant global mitigation on climate change, and rendering the inundation of atoll states inevitable, narratives of sinking have implications for the geopolitics of atoll states. After discussing this broader context, attention will focus on Tuvalu, examining how the contestation of Tuvalu's geomorphological future offers an insight into how scientific knowledge is co-opted, contested and propagated within climate geopolitics. Forms of knowledge production in Tuvalu, including the use of drones, illustrate how some types of knowledge, like scientific knowledge, are privileged in the construction of imaginative geographies of climate change over traditional knowledge. By considering how representations of the

vertical and scientific knowledge have been enrolled within climate geopolitics, I will argue that the legitimacy of knowledge plays a key role within climate geopolitics. Climate sceptics have invoked scientific publications and knowledge, often misinterpreting the conclusions of such research, to dispute small island states' claims to moral and scientific authority in climate diplomacy. I consider how new forms of monitoring, such as through drone surveillance, are creating new possibilities for 'knowing' climate change to challenge these discourses.

5.2. Rising Seas and Sinking Islands: The Vertical Geopolitics of Climate Change

Within the social sciences, including geography, international relations and law, several scholars have explored how narratives of "sinking islands" have been mobilised to understand and represent atoll states. The notion of vanishing islands raises legal questions around sovereignty, the UN Convention on the Law of the Sea, and Exclusive Economic Zones (Yamamoto and Esteban, 2010). There will be significant legal implications if islands are inundated as it will shift the baselines which influence the outer limit of maritime zones with a potential loss of jurisdiction over valuable resources in the maritime space (Sefrioui, 2017). As a result, apparently settled maritime boundaries may come the fore of discussions with fresh arguments over the construction of equidistance lines; states rarely concede sovereignty over territory without resistance (Warner and Schofield, 2012). For some island states, the entirety of their territory is threatened by inundation, thus prompting discussion around their future statehood and sovereignty (Odalen, 2014).

Constructing atoll states as "sinking islands" within global imaginaries on climate change is not a politically neutral act. Within human geography, Carol Farbotko (2005; 2010b) has

argued that international media outlets and environmentalists have transformed Tuvalu's islands and Tuvaluan bodies into sites through which climate science data can be concretised. A consequence of this is that alternative constructions of Tuvaluan identity are silenced. Atoll islands have become props for discussions around climate migration and mobility (Farbotko et al., 2016), with Tuvalu serving as a prop for the climate change crisis narrative through which the Western crisis of nature can be presented (Farbotko and Lazrus, 2012). A particular notion of verticality underpins these alarmist representations and understandings of sea level rise and atoll nations. Thus, atoll nations are ideal spaces to explore the intersection of vertical geopolitics with ocean geographies and climate change. Their dynamic geomorphology of ever-shifting sandscapes produces certain temporalities (Kothari and Arnall, 2019) with the interaction between sand and rising-sea levels creating particular geopolitical island imaginaries.

These geopolitical imaginaries are evident in international understandings of Tuvalu and Kiribati. The representation of atolls as "sinking islands" employs the verticality of water to understand sea level rise in a particular manner that shifts the focus away from anthropogenic eustatic sea level rise. Rather than being conceived as an abstract deterritorialised global phenomenon, the environmental changes in the ocean are mapped onto, and understood through, the topography of individual atoll islands. Narratives of "sinking" reterritorialize sea level rise as a particular issue that is affecting atoll nations, as a result, islands are rendered responsible for adapting to a shifting coastline. Moreover, by situating sea level rise within an isolated locality of remote, "sinking" islands creates a spatial disconnect, deterritorialising the link between cause and consequence of anthropogenic climate change and associated sea level rise. Thus, this narrative reduces the responsibility of major emitters to address climate change in

order to reduce the impacts for atoll states. Maatia is part of the Tuvaluan Climate Action Network (TUCAN) a Tuvaluan based organisation of NGOs that coordinates and implements advocacy and action on climate change. He attended COP24 in Katowice representing TUCAN as part of the Tuvaluan delegation. He argued:

> The matter of fact is that the sea is actually rising. Sooner or later, Tuvalu will be underwater… we don't want to be called sinking islands. It is something that we did not cause, our contribution is next to nothing (Interview, Maatia, 06/12/2018).

Here, Maatia does not contest Tuvalu's potential political future as an underwater state, in fact, it is rendered inevitable. However, Maatia's argument emphasises the resistance of the Tuvaluan Government towards the narrative of Tuvalu as a sinking island. Sinking has connotations of responsibility which are divorced from the reality of Tuvalu's minimal contribution to anthropogenic climate change and subsequent sea level rise. Consequently, narratives of sinking undermine the will of the Tuvaluans to shape their own future and their climate diplomacy. Steinberg and Peters (2015) argue that territory "is formed and reformed by the elements that add to the assemblage (reterritorialising it) and leave the assemblage (deterritorialising it)" (pp. 255). Alongside the aforementioned spatiality of sea level rise is a particular temporality which renders the inundation of atolls by seawater inevitable. Consequently, "sinking island" narratives create a finite future for atoll states by removing land from the assemblage of the future state, thereby undermining contemporary efforts by the governments of small island states to plan, secure funding for, and implement adaptation for climate change. Therefore, "Tuvalu suffers from a fetishized climate-changed image: its visibility on a global stage comes almost exclusively from media portrayals as 'sinking islands;' nations 'in danger of

disappearing' entirely. This narrative of catastrophe… may shape the toolkit of perceived available strategies" (Yarina and Takemoto, 2017, p483). These strategies are considered in depth in Chapter 6.

Despite this resistance to external narratives, it is not only international media outlets, organisations and activists who have played a role in the construction of atolls as sinking islands; this narrative has also been promoted and utilised by some political actors within the Pacific. Climate diplomacy of atoll states has co-opted external representations of their states as "sinking" within their own foreign policy approaches and strategies. In August 2019, Tuvalu, as chair of the Pacific Island Forum, held the annual Pacific Island Forum Summit – the largest diplomatic gathering in Tuvalu's history. Earlier in 2019, Tuvalu had been visited by the UN Secretary-General, António Guterres, to highlight the impacts of climate change. During his visit, Guterres made several comments on the plight of "sinking" islands. Figure 2 shows a billboard which was erected for the Pacific Island Forum Summit in 2019 by the Tuvaluan Government.

Figure 2: A billboard erected by the Funafuti runway for the 2019 Pacific Island Forum Summit (Author, 2019)

Guterres' words legitimise the imaginary of atolls sinking by equating the suffering of atoll populations with the global population, therefore reinforcing the narrative of Tuvalu at the forefront of global climate change. Yarina and Takemato (2017, pp.480) argue that "rather than contesting this 'fetishization,' compliance is desirable for all parties as it can secure further funding. Furthermore, 'saving' a 'sinking' island nation brings additional prestige". Donors can illustrate the perceived effectiveness of their aid. Tuvalu's climate diplomacy is legitimised by the words, and presence, of such a significant figure within international diplomacy. Situated by the international runway, the billboard was visible for departing politicians, diplomats and journalists, thus blurring the distinction between public and formal diplomacy. As well as providing a clear visual resource for journalists to

photograph and report upon, the billboard would have been the departing image that visiting politicians and diplomats had upon boarding their flights after the Forum.

The narrative of "sinking islands" has been mobilised in other atoll states beyond Tuvalu. Anote Tong, whilst leader of Kiribati, utilised the narrative of "sinking islands" within Kiribati's climate diplomacy. Maevarau, a senior diplomat from Kiribati at COP24 in Katowice, described how, "Tong's administration viewed the sinking narrative as a means to enhance attention and increase attention and explore advocacy to get the attention of people" (Interview, Maevarau, 06/12/2018). This perspective illustrates how Tong, whilst in government between 2003 and 2016, mobilised the image of Kiribati as a sinking nation to raise the international profile of Kiribati in relation to climate change. Graham (2017) notes that within realist understandings of international relations "small states are either discarded as irrelevant, unimportant or weak; held in high regard as potential movers and shakers in especially smart or niche diplomacy areas; powerful in blocs; or as a non-classification" (pp. 133). Thus, the propagation of simplistic, but powerful and emotive, narratives of Kiribati as a sinking island can be seen as a strategy to establish Kiribati as one of the states most vulnerable to anthropogenic climate change sea level rise and a key player in climate diplomacy.

Mallin (2018), argues that "in light of what an i-Kiribati historian coined a 'sinking nation paradigm', the Tong Government's climate strategy regarded in-situ adaptation as a transitory solution, whereas the key policy became the pre-emptive "migration with dignity" approach that vowed to make the population economically versatile and sought after for eventual resettlement to other countries" (pp. 247). Although heavily contested, diplomats representing Western states and Pacific regional organisations have

highlighted how the Tong administration's utilisation of sinking as a motif did shine a light on the impacts of climate change for atoll states more broadly. Mark, a European program officer working on climate change projects for one of the regional organisation based in the Pacific, argued that:

> I think it is really important for the vulnerability of these countries to be understood on the international stage. Sinking country, it helps to explain a big part of the long-term climate change threat which is rising sea level" (Interview, Mark, 02/07/2018).

Given the complex, multifaceted-nature and sheer scale of global climate change, sinking islands offer a simplistic image and message that seeks to encapsulate the severity of risks to atoll states from anthropogenic climate change and sea level rise. Sinking places the focus on the "long-term climate change threat", which in the context of small island states is rising sea levels, since "beyond 2100, sea level will continue to rise for centuries and will remain elevated for thousands of years" (IPCC 2019c, p4-10). The apparent absolutism of sinking reinforces the long-term impacts of climate change for atoll nations.

Tong has continued to promote this imaginary since leaving office in 2016 through various media projects and lobbying. For instance, Tong co-authored a piece in the *Washington Post* in 2018 entitled "Our island is disappearing but the president refuses to act" (Tong and Rytz, 2018) and starred in a documentary entitled "Anote's Ark" in 2018 which asked, "What if your country was swallowed by the sea?". In the *Washington Post*, Tong provocatively states that "As for Kiribati? It is already too late. But what the international community could do is assure the islanders that they will be able to migrate with dignity. It is the least they could do". Through such statements, Tong has closed

down alternative political futures, seeing inundation as inevitable and the displacement of the i-Kiribati as unavoidable. However, Tong's approach has been dismissed by the new administration of Kiribati. Maevarau, a senior diplomat from Kiribati at COP24 in Katowice, when asked about Tong's framing of climate change, replied, "it is a political stunt to try and get political commitment to an issue that they feel will make them disappear" (Interview, 06/12/2018). As emphasised by Maevarau's use of the phrase "political stunt", Tong's approach has been viewed as focusing more on gaining international attention rather than a strategy to bring about meaningful action. This shift in the stance of the i-Kiribati Government was epitomised by an interaction at the Climate Change Sautalaga in Funafuti hosted by the Tuvaluan government on the 11th of August 2019. Dr Tedros Adhanom Ghebreyesus, the Director-General of the World Health Organisation (WHO), stated during the opening remarks of his address that:

> Within our century, the nation of Kiribati will be underwater… This is not a theoretical danger. It's an everyday reality. You are literally fighting to keep your heads above water (Participant Observation, 11/08/2019).

The Director-General reproduces hegemonic understandings of Kiribati as facing inevitable inundation from climate change, replicating the combative narrative of "fighting" climate change. This led to a sharp rebuttal from the current president of Kiribati, Taneti Maamau, during the question and answer session which followed. Maamau questioned the presumption that his islands were sinking and asked for concrete evidence that Kiribati was sinking. He went on to say that whilst previously Kiribati had been portrayed as sinking within the next 50 years, this may have been a "misunderstanding" as there had been policy changes. In doing so, Maamau sought to

contest the imaginary of sinking propagated by his predecessor Tong. Maamau went on to say that Kiribati was building resilience and that this was more optimistic and providing hope to people rather than saying to people that Kiribati was sinking, which he described as “not very helpful” (Participant Observation, 11/08/2019). Notably, the Director-General did not respond to Maamau’s claim, instead Bill Hare, the CEO of Climate Analytics, gave a short reply citing recent studies on sea level rise and the potential impacts of overtopping. In doing so, the role of the climate scientist as a source of authority was privileged within the exchange.

Unlike Tong’s administration, Maamau has sought to construct a different form of vertical geopolitics, one in which Kiribati is not rendered a passive “sinking island” but a state that is actively building resilience to climate change. Resilience suggests a promise of living with, and perhaps, even benefiting from, the changing environmental conditions of atoll nations (Grove and Chandler, 2017). This invocation of resilience, and its divergence from Western understandings, is discussed further in Chapter 6. What is important to stress here is that this focus draws attention to the longevity of the transformation of atoll environments due to climate change, the simplicity of the “sinking islands” narrative neglects the much broader socio-economic consequences of the environmental transformation that climate change is already bringing to atoll states. By focusing on sea level rise, “sinking narratives” has closed down space for discussion and awareness of other impacts from climate change for atolls. Mark, a European working as a program officer for climate change projects at a regional organisation based in the Pacific, argued that:

> The problem with sinking nation, is that it kind of assumes that the sea level rise is the main thing, when the actually tipping point stresses are a broader range of things to do with temperature: changes to the agricultural calendar; heat stress; water issues. So, sinking nation is just problematic as it doesn't encompass enough of the risk, it is just a bit narrow in its interpretation of the issue (Interview, Mark, 02/07/2018)

Inherent within the narrative of "sinking islands" is the proposition that sea level is the most important issue that atoll states face from climate change. "Sinking" prioritises the impacts of rising sea levels over other impacts of anthropogenic climate change. Whilst atoll islands do face the possibility of inundation in the future if anthropogenic emissions continue unabated, this focus on a very particular future scenario can distract from contemporary impacts of climate change. As highlighted by Mark, a broad array of issues around food security, water security and health are more acute in the short term for the socio-economic conditions of islanders. Climate-related environmental change provides Pacifica people with a diverse set of challenges despite the common perception of the primary threat being that of sea level rise (Beyerl et al., 2018). In relation to Kiribati, Storey and Hunter (2010) argue that whilst climate change and sea level rise are significant challenges in order to secure the future of small island states, greater consideration also needs to be given to immediate threats of urbanization and pollution. This sentiment of over-simplification is echoed by George, a senior diplomat for Tuvalu whose remit is to focus on climate change:

> I mean, the terminology is wrong to start off with. I mean, we are not sinking, we are likely to be inundated rather than sinking… if you look at the trends over a

> long period of time, of all the data we have, then there has been a rise in sea level, but it is certainly not threatening at this stage. So, I have been quite careful about using that terminology [sinking] because I think that the biggest threat to Tuvalu is this whole storm surge/overtopping issue (Interview, George, 07/08/2019).

While atolls on geological time scales do subside, describing atolls as "sinking islands" in reference to contemporary sea level rise does not accurately encapsulate the processes. Indeed, under certain conditions, coral growth can sufficiently track moderate rates of sea level rise although it is uncertain whether reefs will be able to sustain this under future climate change (Perry et al., 2018). By focusing on distant threats of inundation, "sinking" prioritises an alarmist, extreme and existential threat to the statehood of Tuvalu as opposed to shorter-term issues related to oceanic change. Recent research within the physical sciences reflects George's assertion that the habitability of Tuvalu may come into question long before inundation. Storlazzi et al. (2018) argue that studies assessing the habitability of atoll islands neglect the impact of wave-driven overwash, or overtopping, in their assessments on freshwater availability and most atoll islands will receive annual wave-driven overwash by the middle of the 21st century. Their paper argues that atoll islands will become uninhabitable due to frequent infrastructure damage and the loss of access to fresh water. In a similar vein, Dickinson argues that rising sea levels will affect habitability once ambient high-tide levels rise above the mid-Holocene low-tide level, thus "atoll islets will become subject to enhanced erosion long before sea level overtops the surfaces of the islets", and therefore "adaptation to changing conditions may eventually become infeasible on many atolls" (2009, pp. 9). Nevertheless, it is worth highlighting that a minority of policymakers still view inundation as the most pressing

threat. Kilipaki, the Director of the Department of the Environment in Tuvalu, argued that:

> I think the greatest threat is going underwater. That's it. Being completely inundated, that is the greatest threat… we don't want to go underwater. Once Tuvalu goes underwater, there is no life here, we can't survive when it goes underwater… there is a possibility we will be inundated completely (Interview, Kilipaki, 20/08/2019)

In attributing Tuvalu's "greatest threat" as going underwater, Kilipaki focuses on the inability of the Tuvaluan population to sustain life in the islands following inundation. Repetition of "underwater" emphasis the totality of the inundation of Tuvalu, creating a particular verticality in which the land of Tuvalu beneath the waves is unable to sustain the nation. Other policymakers place a greater emphasises on the gradual degradation of environmental conditions prior to inundation. Mark stated that:

> I don't see Kiribati as disappearing under the waves overnight, but I think before you get to the stage of losing so much land that it is dramatically impacting on the number of people living there - you'll have water issues. I think water issues and social issues will occur before the very Hollywood disappearing under the waves sort of interpretation (Interview, Mark, 02/07/2018)

Mark reinforces the view of other diplomats, scientists and NGO workers who believe that broader issues of climate change will have greater impacts in the immediate futures for Kiribati – in particular issues around water security. By referring to Hollywood, he eludes to the apocalyptic visions of inundation and flooding through which Kiribati is understood within international communities as on the frontline of climate change. Mark

argues he does not "see Kiribati as disappearing under the waves overnight", illustrating how sinking is associated with a particular temporality, of imminent, immediate inundation. By bringing inundation into the immediate future, sinking narratives are seen to be closing down other potential climate futures for atoll states. These questions of statehood and identity within the imagined futures of atoll nations are underpinned by particular claims to scientific knowledge.

5.3. Geomorphology and Geopolitics: Tuvalu's Growing Atolls?

Within climate diplomacy, the PSIDS have used scientific expertise to argue for the inclusion of climate change within a range of fora such as the United Nations Security Council (Bruner, 2017). As argued by Jaschik (2014), Tuvalu has sought to build on the credibility of science to frame its message of urgency and transform itself into a symbol in the fight against climate change. Whilst opening the Climate Change Sautalaga[17], a traditional Polynesian meeting, in Funafuti on the 12th August 2019, Enele Sopoaga described how this provided an opportunity for the leaders of the PSIDS to "hear the latest science and react properly" and be exposed to the empirical evidence from around the Pacific (Participant Observation, 12/08/2019). Lono, the Permanent Secretary of the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), reinforced this notion when describing the rationale of the Sautalaga, stating, "we would like to inform leaders, as part of the Forum week, for them to revisit what they think about climate change" (Interview, Lono, 29/08/2019). During the Sautalga, scientific experts from the WHO, the Carnegie Institute, and Climate Analytics gave presentations

[17] Although the Sautalaga was not formally part of the PIF, Tuvalu hosted the event to highlight the prominence of climate change within negotiations. Sautalaga's focus on facilitating open and inclusive dialogue and the Tuvaluan government sought to harmonise the diplomatic positions of the PSIDS prior to negotiations later in the week with Australia.

to heads of state and ministers from the PSIDS. Following the presentations, there was an opportunity for the leaders to ask the scientists questions. Overwhelmingly, the scientific experts were white, European men – with only a few Pacific voices represented towards the end of the event – thereby reinforcing a particular hierarchy of knowledge transfer between Western science and politicians in the Global South. Through the structure of the event, and through Sopoaga's introduction, a relationship was constructed between science, politics and diplomacy through which scientists produce and then communicate scientific knowledge which is then is received by politicians to "react properly" to. Sopoaga's reference to "react properly" implies there is a normative correct course of action in which Pacific politicians should respond to the authority of science. If politicians do not subscribe to this interpretation of science then, to quote Lono, they should "revisit what they think about climate change" following exposure to the latest science.

Within the imaginary of atolls as sinking islands, science has been utilised as a form of knowledge to lend credibility and legitimacy to the possibility of certain climate futures for atolls – including inundation. Derek Gregory (2004, pp.17) argues that "we might think of imaginative geographies as fabrications, a word that usefully combines ''something fictionalized'' and ''something made real,'' because they are imaginations given substance". As aforementioned, there is significant scientific inaccuracy in the description of atolls as "sinking" in relation to contemporary anthropogenic eustatic sea level rise. Nevertheless, scientific forms of knowledge such as climate change models, predictions of sea level rise and observational data are all deployed by Western climate activists and media outlets to lend credibility to the fabrication of the inevitable inundation of atoll nations.

Since 2010, the construction of Tuvalu as a "sinking" island has been challenged by research in coastal geomorphology conducted at the University of Auckland through a series of publications (Webb and Kench, 2010; Mclean and Kench, 2015; Kench et al., 2015; Kench et al., 2018). In a study focusing on 27 atoll islands in the central Pacific over a 19 to 61-year period, Webb and Kench (2010) found that 86% of islands were stable, thereby contradicting widespread perceptions that all reef islands were eroding due to sea level rise. Analysing 6 time slices of the shoreline position of 29 islands of Funafuti Atoll, Kench et al., (2015) argue that no islands have been lost to sea level rise, the majority have increased in area, and there has been a 7.3% increase in net island area from 1897 to 2013. Mclean and Kench (2015, pp. 458) claim that "it is likely that virtually all of the present atoll islands will be there at the end of the 21st century if present trends continue. They are unlikely to disappear or sink beneath a rising water level as has been asserted during the last decade or so". Contemporary geomorphological research has suggested a dynamism of atoll morphology which means the atoll islands of Tuvalu may persist despite rising sea levels. Thus necessitating a shift in focus in environmental governance. Kench et al (2015) argue that "the challenge for low-lying atoll nations is to develop flexible adaptation strategies that recognize the likely persistence of islands over the next century, recognizing the different modes of island change, and accommodate the ongoing dynamism of island margins" (pp. 518).

As of October 2020, Webb and Kench's initial 2010 paper has been cited 377 times, illustrating the resonance and reach of this research. Nash argues that "the Kench and Webb research is well-known among climatologists, and controversial not because of its own specific findings but because it can be easily taken out of context to support unwarranted conclusions" (2015, pp. 89). By unpacking the controversy of Tuvalu's

"growing islands", one can explore how particular geomorphological and geopolitical futures can become entangled in specific moments. On first consideration, this research would seem to be reassuring to the Tuvaluan Government and its people. It suggests that sea level rise does not threaten Tuvalu with inundation in the immediate future, opening up space for alternative imagined futures in which adaptation allows the population to persist beyond the short term. However, the overwhelming responses to his research from Tuvaluan diplomats, politicians and NGOs have been negative. In 2018, following the publication of *Patterns of Island Change and Persistence offer alternative adaptation pathways for atoll nations* by Kench et al. in Nature Communications, the then Prime Minister of Tuvalu, Enele Sopoaga, gave a press conference refuting the study by arguing it did not consider the habitability of land and saltwater intrusion. Sopoaga stated:

> As the leader of Tuvalu, about which most of the report has paid most of its focus, I find it totally unfortunate and perhaps untimely in that the news item was never allowed responding [sic] or verifying by Tuvalu authorities (Sopoaga cited in Movono, 2018)

Sopoaga seems to imply that a belief that the Tuvaluan state has specific rights to the production of geomorphological knowledge conducted about the Tuvaluan islands and its subsequent dissemination. Science is not an innocent description of a particular set of intellectual practices and principles; the old positivist image of benign white men in white coats has given way to one of suspicion (Castree, 2005). This scientific research has been treated with suspicion by the Tuvaluan Government because they feel it undermines Tuvalu's position as one of the most vulnerable states to climate change. Commenting upon this press conference, Jonathon, a European scientist working for a multilateral

institution which is currently implementing projects in both Tuvalu and Kiribati, described how:

> So instantly if you've put out a paper that appears to counter the rhetoric of the day, the political rhetoric of the day, then it is just - instead of engaging - it is rejected it in [sic] large brash, (*pauses).* I don't know, outbursts? Which was the case most recently with Paul Kench's paper as well, so the Tuvaluan Prime Minister was outraged by that. And in some ways, rightly so, yeah, the paper stepped in places perhaps it shouldn't have. But the science, the shoreline science, was very good and solid and I am sure it would stand up if it was tested (Interview, Jonathon, 02/07/2018)

Jonathon hereby constructs a boundary between science and (geo)political knowledge. Boundary work constructs a divide between some intellectual activities as science whereas others are "nonscience" (Gieryn, 1983, pp.782). While Sopoaga's criticism of the paper is dismissed as an "outburst" that fails to engage with the scientific research, Jonathon suggests the research has "stepped in places perhaps it shouldn't have", thereby suggesting a separate sphere of the political in which science should not taint itself. Jasanoff (1987) argues that the boundary disputes between science and policy are played out in the realm of language stating that "the lines between science, policy and the areas where the two are mixed are difficult to draw not merely because science is indeterminate, but because the efforts to make such distinctions is politically charge" (pp.224). This boundary, in the context of Tuvalu, is not only politically but also geopolitical charged – with a spatial imaginary of future statehood seen as undermined by science.

Science as a modality has been mobilised to both justify the inclusion, and exclusion, of climate change and small island states from diplomatic discussions (Bruner, 2017). Here, Tuvaluan actors have sought to exclude certain forms of “science” from the political arena that undermine their own geopolitical framing of Tuvalu’s future. Frustration focused on the conclusions of the paper, in particular comments around the urgency of the climate crisis and the potential geopolitical implications. Kench et al. (2018, pp.6) conclude that:

> …the data on island change show there is time (decades) to confront these challenges, which could engender more thoughtful support from international agencies. The pursuit of this and other alternate adaptation pathways does not negate the need to still vigorously support ongoing mitigation action to curtail future sea level impacts and climatic changes on small island nations or to undertake robust efforts to better define the constraints and thresholds of habitability (such as water resources and food supply) on atoll islands. These collective efforts provide a more optimistic set of approaches to adaptation, which support the rights of atoll people to dignified lives and autonomy for future generations and maintaining the sovereignty of atoll nations

Firstly, Kench and colleagues offer an alternative temporality to climate change in atolls thereby detracting from the urgency inherent within Tuvaluan climate diplomacy for contemporary action on climate change. Referencing more “thoughtful support” implies that current climate adaptation projects supported by international agencies are thoughtless, thus not efficient or even worthwhile. In doing so, this undermines the concerted effort of Tuvalu to gain international funding and support. Moreover, the

discussion of "maintaining the sovereignty of atoll nations" touches on a contentious issue within Tuvaluan climate geopolitics. Following Tuvalu's separation from Kiribati after the dissolution of the Gilbert and Ellice Island Colony in 1975, Tuvaluans have taken great pride in their independence as a sovereign nation. As such, questions surrounding sovereignty are seen as a matter for Tuvaluans to discuss – not foreign scientists. Nevertheless, it is worth noting that not all within Tuvalu were as exasperated by this research. Kilipaki, the Director of the Department of the Environment in Tuvalu, when asked about the findings of the research, responded:

> Our argument is not about the expansion of the land. No. The argument is to pinpoint the elevation of the land above the sea, it is not about the expansion. We can extend. We can build and build and build. But we are only two to three metres above sea level… if there is a sea level rise you always go completely underwater. That is the narrative we promote (Interview, Kilipaki, 20/08/2019)

For Kilipaki, there is not an incompatibility between the scientific findings suggesting the islands of Tuvalu are expanding and the narrative of "sinking islands" and inundation. Crucial to his argument is how the vulnerability of Tuvalu, and the potency of the threat of inundation, rests with Tuvalu's elevation as opposed to the extent of its land. Verticality, through Tuvalu's low elevation, plays a key role in the construction of Tuvalu's susceptibility to sea level rise as opposed to its lateral extent. Kilipaki continued:

> …they [the Government of Tuvalu] didn't like the way they [the researchers] framed it even though they had taken the measurements, data available, satellite data. To me personally, because I am also a scientist, my argument to them - especially the Prime Minister who was so frustrated by this news and by the paper

> coming out – my argument is do not worry about it. Because the paper talks about the expansion and the shrinking of islands, what we need to push forward is the elevation of our islands is only two to three metres above sea level (Interview, Kilipaki, 20/08/2019)

According to Gieryn (1983, pp. 782), framing describes a "way of selecting, organising, interpreting, and making sense of a complex reality so as to provide guideposts for knowing, analysing, persuading and acting… in short, this strategy serves to render 'knowable' not just problems, but also potential solutions to those problems". Here, Kilipaki attributes the hostility of the Tuvaluan Government to the research due to the "framing" as opposed to the scientific findings themselves. In contrast to Jonathon's construction of a boundary between scientific and (geo)political knowledge, Kilipaki merely attributes the opposition to a question of framing, reiterating how the expansion of the atolls does not challenge understandings of Tuvalu's key vulnerability to climate change as being to sea level rise. The response to this research illustrates how contentious research surrounding climate change and sea level rise can become if it is seen to disrupt the diplomatic efforts of states. Through disrupting imaginaries of an inundated future, research suggesting the atolls of Tuvalu are more robust in light of sea level rise than previously thought is seen as undermining the justification for large scale global action on climate change. Consequently, when science is seen to "overstep" the mark or be "framed" in an inappropriate manner, scientific knowledge can come into conflict not just with geopolitical imaginaries but also with traditional understandings and knowledge.

5.3.2 'Seeing' climate change: tensions between scientific knowledge and local knowledge

There are multiple ways of 'knowing' climate change. Much attention has been focused on the geographies of climate change knowledge and attempts to capture the difference between scientific and local, traditional or indigenous conceptualisations of climate change. For example, Mahony and Hulme (2018) have proposed an "epistemic geographies" to tease apart the spatialities of technoscientific knowledge that underpins understandings of human-induced climate change. Epistemic geographies of climate change mean paying attention to the uneven geographies of scientific authority, the spatialities of boundaries drawn between the scientific and political and the situated co-production of epistemic and normative commitments (Mahony and Hulme, 2018). This uneven geography of scientific authority can be seen in the criticisms of the previous Tuvaluan Prime Minister towards academics and journalists researching and writing about Tuvalu. During numerous speeches in 2019, including the closing of the Youth Climate Day and the opening of the Climate Change Sautalaga in Funafuti, Tuvaluan Prime Minister Enele Sopoaga criticised scientists researching through remote sensing for failing to visit Tuvalu and encouraged journalists to report on what was happening (Participant Observation, 03/08/2019; 12/08/2019). In doing so, Sopoaga implied a grounded approach, which did not explicitly critique scientific forms of knowledge but prioritised the local and the situated.

Animosity among Tuvaluan politicians and diplomats towards research considering the geomorphological responses of the atolls to climate change can be explained due to its apparent incompatibility with local views on climate change. Everyday lived experiences

for Tuvaluans, alongside traditional knowledge, can feel ignored, insignificant or unimportant when it comes into contestation with scientific knowledge produced by Western scientists. There is a perceived hierarchy of knowledge through which 'external' knowledge is prioritised. Taukelina, a senior official in the Funafuti Kaupule, described how:

> We have had the most visible impact of climate change, or what we have been *told* to believe is climate change impacts. Our islets out there, there are two islets that have been washed away by big storms in the last five years. Cyclone Winston was really bad. It hit all the islands, washed away one of our islands and took away more than half of another islet. So, if that is the impact of climate change, that's it (Interview, Taukelina, 28/08/2019).

Climate change remains an abstract distant phenomenon for many communities. It is difficult to appreciate, attribute and concretise long term shifts in climatic conditions; this is particularly true in the Pacific with significant intra-annual variation in climate and oceans due to the El Nino Southern Oscillation. Given the widespread representation of Tuvalu as a "sinking island", the disappearance of islets is a means by which climate change can be 'seen'. It concretises the models; it provides an indisputable material impact. In Funafuti, the disappearance of two islets is held as proof of sea level rise. Crucially, Taukelina states that this is "what we have been *told* to believe is climate change impacts". In doing so, Taukelina alludes to a belief that what is attributed to climate change may, in fact, be the result of other processes. Upon being asked who had told him that the disappearance of the islets was attributable to climate change, Taukelina replied:

> Well basically the government, the way they have advocated very strongly against the polluters of the atmosphere [sic]. This is spread on by programs, television programs and journalists coming over (Interview, Taukelina, 28/08/2019)

The word “told” implies a particular hierarchy through which climate change knowledge is produced, distributed and circulated, a hierarchy in which the Tuvaluan population is passive in its receipt of knowledge produced by the government on climate change. By highlighting the loss of islets as ‘evidence’ of the rising sea levels, the government has sought to communicate the severity of climate change to its population and how international actors such as journalists have sought to communicate knowledge about Tuvalu to the international community. George, a senior diplomat from Tuvalu working on issues of climate change, stated that:

> We have also had scientists from Auckland University saying Tuvalu is not sinking and that paper has been around for quite a while. I wrote a critique of that paper, there are scientific methodological problems with that paper. Even *(stresses)* if it was right, I mean the trouble is not all the islands were surveyed. Some of the ones that have disappeared the most, like Tepuka Savilivili which is next to Tepuka across the other side of Funafuti, were not measured. So that’s an islet that has pretty much disappeared and yet wasn’t included in that survey (Interview, George, 07/08/2019)

Material changes in everyday lives of Tuvaluans such as the dynamics of the atoll and disappearance of islets can feel in direct contradiction to scientific knowledge. Tensions between traditional knowledge and scientific knowledge manifest in the selection of islets for inclusion within the study. Lived everyday experiences of shifting atoll

geomorphology do not reflect the categorisation, depiction and analysis of scientific forms of knowledge. Mclean and Kench (2015, pp. 454), state that “all 32 islands mapped in 1897 are still present, including the smallest islands” which directly contradicts Tuvaluan observations and lived experiences from living, sailing and fishing around the lagoon. The exclusion of particular islets has led to conflict due to the mobility of sand within the atoll. Steinberg and Peters (2015, pp. 253) argue that “contestation has depth. The source of conflict is ever moving and impacted by the movement surrounding it (be it fish, oil, silt or water molecules themselves”. Therefore, “it is the three-dimensional extent of the sea – its immense volumes – makes observation and knowledge, and therefore geopolitical control, problematic” (ibid, pp. 254). Islands, islets and sandbanks are constantly being shaped, (re)formed and altered by ocean currents, waves and tides. Consequently, observation and knowledge about islets and sea level rise become problematic, contested and geopolitical. The disappearance of islets was not ‘seen’ within the research, which as a form of scientific knowledge has particular geopolitical purchase and legitimacy whereas the local observations of islets that have disappeared, such as Tepuka Savilivili remain ‘unseen’ by the research. George continued:

> We know that the threats are serious, and you know we know there are questionable aspects of that paper. I have read the reviews of that paper. By various scientists and they were critical of the paper, the author was asked to revise their paper based on those critiques. But the revision was minimal and some of those concerns written by reviewers remain about the methodology. There are questions about the methodology of the paper, but I guess the key message is the political aspect of it. Tuvalu is not sinking (Interview, George, 07/08/2019)

In highlighting methodological critiques of the paper, George offers a criticism that is perceived as legitimate, valid and rationale; by drawing on reviews, methodological questions and revisions to cast doubt over the paper's findings, he is appealing to standard practice within scientific research. As a senior diplomat for the Tuvaluan Government, George uses science as a particular claim to knowledge to contest the imaginary produced by the paper. Although George focuses on methodological concerns, he highlights why such papers have caused so much controversy. They challenge the hegemonic image of Tuvalu as the poster child of climate change; as the litmus test for sea level rise; as the frontline of the battle against the ongoing environmental crisis (Farbotko 2005; 2010b). Webb and Kench (2010; pp. 245) highlight this, stating that the "results of this study contradict widespread perceptions that all reef islands are eroding in response to recent sea level rise. Importantly, the results suggest that reef islands are geomorphically resilient landforms… reef islands may not disappear from atoll rims and other coral reefs in the near-future as speculated". A subsequent paper goes further, with Mclean and Kench (2015) arguing that "it is likely that virtually all of the present atoll islands will be there at the end of the 21st century if present trends continue. They are unlikely to disappear or sink beneath a rising water level as has been asserted during the last decade or so" (pp. 458). Although scholars such as Kench et al. (2018) are careful to assert that climate change remains the most severe threat facing Tuvalu, and other Pacific atolls, such papers are perceived to delegitimise the discourse of urgency which has underpinned so much of Tuvaluan climate diplomacy. Consequently, this research has been utilised by climate sceptics to discredit or downplay the risk of sea level rise, as well as climate change more broadly, both within the Pacific and elsewhere.

5.3.3 Sinking no more? 'Growing Islands' in international media

In the era of globalisation, particular spaces have become entangled in understandings and representations of climate change in the Anthropocene. Carol Farbotko (2010b), has argued that Tuvalu has become burdened with proving the indisputable "truth" of climate change. Given Tuvalu's hyper-visibility within global understandings and representations of climate change, this contemporary research on Tuvalu's islands has been mobilised by climate sceptics. In doing so, the geomorphological processes of Tuvaluan atolls have become the subject of fierce debate. Science, long mobilised to legitimise the urgency of climate change, has been increasingly used to dispute the spatial and temporal assumptions of climate discourse. Breitbart, the far-right American news website, reported that "'Sinking' Pacific Island Actually Getting Bigger Shock" (Delingpole, 2018), and the British newspaper The Telegraph stated that "Pacific Islands 'growing not shrinking' due to climate change" (Chapman, 2010). Australian newspaper the Herald Sun, a subsidiary of News Corp Australia, has been particularly strong in its co-opting of this research (Bolt, 2010; 2012; 2019). Herald Sun Journalist Andrew Bolt argued in a 2010 opinion piece:

> For years this glittering string of atolls has been shoved in your face as the poster islands of the global warming faith – this Eden we were killing with our Western sin. How often we were told it could be the first Pacific nation to be swallowed by the rising sea caused by our evil gases… but truth has counted for dangerously little in this debate, and warmists told one Tuvaluan tale after another of an endangered Polynesian paradise that grew steadily more mythical.

Clearly provocative in tone, Bolt draws upon particular images mobilised within Western environmental discourses, such as Nature as Eden, which have propagated ubiquitous

representations of small island states as spaces vulnerable to climate change (Castree, 2005). Bolt constructs a binary of us and them, with “how often we were told” enforcing a separation between the lay public and an abstract political elite. Mobilising a single ‘truth’, Bolt draws on the alliteration of “Tuvaluan tale” to reinforce a narrative of fantasy around Tuvalu’s climate future. Bolt’s argument builds on selective quoting from the Webb and Kench (2010) paper, before concluding that:

> Tuvalu is refusing to drown as warmists predict. Indeed, the only thing now drowning out there is the credibility of that grotesque green horde of hysterics, dreamers, carpetbaggers and moral grandstanders that has whipped up such baseless fears for a decade. So to those who once cried ‘Tuvalu’, we now say a cheery ‘toodaloo’ (Bolt, 2010)

Through such rhetoric and representations, Tuvalu is transformed as to an island of ridicule, a device which seeks to discredit narratives of global change based on the perceived inaccuracy of discourses surrounding Tuvalu and sea level rise. Humiliation has been mobilised in geopolitical imaginaries of Tuvalu to undermine Tuvalu’s sovereignty with Bolt drawing upon a colonial autological fetishization of Tuvalu to discredit the Tuvaluan Government’s requests for assistance (the role of humiliation within climate geopolitics is discussed further in Chapter 7). Moreover, the personification of Tuvalu and the description as a state “refusing to drown” reinforces similar assumptions of agency, and responsibility, as produced in depictions of atoll nations as “sinking” islands negating the need for Australia to accept Tuvaluans displaced by climate change. As Tuvalu has become the subject of dispute, and to some degree ridicule, this has led to political

responses from Tuvaluan diplomats and politicians. George, a senior diplomat from Tuvalu focusing on climate change, when discussing the research stated:

> It got picked up by a lot of right-wing media. In fact, it just keeps resurfacing. I saw a reference to that paper last week, the right-wing media keeps bringing it up every now and again. That is a revision of a paper that was written quite a few years ago… the then Prime Minister Koloa made some comments about it, media comments about it. It just keeps coming up. So, we just have to respond. I don't know, it is a challenge. Do you just give it more oxygen by responding to it? Or do you just let it slip away? (Interview, George, 07/08/2019)

By choosing to describe the paper as resurfacing, George demonstrates how particular objects, such as this paper, circulate within climate discourses. He suggests that the Tuvaluan Government "just have to respond", utilising political statements to refute knowledge produced about Tuvalu. He raises queries about the degree to which small atoll states can control, or alter, perceptions of international image.

Recent research on Tuvalu's coastal geomorphology has not only been taken up by international media outlets but has also been co-opted by climate-sceptic politicians in attempts to dispute or delegitimise climate change. Craig Kelly, an Australian Liberal Party MP, cited the study in a presentation mocking the alleged exaggeration of climate change – notably ignoring the study's claim that climate change remains the single biggest threat to Pacific atoll islands (Davies, 2018). Just weeks after a Pacific Island Forum Summit in Funafuti in which Australian-Tuvaluan relations came under strain, Kelly argued "it's a coral atoll [Tuvalu]. Even though you've had a slight sea level rise, a coral atoll actually

floats on the ocean" (Koziol, 2019).[18] Floating undermines the vulnerability of atolls to rising sea levels and invokes a particular mobility of atolls through which they respond to altering ocean conditions. Geomorphologically, floating does not only inaccurately describe the morphology of atolls, but it trivialises the impacts of climate change.

Different metaphors of sea level rise have implications for the multiple, competing discourses surrounding Tuvalu as a poster child of climate change. Environmentalists hold up Tuvalu as a "sinking island", the epitome of a community threatened by climate change, whilst climate sceptics have constructed Tuvalu as a "growing island" encapsulating their perceived flaws on climate narratives. Science has been used as a legitimising form of knowledge, to contest the future of the atoll. Sarewitz (2004) argues that although science is called upon within environmental controversies to resolve a dispute, the value-based position of environmental controversies can mean that it is often possible to compile supporting sets of scientifically legitimated facts. Scientific knowledge has been mobilised to construct a counter-narrative to that of Tuvalu as a "sinking island". As opposed to closing down debate over Tuvalu's climate future, science has been used by right-wing politicians and climate sceptics to open up and contest the future geomorphology of the atolls. While the islands of Tuvalu have become embroiled in this scientific controversy, there has been an emergent movement within the Tuvaluan population to try and produce grassroots "scientific knowledge" to amplify the voices of Tuvaluans.

[18] Australian-Tuvaluan relations and the role of humiliation is discussed further in Chapter 7.

5.3.4 Local Knowledge, Global Networks: Drone understandings of sea level rise

Specific scientific framings of global change have reinforced, and been reinforced by, delocalised technocratic inclinations of global climate management, thereby not allowing space for important questions about trust, uncertainty and expertise (Demeritt, 2001). A lack of domestic capacity within Tuvalu has meant that international consultants, experts and scientists have played a significant role in conducting research on climate change in Tuvalu. As Tuvaluan voices are mostly absent from scientific research conducted on climate change and sea level rise in Tuvalu, trust in climate science is a difficult to build and maintain. As previously highlighted, this is particularly acute when findings are perceived as contradicting 'local' knowledge and observations of sea level rise. Much of the research conducted occurs from afar, without Tuvaluan voices, institutions or researchers present. Illustrative of this is work profiling climate impacts in Tuvalu for international organisations. For example, currently under production by the WHO is a short film documenting the health impacts of climate change. Whilst conducting fieldwork in Tuvalu, I met a filmmaker who was contracted to produce the film, travelling to Tuvalu to speak to those whose health was impacted by climate change (Participant Observation, W/C 19/08/2019). However, the broader project, the scope and rationale of the film, was determined by an external organisation in which Tuvaluans were enrolled to "characterise" the discourse.

As aforementioned, the existing research on the geomorphology of atolls is often met with suspicion from Tuvaluan officials. Expert scientific knowledge surrounding islands and climate change is supposedly indisputable and universal, thereby leaving little space for disagreement or political dialogue. Thus, to increase the prominence of Tuvaluan

voices, the Tuvaluan Government alongside Tuvaluan NGOs are seeking to increase the capacity of Tuvaluans to produce scientific knowledge. The Tuvaluan Government is currently in the process of establishing an Atoll Research Centre affiliated with USP in Funafuti. Lono, the Permanent Secretary of the MFATTEL described how:

> This issue of the Centre of the Excellence has been aired by the Prime Minister… I think what the prime minister wants to have is a much more focused centre on atoll nations because of the impacts are [sic] much more prominent compared with the bigger islands… there needs to be a special category for atoll nations because they are different in terms of their geographical nature compared to the PSIDS of Fiji, Samoa and big islands with mountains. Us? We're flat. Like the Maldives, Tokelau, Kiribati and Marshall Islands (Interview, Lono, 29/08/2019).

Founded in 1968, USP is an intergovernmental organisation which is co-owned by 12 Pacific Island countries. Although the University is founded on regional cooperation and is multi-campus in basis, the main campus, Laucala is in Fiji and there are increasing concerns for the university's autonomy from the Fijian Government (see RNZ, 2020c; Anthony, 2020). Moreover, only Tuvalu, Kiribati, Tokelau and the Marshall Islands are atoll states among the 12 member states and have much less influence than the large members like Fiji, Vanuatu and the Solomon Islands. Here, Lono focuses on the exceptionalism of atolls due to their physical geography and vulnerability to climate, thus necessitating a specialist institute. The future Centre of Excellence is seen as a means of raising the awareness of the impacts of climate change on atolls. Moreover, this has become a key concern for the Tuvaluan Prime Minister. Lono continued:

> I think because of the colonial aspect. We rely a lot on outsiders for researchers, we want to change that… we have been relying a lot on the IPCC reports, the regional organisations and the University of the South Pacific but I think it is really important to bring that down a level, to the national level. So that, when we advocate, it is basically on verified data that we are able to base our decisions and advocacy on. So, in terms of the foreign policy and how it creates that link to us and our issues and bring it out to the international forum (Interview, Lono, 29/08/2019).

Referring to the colonial aspect, Lono alludes to the inequalities in the centres of knowledge production around climate change. Concerns around a dependency on external researchers echo other work within human geography on territory and climate change. Mahony (2014) unpacks the controversy around the erroneous inclusion within the 2009 IPCC Report that the Himalayan glaciers could have disappeared by 2035. He contends that “there is an emerging concern with the future of territory, in efforts to induce a new anticipative approach to problems of resource management and human development and in order to persuade and convince other political actors of the need to transform the state’s engagement with both domestic and international climate politics” (pp.125). Much of the scientific research produced about Tuvalu and its territorial future, which is utilised by Tuvaluan politicians and diplomats within their diplomacy, is seen as being produced by “outsiders”, whether that be the IPCC or regional organisations. Mahony argues, in relation to India’s Himalayan glaciers, predictions for their future is based on “emergent knowledge [that] has been shaped by the context of a complex and at times antagonistic relationship with the so-called ‘Western’ science of the IPCC” (pp. 126). Extending Mahony’s argument, the colonial and postcolonial territorial

arrangements and institutions of knowledge production are key in understanding this antagonistic relationship. Given Tuvalu's inclusion within the broader Gilbert and Ellice Island Colony, and subsequent political struggle for its own independence, Tuvaluans see external scientific knowledge as further reducing their agency as a sovereign territorial state. Lono highlights the importance of data-based policy and advocacy but also stresses that due to the lack of Tuvaluan input into research that there is a perceived need to "bring that down a level". Lono went on to add, "we would prefer more ownership of the issue meaning that we would like to do more research. Our own people doing the research, the data collection" (Interview, Lono, 29/08/2019).

Such a centre seeks to locate knowledge production within Tuvalu, thus allowing the Tuvaluan Government to assert a perceived greater level of control over research processes which cannot be exercised over foreign institutes such as the University of Auckland. In doing so, Lono argues this will give "ownership" over the issue thus strengthening the diplomatic arguments of Tuvaluans. Such a contention creates a particular geography of knowledge production. Mahony and Hulme (2018) argue that there are epistemic geographies, key spatialities of technoscientific knowledge, that underpin understandings of human-induced climate change. There are uneven geographies of scientific authority, with the boundary between the scientific and political being contended, with notable differences between scientific and more local, traditional or indigenous narratives (ibid, 2018). Within this uneven geography, the production of knowledge by foreign researchers about the future of Tuvalu is seen as incompatible with local understandings of climate thus necessitating intervention by the state to amplify Tuvaluan understandings.

There are also non-state initiatives seeking to increase the amount of knowledge production within Tuvalu. Given the assertion that "there is a need for studies of the scientific community that studies climate change" (Yearley, 2009, pp. 402), these initiatives offer an opportunity to understand how these scientific communities emerge. There is a network of non-state actors both within, and beyond, Tuvalu who are trying to increase the ability of Tuvaluans to 'know' climate change. Within these globally networked emergent research projects, Tuvaluans are active participants of citizen science rather than passive objects of study. One such project includes a partnership between USP, the Funafuti Kaupule, an American volunteer and an American conservation NGO. This project arose from a chance encounter between a Pacific Islander academic working in Tuvalu and an American volunteer. Roberta is a volunteer from the United States interested in environmental protection who was working with an American ocean conservation NGO. She stated:

> She [a Tuvaluan Academic] gave a talk at the Museum of Natural History [New York], it was a conference there… I basically heard the part of the project where she said she was from the Pacific. Asked her to take me as a volunteer, she said I can't pay you and I said deal. So that is how I came to Tuvalu. I didn't know that it existed up until then. Once I started learning about it, it is the perfect place. It has enough government stability you can do research; it has natural resources that are so precious you want to do research (Interview, Roberta, 29/07/2019)

Tuvalu is thus constructed as the "perfect" place to conduct research on climate change, sea level rise and conservation. Such imaginaries replicate colonial imaginaries of islands as spaces of intrigue for categorisation, investigation and salvation (Baldacchnio and

Royle, 2010). However, the envisioned project has sought to transfer knowledge and technology from the Global North to the Global South. Supported by an American conservation NGO, a drone has been donated to the Funafuti Kaupule and USP. While in Tuvalu, Roberta trained Tuvaluans from both organisations how to operate the drone, mapping islets in the atoll of Funafuti. While previous research has relied on satellite images and aerial photographs, drones provide local scientists with an opportunity to monitor changes to islets themselves. Roberta stated:

> Satellite [data] is not precise enough and it is not time-sensitive enough, it would be my estimation that what you need to do a series of maps at different tides, so you could show how much of the area disappears during a high tide as compared to a low tide. On a satellite you can do that if you have access to some very special satellites, but we don't (Interview, Roberta, 29/07/2019)

Firstly, Roberta indicates the temporality of sea level rise. The ebb and flow of the tide, and the variation in sea level rise due to cyclical processes in the Pacific, can make the monitoring of land lost to sea level rise difficult to calculate. The ever-shifting relationship between ocean and land, and island and tide, illustrates how the fluidity of the ocean can make "knowing" sea level rise difficult. Steinberg and Peters (2015) argue that "the ocean… through its material reformation, mobile churning and nonlinear temporality – creates the need for new understandings of mapping and representing; living and knowing; governing and resisting" (pp.260-61). In the context of sea level rise, volumetric practices such as the technologies of calculation, visualization and manipulation around volume can all be utilised to create these new maps and representations (Bridge, 2013). Utilising drones allows Tuvaluans to engage in these technologies to make visible current,

and future, volumes of seawater in relation to islets. Crucially, drones provide Tuvaluan scientists with an opportunity to create new cartographic and visual understandings of the islets. Dodge (2018) has called for greater attention to be paid to the verticality of human activity and the power relations encoded in the stratification of space that continues to emphasise the importance of high-level vantage points in map production. These new cartographic and visual representations reinforce the significance of the "view-from-above" in catching the diurnal fluctuation of the tide in relation to the land in order to make future sea level rise visible. These new visual representations of the islets, alongside the cartographic mapping, can provide materials for diplomacy. Roberta stated:

> We try to make all these arguments on a diplomatic stage. The first is, we're in trouble. The second is, it's your fault. The third argument is, please take responsibility for mitigating your own footprint. In order to make each argument you need to have some backing, most of that backing needs to be social. But some of that backing needs to be on facts, and mapping provides the facts for the first we're in trouble portion. Which everyone already knows, but you still need the hard-scientific data… Look, we're losing land. Here is how much we are losing per year, yeah. Ultimately, legal arguments need to be based on something concrete (Interview, Roberta, 29/07/2019)

Roberta presents a particular understanding of the role of science within climate diplomacy. She presents a view that diplomacy focusing on climate change "needs to be social", but also accepts the important role of science in providing "hard scientific data" - something concrete and inarguable. Climate diplomacy in the IPCC is a hybrid process of scientific discussion and diplomatic negation (Yearley, 2009). Whilst recognising the role

of normative and moral arguments within climate diplomacy, Roberta reasserts narratives in which scientific knowledge, as a particular claim to truth, must be the basis of climate diplomacy. Klauser and Pedrozo (2015, pp. 287) emphasise that geographers should be considering the “power dynamic unfolding from the technology’s visual and visualizing capabilities”. Drones are envisioned as creating scientific data to level the playing field in international negotiations, the visualisations produced through drones are viewed as providing the backing for diplomacy. Ventura et al. (2016) have identified how drones offer a simple, low-cost and timely alternative for creating topographic and landform data for monitoring coastal marine areas. Nevertheless, although Roberta has worked closely with Tuvaluan researchers and institutions, it is worth noting that this is the perspective of an American despite her use of the pronoun “we” when referring to Tuvaluan diplomacy.

However, whilst the project provides an opportunity for greater Tuvaluan involvement in science, there remain limitations. Although positively received by the Funafuti Kaupule and USP’s Tuvalu Campus, currently the project lacks support from the Tuvaluan Government and thus does not have access to the larger, longer-range government owned drones. Whilst at an early-stage, and small in scale, this drone project illustrates how citizen science is being envisioned as a means to bridge the perceived divide between traditional knowledge and scientific research. Drones are imagined as a techno-fix to the limited funding available to research institutions in the Global South. They are seen as a means by which local communities, researchers and stakeholders can map, monitor and record the changing atoll environment, thereby providing quantifiable evidence which can be deployed to provide a complement to traditional knowledge. However, the form of vision and visualisation that are facilitated by drones reflect the

technical capabilities, underpinning interests and multiple coalitions of authority and expertise through which systems are co-produced (Adey et al., 2011; Klauser and Pedrozo, 2015). Whilst this project focuses on empowering local actors, it has been facilitated by a global network involving an American volunteer and an international NGO. Roberta's trip was self-funded at her own expense and she ran the training for local researchers as a volunteer. The drone was donated by the international NGO. Questions posed by Klauser and Pedrozo (2015, pp. 287) around political geographers' engagement with drone research such as "who will be using the drones and the information generated, and how", remain potent. Whilst, the drone is intended for use by the Kaupule and the University of the South Pacific academics, it is less clear how the information generated will be used and to what degree these visual images will alter Tuvaluan diplomacy.

Connecting both the establishment of the Centre of Excellence and the use of drones by Tuvaluan researcher is a desire to give Tuvaluans a greater input into research conducted surrounding the geomorphological future of their islands. In doing so, both initiatives are purported to increase the legitimacy, and quality, of research by giving space to local understandings of climate change. Nevertheless, significant power inequalities remain within the broader research process. Questions of funding, publishing and capacity will not be addressed. Through the verticality of the drones, Tuvaluans researchers seek to place a greater emphasis on the local, lived experience but through an internationally recognised medium. Western knowledge has prioritised the so-called "view-from above", through the creation of aerial photographs and mapping, Tuvaluan researchers seek to make local understandings of climate change visible.

5.4 Conclusion

The narrative of sinking islands has become ubiquitous in understanding of Tuvalu and Kiribati's climate future; questioning their persistence and durability as states. Rising sea levels and sinking islands rely on particular vertical geopolitics through which the potential political futures of atolls states are imagined, contested and disrupted. "Sinking" collapses the complex ocean-island-climate nexus into a simple narrative through which the impacts of climate change can be represented. Intersecting with this verticality is a particular temporality in which alternative climate futures for atoll states are closed down. By deterritorialising climate change, "sinking" reduces the responsibility and accountability of greenhouse gas emitters by detaching local environmental degradation in atolls from the broader Anthropocene. Moreover, narratives of "sinking" downplay other significant challenges to island life that will arise from climate change such as issues of water security and food security. Elden (2010) argues that territory can be understood as a form of political technology, consisting of techniques for measuring land and controlling terrain. Disruption of this ability to control the terrain and measure the land through the imaginary of sinking island in Kiribati and Tuvalu thus destabilises the political technology of territory.

The narrative of sinking islands has become ubiquitous in understandings of Tuvalu and Kiribati's climate future; questioning their persistence and durability as states. Science has been drawn upon by both domestic and international actors to legitimise Tuvalu as a key site in understanding the urgency and severity of global climate change. However, the hyper-visibility of Tuvalu within climate discourses (Farbotko, 2010b) and the construction of its inundation as inevitable have rendered it a key site of contestation.

Contemporary geomorphological research on the impacts of sea level rise in Tuvalu has been co-opted and utilised within climate-sceptic circles. Consequently, Tuvalu's position as the "canary in the coalmine" has been used to discredit the credibility of climate change activism. This illustrates the importance of considering the geopolitics of knowledge production. Due to the exclusion of Tuvaluan voices, the Tuvaluan Government has reacted with hostility to research questioning the rate of land loss which it feels undermines its diplomatic position.

The location of knowledge production matters. Theory is not a disembodied phenomenon, where it is produced shapes and inspires its production (Roy, 2016). The Tuvaluan state has sought to establish a research centre in an attempt to claim greater ownership over the knowledge produced about its islands resonating with calls to decentralise the locales of knowledge production (Roy, 2009). Similarly, emergent transnational networks have sought to use citizen science to increase the legitimacy of local voices through drones, cartography and scientific knowledge. However, the local is not a pre-existing scale. In this context, the local is understood by the Tuvaluan Government to constitute the national level whereas Tuvaluan citizens understand local knowledge as their everyday perceptions of their changing islands. Whilst much of the literature considering vertical geopolitics has focused on military usage of drones (i.e Graham, 2004; Williams, 2013) this chapter highlights how drones are being reimagined within citizen science as a tool to challenge hegemonic practices of knowledge production around climate. Enrolling media such as maps and aerial photographs, Tuvaluans have sought to assert their own agency in the shaping of knowledge of sea level rise in their islands. Bridge (2013, pp. 55) argues that "height and depth provide a degree of remove from the realm of experience; with that remove comes the possibility of selective

engagement between one plane and another”. Here, verticality has been mobilised in an attempt to make local forms of knowledge legible to a wider audience. Utilising the drones to capture a view-from-above, knowledge produced through drones is being used by Tuvaluan researchers to contest narratives around their islands. Moreover, there is a temporality involved in this knowledge production. Atolls and their islets are dynamic geomorphologically features, affected by tides, currents and seasonal fluxes.

These contested climate futures draw upon different forms of knowledge, which consequently lead to very different forms of anticipatory action in the present. Climate change adaptation is a key process which is simultaneously influenced by, but also challenges, these imaginaries of the future of Tuvalu and Kiribati. Within the next chapter I unpack how these imagined futures influence the temporalities and spatialities of climate change adaptation.

Chapter 6: "Buying Space and Time": Reclaiming the future of atoll states through adaptation in Tuvalu and Kiribati

6.1. Climate Change Adaptation and Geopolitics

Due to the failure of global efforts to mitigate the impacts of climate change, adaptation is a necessity for all atoll communities. According to the UNFCCC (2020b), "[a]daptation refers to adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change". Adaptation thus rests upon adjusting ecological or socio-economic systems to accommodate environmental change. In doing so, adaptation relies upon and reinforces particular geopolitical imaginaries of the relationship between the state, territory and identity. Government decisions on climate change adaptation strategies are informed by imaginaries of the future configuration of nation-states. In turn, these decisions subsequently inform what futures are possible. Different adaptation strategies prioritise certain spaces, islands and socio-economic systems with significant political implications.

Mikulewicz (2018) argues that research into climate adaptation is often underdeveloped when it comes to its analysis of power and politics in conjunction with socio-economic factors. This chapter argues critical geopolitics can offer an insight into the role of the spatialities, temporalities and geographies that underpin adaptation. Given the construction of sea level rise and climate change as existential threats to small island states, particularly low-lying atoll states, how has adaptation been imagined as a response to these changes? How have discourses of severity and urgency around climate

change influenced contemporary decisions on adaptation? Large-scale land reclamation projects and the construction of artificial islands have been framed as adaptative measures through which the creation of new land buys atoll states both time and space, which space substituting for time. Consequently, this chapter advocates for greater attention to paid to the intersection of the temporal and spatial dynamics of climate adaptation.

Firstly, this chapter explores how different framing of climate change influences what can be considered "adaptation" in the context of contemporary climate geopolitics. Secondly, it will argue critical geopolitics through its focus on discursive practices, spatial metaphors and labels and critique of the production of the binary of self/other - can offer insight into the geopolitical imaginaries underpinning processes of adaptation in ways that other discursive approaches cannot. This will focus on two forms of adaptation: land reclamation and the construction of artificial islands. Three separate land reclamation projects from both Tuvalu and Kiribati will be used to explore the concept of resilience, the temporalities of climate change, and the performative element of adaptation. Finally, this chapter will contemplate how artificial islands are being used to test the conceived limits of adaptation.

6.2. Resisting "Migrating with Dignity": Contested narratives of adaptation in Kiribati

Mass migration has increasingly, and repeatedly, been declared as an imminent and inevitable consequence of climate change, with the International Organisation for Migration (IOM) highlighting that current estimates for climate displacement range between 25 million and 1 billion people by 2050 (Connell, 2013; Wyett, 2014; IOM, 2008). Consequently, climate-induced migration has become securitized as a threat to borders, states and the international system through a 'geopolitics of fear' based on narratives of

‘climate refugees’ despite the erroneity of “climate refugees” and resistance from small island terms towards using the term (Chaturvedi and Doyle, 2010; Dreher and Voyer, 2014; McAdam and Ferris, 2015). As discussed in Chapter 2, Migration has not only been seen as a negative consequence of climate change but also as a potential adaptive strategy focusing on individual agency (Connell, 2013). Scholars however have been critical of this neoliberal narrative, arguing viewing climate-induced migration as adaptation renders climate-threatened populations as governable subjects subject to the whims of global labour markets (Felli and Castree, 2012; Black et al., 2011; Methmann and Oels, 2015).

Pacific Island governments have refused to endorse international migration as a form of adaptation despite their pro-migration attitudes more broadly with labour mobility a top priority in discussions at the Pacific Island Forum (PIF) and regional trade negotiations (Kautoke-Holani, 2018). One notable exception to this was the Government of Kiribati prior to 2016. Under former President Anote Tong, Kiribati actively pursued a form of pre-emptive climate migration entitled “Migration with Dignity”. Championed by Tong from the early 2010s, through to, and beyond his leaving office in 2016, Migration with Dignity was envisioned as a pre-emptive relocation scheme that facilitated current and future migration of those affected by climate change. The scheme focused on increasing the educational and training opportunities available to the i-Kiribati population to enable them to relocate as economic migrants before environmental degradation forced their relocation overseas. According to Farbotko et al. (2016), Migration with Dignity was a state-led attempt to try and formalise more optimistic mobilities in response to climate change. Tong at the UN General Assembly in 2014 stated:

> Our “Migration with Dignity” strategy is an investment in the education of our people and the upskilling of our young population to equip them with educational qualifications and employable skills that would enable them to migrate with dignity to other countries voluntarily and in the worst-case scenario, when our islands can no longer sustain human life (UN, 26/09/2014, UN Past General Assembly Debates Archive).

Migration with Dignity was envisioned as a national project for Kiribati to secure agreements that would facilitate international migration, establish expatriate communities in receiving countries and increase remittances (McNamara, 2015). Despite this national approach, by focusing on facilitating individual opportunities and the ability of individuals to exercise agency, Migration with Dignity sought to empower individuals to adapt to climate change in a ‘dignified manner’. In doing so, dignity was equated with self-sufficiency and ability to engage in work by increasing the social-capital of i-Kiribati to enter international labour markets. This ‘upskilling’ of the population via vocational and technical training took on several forms such as the AusAID teacher training program, the Kiribati Australia Nurse Initiative, the Kiribati Institute of Technology and numerous projects run by Cuba (Farbotko et al., 2016). However, participants, including those working for regional organisations, expressed scepticism over the climate-focus of Migration with Dignity. One respondent, Jonathon, a European scientist working for a multilateral institution with development and climate change projects in Tuvalu and Kiribati, stated:

> Tong was promoting this idea of Migrating with Dignity… let’s pretend there is no climate change. He would need to be doing that anyway. They are at absolute

> saturation, every year a new cohort of kids that come out of school with a western-style education. If you have that western style of education, teaching you about the big wide world, are you going to stay in Tarawa where there is [sic] such limited opportunities? (Interview, Jonathon, 02/07/2018)

Like many other PSIDS, Kiribati has contemporary challenges around youth unemployment, education and limited formal employment. Kiribati's population is forecast to grow from 103,000 at the last census in 2010 to 208,000 by 2050, increasing the pressures from urbanisation, sustainable development, environmental degradation, overcrowding and foreshore erosion on land availability (Bedford et al., 2016). As highlighted by Jonathon, demographic pressures from Kiribati's youthful population and questions of development have led to greater pressure for the government to secure international migration agreements. Migration with Dignity can be seen as merely one manifestation of the perceived need to facilitate mobility, with pressures from a growing population seen as exacerbating issues from climate change. However, criticism of Migration with Dignity has not only focused on its tentative links to climate change. Other actors have challenged the framing of migration as a form of adaptation. Mark, a European climate change program officer working for a Pacific-based regional organisation, stated:

> I think there is a perception that by engaging too much into a robust conversation on migration countries may start to give a signal that they are less in pursuit of the funding and support they need to fund adaptation and the huge amounts of financing gaps that countries face. So that creates a bit of polarization between whether it is worth advancing discussions on migration now or basically focusing

> on adaptation with a long view being that's when we do more on migration (Interview, Mark, 02/07/2018)

Adaptation strategies remain highly political as they implicitly reinforce particular geopolitical imaginaries around the future of the state. As highlighted by this respondent, there is a perception that by proactively pursuing migration as a form of adaptation, Kiribati may be seen as less concerned in securing contemporary climate finance for in-situ forms of adaptation. In doing so, Migration with Dignity creates a future in which the abandonment of the islands of Kiribati is a possible scenario. Land is fundamental in the construction of the i-Kiribati identity, with the i-Kiribati word of "aba" meaning both land and people (Hermann and Kempf, 2017), thus the legitimisation of a future which separated the i-Kiribati people from their land challenged a core ontological component of i-Kiribati identity. Although Tong's administration stressed that migration was only to be viewed as an option of last resort, the focus placed on Migration with Dignity both internationally and domestically resulted in migration dominating discussions of climate adaptation in relation to Kiribati. Consequently, there was significant political resistance to Migration with Dignity from opposition figures in Kiribati. Notably, Taneti Maamau, who replaced Tong in office following the presidential election in 2016, was opposed to Migration with Dignity. Instead, Maamau has focused on sustainable development and the ability of the i-Kiribati Government to adapt in-situ. Addressing the UN General Assembly in 2017, Maamau declared:

> We simply cannot afford to wait any longer. As part of my Government's 20-year vision for Kiribati (KV20), we have decided to take charge of our fate and put in

> place innovative financing modalities. This will allow us to fast-track financing support for our sustainable development agenda, especially in relation to climate change and disaster risk reduction (*UN, 22/09/2017, UN Past General Assembly Debates Archive)*

As discussed in the previous chapter, Maamau uses the urgency inherent in representations of climate change impacts for atolls to justify his action. His focus is on securing finance to facilitate development to adapt to climate change. Sara, a European diplomat specialising in climate change and based in Suva to a mission that is also accredited Kiribati, argued that “it is a difficult topic because the threat Kiribati faces is very grave but at the same time to give up fighting for your country is a difficult thing” (Interview, Sara, 21/06/2018). As highlighted here, Migration with Dignity was perceived as “giving up” on tackling climate change in Kiribati as opposed to a scheme that highlighted the precarity of Kiribati’s position. Whilst the scheme was intended to facilitate future migration as a last resort and offer a more hopeful future for the population, it has been perceived as legitimising a future in which the abandonment of Kiribati was a possible outcome of environmental degradation. It is worth noting that Tong was, and continues to be, synonymous with the scheme and has continued to promote this approach to climate adaptation since leaving office in 2016 through projects such as his film, “Anote’s Ark”. Subsequently, Maamau has sought to distance his administration from Migration with Dignity by portraying it as a fearful approach to climate change in which the i-Kiribati would have to abandon their islands due to inundation. Notably, in 2018 the i-Kiribati Government deported Matthieu Rytz, the filmmaker who worked with Tong on Anote’s Ark as well as barring entry to other

journalists and academics researching climate change and migration.[19] Domestically, the plan has had a poor reception from the Kiribati population. Repeki, a diplomat from another Pacific Island State who attended COP23 in Bonn, and has experience negotiating with Kiribati, suggested:

> On the ground, it was frustrating. Tong seemed to be far more interested in global issues around climate change and neglected social policy at home… Adaptation money cannot be spent on social projects and this was a big election issue. (Interview, Repeki, 06/07/2018)

There is a clear spatial and temporal disconnect associated with Tong's climate diplomacy surrounding Kiribati's future. Whilst Tong's diplomatic efforts focused on securing the long-term socio-economic livelihoods of the i-Kiribati, critics such as Repeki have stressed that much of the unpopularity surrounding Migration with Dignity has focused on the perceived neglect of domestic issues in the short term. Climate advocacy was perceived to be undertaken at the cost of economic development and alleviating social issues at home. Mark described how during the Tong era:

> There was a need to bring things more into the domestic space. There was an element of the population that felt the previous administration was looking too far out and that there was a need to refocus on tangible things in the country… that kind of policy shift was more towards looking inwards than looking outwards

[19] As discussed in Chapter 3, I was among the academics barred from entering Kiribati.

> which is what the Migration with Dignity was seen to be more about looking outwards. A concept not necessarily in keeping with some people's views even if it was the wrong interpretation of what Tong meant. (Interview, Mark, 02/07/2018).

Due to his focus on climate change and significant international travel to engage in climate diplomacy, Tong was perceived as too 'outward' looking according to policymakers in Kiribati. In contrast, Maamau has been portrayed as more 'inward' looking. Since leaving office, Tong has responded to Maamau's new climate policies and approaches. In a *Washington Post* op-ed co-authored with filmmaker Matthieu Rytz, Tong criticised the current administration's focus on economic development to support climate adaptation writing "instead of actively dismantling climate policies set by a previous government, the current administration should focus on building realistic climate mitigation plans", before arguing, "As for Kiribati? It is already too late" (Tong and Rytz 2018). This fatalism reinforces the discourses of fear around Kiribati's climate future as discussed in Chapter 5. George Wallis (1970) in his discussion of chronopolitics, discusses how different conceptualisations of the present alter political decision making. If the present is viewed as a time of transition, a key moment in which decisions on climate adaptation are irreversible, then the stakes are elevated. Contemporary adaptation policy is seen as determining the sovereign political futures available to Kiribati, because climate change is perceived as an existential threat to the state. Thus, the discussion of migration as an adaptive solution closes down alternative futures in this time of transition.

As noted by Eriksen et al. (2015, pp.524), "what counts as 'adaptive' is always political and contested. What is seen as a positive form of adaptation to one group of people may

be seen as mal-adaptation to another, and political processes determine which view is considered more important at different scales and to different constituencies." Whether migration constitutes a form of adaptation remains highly contested in Kiribati. Whilst for Tong, migration could constitute an important adaptive strategy to protect the dignity of the i-Kiribati, Maamau's Government has deemed migration as incompatible with adaptation strategies. One diplomat at the Pacific Island Forum in Funafuti remarked in conversation that most i-Kiribati did not view migration as climate adaptation (Participant Observation, 15/08/2019). Farbotko (2019) has argued that Migration with Dignity did not sufficiently advance ontological security for the i-Kiribati. Consequently, the new administration has sought to move away from a migration-focused position, focusing instead on adaptation in-situ by constructing an imaginary of "Resilient Kiribati".

6.2.1 Resilient Kiribati: Climate change as a barrier to development

Migration with Dignity was based on the premise that inundation was a potential future. Since 2016, the new administration in Kiribati has sought to focus on Kiribati's ability to adapt in-situ. Tito, a senior i-Kiribati diplomat who was appointed by Maamau, explained how the new government was focusing on "resilient Kiribati rather than Migration with Dignity" (Interview, Tito, 23/08/2018). Resilience, in the context of climate change, holds out the promise of living with, and even benefiting from, the change, uncertainty and vulnerability associated with environmental change (Grove and Chandler, 2017). By focusing on resilience, the new government of Kiribati has sought to offer an alternative to Migration with Dignity in which the population remains in-situ and robustly responds to climate change. These 'new' narratives tap into broader, historical understandings of

resilience in the context of small Pacific island. Tony, a Pacifica representative from the Pacific Island Development Forum (PIDF), described how:

> One thing people don't understand is how adaptable and persevering Pacific people are. They haven't had it easy. The people in Kiribati haven't had it easy for the last hundreds of years, or however long they have been living there. They have been able to adapt you know? Build resistance and resilience and that is already there. That resilience is there. All we are saying now is, take that resilience to another level and you know? The only thing that would really push them out is if it gets inundated by water (Interview, Tony, 09/07/2018)

Tony's references to the resilience of i-Kiribati are echoed in the narratives being promoted by i-Kiribati politicians and diplomats. Tito described how "our ancestors built resilience within themselves", going on to describe how sea walls could help the current population to adapt and preserve themselves (Interview, Tito, 23/08/2018). Resilience as a concept remains empirically and analytically fuzzy, with the recent discursive shift towards resilience seen as emblematic of the normalisation of unavoidable climate change (Methmann and Oels, 2015). Resilience is identified by policymakers such as Tony and i-Kiribati officials like Tito as an innate characteristic of the population of Kiribati, thus heightening their perceived ability to adapt to a changing environment due to climate change. Narratives of 'Resilient Kiribati' build upon and reinforce increasing awareness of the adaptability of Pacific populations to environmental variability and change. In doing so, climate change is contextualised as merely the most recent manifestation of environmental change in the Pacific and that islanders were able to deal with their limited resource bases and remoteness long before contact with Western

societies (Weber, 2016; Ratter, 2018). Tony stated Kiribati needs to "take that resilience to another level", implying an evolution of policy based on existing practices as opposed to a transformative approach to adaptation. Ahohaka, an i-Kiribati diplomat appointed by Maamau's administration, argued:

> President Maamau he is very focused, it is all about Kiribati, and ensuring that we build our resilience moving forward. So, not only resilience but adaptative capacity as well minimising the impacts but also ensure there is a Kiribati in the long term [sic]… so we are currently in the development of a long term coastal security policy for the country and ensuring that consideration for land reclaiming, coastal defence systems are kind of built and maintained to ensure the longevity of where people live (Interview, Ahohaka, 05/12/2018)

Within this statement, there is an assertion that by focusing on resilience building, land reclamation and in-situ coastal protection that Maamau is "all about" Kiribati. Supporters of the current government have argued Tong's global diplomacy, which sought to elevate Kiribati's profile within climate change discourses, did not ultimately benefit Kiribati itself in the long term. Key to this reimagining of Kiribati's political future the delegitimising of Tong's approach undermining the imaginaries of Kiribati as a "sinking island". Consequently, climate change has been reframed as a barrier to economic development as opposed to an existential threat. Ahohaka continued:

> In our context development has a barrier and that barrier is climate change. So, climate change and disasters in Kiribati and development you know cannot happen without really addressing these impacts first. So, it is something we see as

> embedded within development and a facet of development (Interview, Ahohaka, 05/12/2018)

Incorporating climate adaptation within development narratives not only shifts understandings of climate change but also has material and political implications for Kiribati. Critics of Tong's climate policies argued there was a failure to address development on the outer islands of Kiribati. Embedding climate change within economic development can help to localise international efforts to attain assistance, thereby leading to more support for the outer islands. Embedding climate change within development facilitates climate project funding that also aids development. This assertion is reflected in the Kiribati Vision 20 (KV20) document which was published by Maamau's Government as a long-term development blueprint. It states:

> The Vision recognises Kiribati's vulnerability to climate change as a key constraint to achieving the desired outcomes… Mainstreaming climate change into development programming will ensure that the working environment is sensitive to environment conservation, climate change and sustainable development (KV20, 2016; pp.9)

The transformation of climate change from an existential threat to a barrier of development can be seen in the section of KV20 which explicitly addresses climate change. It is notable, particularly in contrast to policy documents published under the previous administration, how climate change lacks visibility within the document. In the KV20, climate change is only discussed in two short paragraphs on the 55th page of the

68-page report. Under the heading “Cross Cutting Issues, Environment, Climate Change and Sustainable Development”, the report states:

> Sea level rise and exacerbated natural disasters such as drought and weather fluctuations pose significant and direct additional threats to sectors and resources central to human and national development and the provision of basic human needs (KV20, 2016; pp.55)

Sea level rise is thereby presented as a threat to Kiribati’s development as opposed to an existential threat to the state. Altered environmental conditions are presented as challenges for the socio-economic standard of living for i-Kiribati citizens. Consequently, land reclamation has become seen as a panacea to the impacts of climate and broader development challenges as discussed later in this chapter. However, the shift in focus of the i-Kiribati Government has raised concerns among international consultants and foreign diplomats. Sara is a European Diplomat working at a European mission in Suva on climate change, however, she is also accredited to other Pacific Island States including Kiribati. She stated:

> The biggest challenge in climate change to Kiribati is more on the political side… So President Maamau has his KV20, his Kiribati Vision. KV20 plan – and the two core elements of it are fisheries and tourism… we have some concerns about that… But I think it is a bit misguided in terms of what they are hoping to get in terms of tourism. I think it would be better served to be focusing that funding towards infrastructure on climate change – resilience and adaptation. So, I think that is a bigger threat (Interview, Sara, 21/06/2018)

According to Sara, there are concerns over how tourism features within the KV20 plan. The scale and centrality of tourism within the KV20 was of particular concern to many participants from regional organisations and development agencies. According to the World Tourism Organisation, Kiribati is among the least visited states on Earth (UNWTO, 2018; Telegraph, 2019). Tourism is mentioned 64 times within the KV20, and the i-Kiribati Government seeks to increase tourism's contribution to GDP from 3.6% in 2016 to 50% in 2036. As highlighted by Sara, this is understood as diverting funding away from climate change adaptation as "it would be better served to be focusing that funding towards infrastructure on climate change". This criticism illustrates how Western diplomats and consultants remain critical of projects pursued by Kiribati, and other SIDS, which do not fall into their own categorisation of adaptation.

Maamau has used UN Climate Change summits to set out his image for Kiribati's future, entwining development ambitions with climate resilience. He argued at COP23 in Bonn that he "has an ambitious aim to transform Kiribati into the Dubai or Singapore of the Pacific" (CBS, 2017). Dubai and Singapore are seen as exemplars of cities in the Global South which through development have been transformed into beacons of modernity with significant tourist industries. Notably, both have engaged in land reclamation and construction of artificial islands. Jackson and della Dora (2009, pp.2098) argue that "the Dubai and post-Dubai man-made islands rise just a few metres above sea level. They feature as liminal spaces, disregardful of the presence of climate change, and yet responding to the perceived chaos of the human and environmental present". In referencing Singapore and Dubai, Maamau not only offers a potential blueprint for

development but seeks to create a future for Kiribati not dominated by climate change. However, this ambitious goal is treated with scepticism by some regional actors beyond Kiribati. Carl is a European development consultant working on projects funded through European overseas development aid in the Pacific, specifically climate change projects. He stated:

> I would say that's dreaming. Basically. Especially when it comes to tourism… Christmas Island is the only spot I see potential because that is already for big game fishing that is already known you could do with some diving there but it's so remote if there is an emergency, forget it. Forget it. It is so off-limits; I don't see that happening in the near future (Interview, Carl, 12/07/2018)

It is worth highlighting how Carl is discussing the implications of KV20 at a subnational level. Whilst he states there may be some opportunities for development in Kiritimati (Christmas Island), large scale tourism is dismissed as "dreaming". These imaginaries are seen to be ephemeral and will be difficult to maintain in the immediate future. Carl continued:

> I think reality will kick in pretty soon because they need money to establish their tourism projects and money they don't have, they won't be able to spend so I think that is going to be regulated by reality (Interview, Carl, 12/07/2018).

Financial constraints are seen as the barrier to using tourism to develop climate resilience.

Eriksen et al. (2015) highlight how any adaptation decision prioritises some interests over others, hears some voices whilst ignoring others with this prioritisation and exclusion

leading to both positive and negative effects which are unevenly distributed socially, spatially and temporally. Shifting the narrative to one of "resilience" has led to the exclusion of critical voices over the scope and scale of the development strategy envisioned by the new Kiribati administration to tackle the issue of climate change. Although the development plans are arguably over-ambitious, the KV20 plan is a geopolitical statement by the Maamau administration that Kiribati has a future in-situ. Within the narrative of "Resilient Kiribati", hard engineering and in particular land reclamation is increasingly prominent as a form of adaptation.

6.3 Atoll Adaptation: Land Reclamation

Climate adaptation in both Tuvalu and Kiribati has focused on forms of hard engineering, such as sea walls, and soft engineering, like mangrove replantation. Within the hard engineering projects, multiple land reclamation projects are being planned and implemented as a form of coastal protection. According to the OECD (2001), land reclamation is the gain of land from the sea, wetlands, or other water bodies. Land reclamation increases the habitable land mass of atoll nations and provides important space for agricultural production. Increasingly, land reclamation is being reimagined as a form of climate adaptation for atoll nations to adjust to rising sea levels, declining agricultural productivity and environmental degradation. This section will focus on three separate land reclamation schemes at different stages of completion. Currently planned for South Tarawa, Kiribati, the Temaiku Project will be considered to explore "resilience" in the context of land reclamation. The Tuvaluan Coastal Adaptation Project on the islands of Funafuti, Nanumaga and Nanumea is mid-implementation and will be used to examine the temporalities and spatialities of land reclamation. Finally, the role of

performance will be investigated through a consideration of the completed Queen Elizabeth Park reclamation in Funafuti, Tuvalu.

6.3.1 Temaiku Project: A Resilient Kiribati?

Within the i-Kiribati Government's narrative of "Resilient Kiribati" land reclamation has featured prominently as a form of climate adaptation that will help to build "resilience". In contrast to individualised and community-based narratives of resilience, the Temaiku Project is a state-led initiative. According to Kiribati's long-term development blueprint, entitled Kiribati Vision 20 (KV20), the Government (2016, pp.20), "aims to reclaim and raise land up to 2m above sea level to address land scarcity and minimise the impacts of climate change". Land reclamation is presented as means to "minimise" the impacts of climate change as well as to address the issue of land scarcity in the capital of South Tarawa. Entitled the "Temaiku Project", the proposal is supported by finance from the New Zealand Ministry for Foreign Affairs and Trade Aid Programme. Under the Temaiku project, the i-Kiribati Government proposes to reclaim 300 hectares to provide homes for 35,000 people 2m above the predicted 2200 sea level (KV20, 2016). As illustrated in Figure 3, the project is depicted as including a variety of public spaces, commercial buildings and homes set in a pristine setting.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at: JACOBS. 2020. *Temaiku Land and Urban Development* [Online] Available at: https://www.jacobs.com/projects/Kiribati [Accessed 27 January 2020]

According to Jacobs, an American international technical professional services firm working with Kiribati, under the banner of "Reclaiming a Resilient Future":

> Temaiku is the first large scale climate change adaptation development of its kind for small island nations, the success of which was recognized when the President of Kiribati presented the Project at the 2017 UN Climate Change Conference, COP23 in Bonn, Germany (Jacobs, 2020).

Temaiku is presented as a novel form of climate adaptation despite similarities in scope, if not scale, with the land reclamation component of the Tuvaluan Coastal Adaptation Project. The motif of "reclaiming a resilient future" raises questions over what exactly the land reclamation project is reclaiming the future from. Raising the international profile of the project and Kiribati itself is a key tenet of the potential success of the reclamation, illustrated by its profiling at COP23 by Maamau and the prominence of the awards

section on the Jacobs website. The perceived durability of land reclamation is seen as one of the attractive components to ensure success. Jonathon, a European scientist working for a multilateral development organisation with projects in both Tuvalu and Kiribati, argued:

> You do have fantastic opportunities even in South Tarawa for reclamation and reclamation to a height that would buy them 200 years of safe living easily…you could very easily reclaim an area to a height of 3-4m, engineer the foreshore, however. Put the roads, the infrastructure, the lights, the wastewater on there. Move these people onto it, accommodate the urban drift (Interview, Jonathon, 02/07/2018)

Land reclamation is thus identified as an adaptation strategy which would alleviate concerns around sea level rise whilst simultaneously overcoming climate change as a barrier to development. By reclaiming land, the Temaiku project is presented as an opportunity to start afresh installing the infrastructure deemed necessary for development – creating a clear distinction between the current conditions of urban migrants and the potential future conditions of the i-Kiribati on the reclaimed land. Entwining both climate adaptation and development through the narrative of resilience is seen to provide a long-term solution, highlighted by the claim that the project will provide 200 years of “safe living”, pushing against narratives of impending inundation and catastrophic environmental degradation that dominate contemporary understandings of atolls. Jonathon continued:

> Is anybody within the international community that I bump into, and I bump into a lot from all levels, thinking this big? This pragmatically? Absolutely not. And most, worse still are caught up in the, "Oh but islanders don't want to live like that". You can hear their little hearts breaking as you talk about it. That is a redundant stereotyping stupid outlook that should have been left at home. We've got to get to grips with the reality of these places (Interview, Jonathon, 02/07/2018)

Similarities can be drawn here between the argument made by Jonathon and the justification for Migration with Dignity. Pre-emptive migration is envisioned as restoring agency to small islanders in light of the socio-environmental transformations of climate change. The Temaiku project is based upon a future in which the i-Kiribati remain in-situ in South Tarawa. As illustrated by Jonathon, there is a perception among some regional actors that international understandings of what constitutes desirable climate adaptation for SIDS remain framed by colonial imaginaries of islands. International policymakers and consultants view particular forms of adaptations as incompatible with their perceptions of island life. High-density, high-rise buildings are viewed as irreconcilable with island customs and traditions. However, Jonathon's view is not universal, and this scepticism may be focused more on the capacity of Kiribati to implement significant projects. When asked about land reclamation, Carl, a European development consultant working on European funded projects in the Pacific, stated:

> the investments that were announced by World Bank, ADB [Asian Development Bank], Australia, New Zealand, the GCF [Green Climate Fund], the GEF [Global Environment Facility]. There are millions pouring into the country at the

> moment… I have really no idea how they are going to implement all this money (Interview, Carl, 12/07/2018).

Criticism of large-scale land reclamation projects focuses far more on the capacity of atoll states to implement such schemes than romanticised conceptions of island life. Consideration of the Temaiku project illustrates how large-scale, hard engineering projects are viewed as a means of manufacturing “resilience” for atolls in response to rising sea levels. It illustrates the disconnect between the desires of islanders to remain in-situ and the prejudices held by international policymakers who have particular understandings of what constitutes an acceptable form of adaptation. Whilst the Temaiku project remains at the early stages, a land reclamation project in Tuvalu is already under implementation as a form of climate adaptation.

6.3.2 The Temporalities of the Tuvaluan Coastal Adaptation Project

Underpinning land reclamation projects are clear temporalities around sea level rise, climate change and future imaginaries of the state. The problematisation of the future statehood of atoll states has resulted in extraordinary action through large-scale hard engineering projects mobilising particular anticipatory geographies (Anderson, 2010). Launched in August 2017, the Tuvaluan Coastal Adaptation Project (TCAP) will be executed over seven years and focuses on three islands: Funafuti, Nanumaga and Nanumea. The US$39 million project, funded by the Green Climate Fund (GCF) and the Tuvaluan Government, aims to reduce exposure to coastal hazards (TCAP, 2020b). According to TCAP, the project seeks to “reduce exposure to coastal hazards in the three target islands, developing a long term coastal adaptation strategy, building capacity of

national and local authorities to better implement adaptation actions, and investing in youth as future stewards of a resilient Tuvalu" (TCAP, 2020b). As the Tuvaluan Government's flagship adaptation project, TCAP clearly illustrates how the Tuvaluan state is prioritising hard engineering. Lono, the Permanent Secretary of the MFATTEL, when asked about the project, explained:

> So, the priorities, what the focus of the project is, depends on our climate change priorities... And I think the building of sea walls and the protecting of islands was key. Why? Because we needed space to think. To give us more time. So, we have to build the islands (Interview, Lono, 29/08/2019).

Given narratives around the impending climate crisis and the urgency of action through understandings of Tuvalu as a "sinking island", these hard engineering measures are seen to alleviate the immediate nature of the threat to give Tuvalu "more time". As such, it is seen as imperative that the Tuvaluans "build the islands" with the creation of new physical space for the nation. In doing so, space has become a substitute for time with adaptation projects focusing on space creation seen as extending the inhabitability of Tuvalu. However, this viewpoint is not ubiquitous. Maatia, a representative of the TUCAN and civil society at COP24 in Katowice, argued:

> In terms of not only buying time - we do not want to leave. We cannot say we do not want to leave and then we do nothing. We do not want to leave our home and at the same time, the Government of Tuvalu is trying to explore the alternatives that are available out there. So, in terms of extending the reclaimed land, it is vital for the protection of the land (Interview, Maatia, 06/12/2018).

Here, Maatia disagrees with Lono over the rationale of the land reclamation of the TCAP. Maatia argues the project is "not only buying time – we do not want to leave", seeing any narrative of buying time as potentially endorsing a future in which Tuvaluans would need to relocate. Maatia contends that the project is illustrative of the Tuvaluan will to remain and the necessity of reinforcing Tuvalu's assertive international diplomacy with domestic action thereby collapsing the binary between the domestic and the foreign. Reference to exploring the alternatives alludes to the multiple geopolitical futures imagined for Tuvalu. There is a clear emotional politics at play here, enforcing the rootedness of the Tuvaluan people. Kilipaki, the Director of the Department of Environment of Tuvalu, when describing TCAP, reported:

> The word is adaptation. To adapt to the encroaching sea, sea level rise, we need to reclaim… It is not only reclamation to have bigger land, but it is reclamation to grow. The reclamation plan is steady, to build infrastructure yes. But we can also plant edible trees…Breadfruit tree, bananas, coconut. So, you know? It is also a win-win solution. We can expand the land but also try to plant more of these edible crops that we can eat for food security (Interview, Kilipaki, 20/08/2019).

This interview extract illustrates the centrality of land reclamation within the current adaptation strategy of the Tuvaluan Government. Reclamation is presented as not only an adaptive strategy to sea level rise but also a means of ensuring the food security of Tuvalu in light of the increased variability of rainfall, the increased frequency and intensity of droughts, and saltwater intrusion into the soil. Whilst Walshe et al. (2018) argue that communities in the South Pacific often prioritise other issues like poverty or

livelihoods over climate change, TCAP has been framed as a solution to multiple issues which are affecting Tuvalu in both the present and the future. Lono described how:

> So, GCF [Green Climate Fund] was susceptible to the idea but adaptation is very important for us. We have to adapt to the changing climate. We cannot adapt on our own. We have to adapt with support from our development partners and international and multilateral organisations. So, the funding that, some of our bilateral partners were supposed to give directly to us. They said no it is in international financial institutes. It was good that we coordinated the project, then we have someone in an implementing capacity like the UNDP really helped us…Submitted in 2015, got kicked back by GCF. Then in 2016 we resubmitted, and it went through (Interview, Lono, 29/08/2019).

This quotation illustrates the fundamental tension at the heart of Tuvaluan climate adaptation. Lono identifies the significance of adaptation for Tuvalu and how "we have to adapt", thus emphasising the perceived responsibility of the Tuvaluan Government to implement adaptation to climate change and its agency to bring about adaptation. However, this agency is tempered by a dependence on development partners and international organisations to fund, plan and implement adaptation. Tuvalu's climate adaptation is influenced, restricted and ultimately shaped by international organisations such as the GCF. An example of this can be seen in the evolution of TCAP. Originally, TCAP's focus was on building protective barriers like seawalls to protect vulnerable parts of the coastline. However, following the completion of the Queen Elizabeth Park reclamation, the local community shifted its focus towards reclamation. Kanaloa, a Tuvaluan climate change consultant, described how:

> After the completion [of the Queen Elizabeth Park], initially the coastal protection for Funafuti was just a sea wall – TCAP will pay for that. And then they [the FaleKaupule] saw this, once the government has erected this Queen Elizabeth Park, they wanted this too. Land reclamation does not only protect them from the waves, it also means they have more land (Interview, Kanaloa, 20/08/2019)

This illustrates the attractiveness of land reclamation as a form of climate adaptation for Tuvaluans as it seen as addressing issues of land scarcity alongside climate change. Following a renegotiation with the GCF, funds were diverted towards land reclamation with the government planning to reclaim 80,000 square metres (Round, 2019). Taukelina, a senior official in the Funafuti Kaupule, explained the difficulty of shifting the funding:

> It is the Falekaupule that asked to change from protection to reclamation. We have had a hard time arguing with the UN and the Green Climate Fund. They said no, this is just for protection…We said we don't want that, what we need is more space on this island. If we don't get any extra there, we are going to be in trouble. There will be a lot of problems for social, social problems. Servicing the schools, and hospitals. And places for people to live in, accommodation. There is not enough. (Interview, Taukelina, 28/08/2019)

Crucially, this extract illustrates how the contestation of what constitutes adaptation plays out in the interaction between states and international bodies like the GCF. Notably, coastal protection through sea walls is no longer seen as sufficient for Tuvaluans to adapt to climate change; reclamation is seen as an adaptation measure that not only prevents the intrusion of seawater but also creates further space for Tuvaluans. Previous research has illustrated how Tuvaluan perspectives on sea level rise have focused on

imaginaries of the "edge" between land and sea shaping competing "riskscapes" of climate change in Tuvalu (Yarine and Takemoto, 2017). Climate change adaption is often framed by a "seawall" mindset of protectionism. TCAP has sought to move beyond merely a notion of "protecting" the edge through sea walls but of extending the inhabitable land of Tuvalu through reclaiming the lagoon to create space for development as well as climate adaptation.

Land reclamation is framed through a temporality of urgency and creating both space and time for future adaptation to climate change. Notably, through TCAP, the Tuvaluan Government has shifted from a protectionist stance regarding existing land to an expansionist attitude through which the elevation and extension of land provides a means to adapt to climate change. In doing so, land reclamation has been presented as delaying the possibility of emigration with space-creation being synonymous with time-creation for Tuvalu, although this remains contested. Geopolitics cannot merely be reduced to a spatial spectacle; it must also be attentive to imaginaries of time and how the future construction of space can be disrupted by phenomena such as climate change. More broadly, land reclamation has been constructed as not only an adaptive response to sea level rise but also to combat climate-related threats to food security by creating more space for agriculture. In this regard, land reclamation is presented as an anticipatory measure that tackles both current and future climate threats as well as facilitating development. Given the temporality of land reclamation projects, reclaimed land plays a key role in performing climate futures that are deemed desirable by the Tuvaluan state.

6.3.3 Queen Elizabeth Park: Performances of Prefigured Climate Futures

While the aforementioned land reclamation projects remain either at the planning or construction stage, the Queen Elizabeth Park offers an insight into how these spaces can be, and in the future might be, used. Opened in 2017, the Queen Elizabeth Park in Funafuti is a 40,000m^2 piece of reclaimed land created using 115,000 m^3 of dredged sand from the lagoon (Property, 2017). Situated next to the government buildings, the Rt Honourable Doctor Sir Tomasi Puapua Convention Centre has been built on the park by the Government and was opened in August 2019. Following independence, Tuvalu retained Queen Elizabeth II as the Head of State and remains a Commonwealth Realm to this day with the park named in her honour. In contrast, the Convention centre is named after Tomasi Puapua, the second Prime Minister of Tuvalu and the longest serving Prime Minister in Tuvalu's history. The Convention Centre was built for the 50th Meeting of the Pacific Island Forum (PIF) Leaders' Summit with Tuvalu playing host to an estimated 600 delegates and over a dozen world leaders.

Whilst undertaking fieldwork, I conducted participant observation at the Summit and the Opening Ceremony of the Convention Centre (03/08/2019). Held a week before the PIF, the Opening Ceremony was combined with the Closing Ceremony of the Youth Climate Change Forum which had been held in preparation for the UN Secretary-General Climate Change Summit in New York in September 2019. By integrating the two events, the Tuvaluan Government sought to emphasise the priority of climate change within the upcoming PIF. Attended by between 400 and 500 people, guests included the Tuvaluan Cabinet, Tuvaluan MPs, diplomatic dignitaries including the Australian High Commissioner and the Taiwanese Ambassador, representatives from the Funafuti Kaupule, faith groups, contractors and members of the University of the South Pacific.

During his speech, Prime Minister Enele Sopoaga emphasised how the Conference Centre had been built on reclaimed land in the lagoon. He described how three years previously he had asked local stakeholders including the Kaupule of Funafuti, cabinet member, local planners and engineers "can we do it?" Sopoaga continued that the construction of the centre and the hosting of the Forum was "to prove our calibre – it is not a small task to host such a big gathering of Pacific Island Leaders". Gesturing towards the conference centre, he asked the audience to "witness the response to this call – as we can see. In no uncertain terms, our boys and girls, our engineers, carpenters, constructors and planners resoundingly responded in a convincing answer – yes we can." The completion of the Queen Elizabeth Park and the Convention Centre has been presented as demonstrative of the "calibre" of Tuvalu in its ability to undertake major construction projects and to undergo major climate change adaptation programmes. Sopoaga finished his speech by situating the reclamation project within Tuvalu's broader position in the international community. He described how the Queen Elizabeth Park was "testimony to what can be done in Tuvalu" emphasising how "solidarity" has enabled Tuvalu as a "sovereign independent country, albeit small, to be an active member of the international community. Tuvalu means standing together. Told to us in the beginning, we cannot go alone."

As illustrated by the Prime Minister's remarks, a key marker of the "success" of the Queen Elizabeth Park is Tuvalu's ability to act as a sovereign independent state – something which is perceived to be threatened by rising sea levels. Moreover, he highlighted Tuvalu's role as an active member of the international community not only through its strong international partnerships but also by asserting the role of Tuvalu in hosting international events. As described by Goldsmith (2015), the "big smallness" of

Tuvalu has led to it holding a significant symbolic role in climate change discourses through the actions of domestic leaders and international commentators. Although Sopoaga acknowledged the support of development partners such as Australia, New Zealand and the ROC in the construction of Conference Centre, the project, and Tuvalu's hosting of the PIF, is seen as illustrative of a proactive approach to climate adaptation asserting the agency of Tuvalu. Foreign funding was key in financing the project with India, for instance, giving the Tuvaluan Government a US$1.9 million grant to assist in the construction of the Conference Centre (Chandramohan, 2019). Using the reclaimed land as the space for the conference, the Tuvaluan Government has sought to perform the role of a state capable of holding its own on the international stage despite the challenges faced by sea level rise and climate change (Craggs and Mahony, 2014). However, the ongoing legacy of colonialism within Tuvaluan geopolitics is reflected in the divergent toponymy of the Park and the Convention Centre. Whilst the Centre is named after Tuvalu's longest serving Prime Minister, the Park is named after the British monarch who remains the sovereign of Tuvalu emphasising the complex postcolonial legacies of Tuvalu.

This narrative of assertiveness and demonstrating the capabilities of Tuvalu in relation to climate adaptation was highlighted by other research participants. When asked about Tuvalu's position on climate change, Lono, Permanent Secretary for the MFATTEL, stated:

> So, it is about action and taking action. So we build, we reclaim this. Holding the forum on reclaimed land is a statement. You know? We can't wait. We had to do something. It is important we carry this message to our partners, if you are willing

> to help. You can help us with the infrastructure development (Interview, Lono, 29/08/2019).

As asserted by Lono, the hosting of the Forum on reclaimed land is seen as a statement that illustrates the technical capacity of Tuvalu to adapt to climate change – given enough support from international partners. Moreover, there is a temporality to the Queen Elizabeth Park project with his reference to “we can’t wait” illustrating the perceived imperative of immediate action. Fletcher (2011, pp.29), asks “might a theory of performative geographies… open new avenues for thought in examining island identities?” The performance of the reclamation of the lagoon and the hosting of the conference illustrates how the Tuvaluan Government has sought to construct the atoll nation as proactive, pre-emptive and capable in light of climate change. This performance of a state able to act both domestically and internationally can be seen in the hosting of the opening ceremony, the meticulous planning of the event, and the prominence of international representatives. I recorded in my field diary:

> Significant effort went into the organisation of the opening ceremony even though the Convention Centre remained unfinished with only days before the Forum starts. Hundreds of balloons had been inflated, fabric drapes laid out over the opening plaque and over 400 chairs laid out for guests. It was quite amusing before the ceremony watching civil servants trying desperately to find scissors for the ribbon… Following the formal opening of the Convention Centre, there were numerous photographs. This included various assortments of cabinet members, MPs, local officials and contractors. Notably, the Prime Minister was keen for the Australian High Commissioner and Taiwanese Ambassador to be present and

summoned them over for photographs with the Australian High Commissioner being at the centre of the photographs (Field Diary, 02/08/2019)

Although the Convention Centre still needed significant work before the Forum begun, the Tuvaluan Government had prioritised hosting the opening ceremony. Not only were the “development partners” mentioned in Sopoaga’s speech, but they were placed centre stage – literally – during the ceremony (see Figure 4) highlighting the significance the Tuvaluan Government sees international partners playing in the securing of a future for Tuvalu.

Figure 4: Opening Ceremony of the Convention Centre, pictured the Tuvaluan Prime Minister, Cabinet and Foreign Diplomats (Author, 2019)

By hosting the conference on reclaimed land, Tuvalu placed issues of sea level rise, climate change and adaptation at the heart of the 50th PIF. Scholarship has highlighted

how subaltern actors can use conferences to create spaces which open up political space; symbolic meanings can be embedded within the staging of conferences to highlight matters of perceived importance (Craggs, 2014b, Shimazu; 2014). In hosting the conference on reclaimed land, Tuvalu aimed to use the Conference Centre as a stage to facilitate frank and substantial conversations on issues of sea level rise and climate change. Not only did this act highlight the severity of climate change but the Tuvaluan Government also sought to demonstrate its will to engage in adaptation. Shown in Figure 4, the Conference Centre is an impressive piece of architecture contrasting with most traditional Tuvaluan architecture. Its presence on the landscape was seen to be a statement of Tuvalu's capacity, and willingness, to undergo substantial efforts to adapt to climate change. Farbotko et al. (2016, pp.548) explore how Tuvaluans have highlighted that "appeals to sedentarism and performativities of tragic loss of connection to land are clearly of importance to Tuvaluans when discussing climate change risk in-situ". Through hosting the Forum on reclaimed land, the Tuvaluan Government has reinforced an ideal of active sedentarism and continued the significance of the role of land in understanding climate change risk.

Beyond the Conference Centre, the Tuvaluan Government used other spaces to reinforce the importance of land reclamation. Hospitality and welcoming performances play a key role in staging political relations (Craggs, 2014a). During the PIF, this hospitality constituted more than a welcoming performance, with architecture playing a key performative role in highlighting potential climate futures for Tuvalu. Leaders during the Forum stayed in small bungalows run by the Funafuti Lagoon Hotel and constructed on reclaimed land, intended to illustrate how land reclamation could feature in future adaptation in Tuvalu. Key individuals present at the Forum indicated Sopoaga had been

particularly keen for the Australian Prime Minister, Scott Morrison, to stay overnight. Maatia, a representative of TUCAN, the network of NGOs focusing on climate change in Tuvalu, at COP24 in Katowice, explained:

> … building the conference centre to host the Pacific Forum next year. All these constructions are built in the lagoon, they are all reclaimed land. We do hope that it will be a successful project. And if it is, then by the look of it, it could be extended. It is a lesson learned for other Pacific islands (Interview, Maatia, 06/12/2018)

Illustrative here is how the reclamation of the Queen Elizabeth Park could provide a blueprint for climate adaption not only for Tuvalu but for the other Pacific Island States. Land reclamation provides Tuvalu with an option to tackle land scarcity in the capital and to adapt to climate change, as reclaimed land can be elevated to protect coasts from rising sea levels. However, as exemplified here land reclamation also serves as a visible, material resource to enrol in performative forms of diplomacy. Anderson (2010, pp. 786) argues "futures are… made present through practices that stage an interval between the here and now and a specific future through some form of acting, role play, gaming or pretending. These are linked to imagination but use the creative capacities of embodiment more explicitly." Through the hosting of the 50th PIF Leaders' Summit on reclaimed land, the Tuvaluan Government has made present the role land reclamation could play in Tuvalu's future. The Summit prefigured a future in which Tuvaluans are not displaced by climate change but persist in-situ through adaptation, allowing the Tuvaluan Government to continue to engage in diplomacy as a sovereign state. This prefiguration

of potential adaptive futures can be explored in the pursuit of artificial islands by the Tuvaluan Government.

6.4. Artificial Islands: The limits of adaptation

Land reclamation can be seen as a means for atoll states to buy time and space in the context of climate change. However, narratives of inundation and sinking have also seen climate change constructed as an existential threat in which land reclamation may not suffice. Consequently, Pacific Islanders have turned to other large-scale projects as potential solutions. Whilst land reclamation projects focus on extending existing land, atoll governments are increasingly turning towards the construction of artificial islands to create new land. Maatia described how:

> [adaptation] is all about a matter of survival for us, people in the Pacific and low-lying atolls. I know coming from a country…knowing very well that we have very limited resources, technology and capacity. We are all limited especially in terms of human resources and capacity. We are, barely left with very minimal options… It is all about survival (Interview, Maatia, 06/12/2018)

Here, Maatia highlights the limited capability of atoll nations to adapt to climate change thereby reducing the range of adaptive option available for Tuvaluans. Hence, the priority of Tuvaluans is seen as a baseline of "survival". Nightingale (2017; pp.12) argues "if power and politics reshape the purpose of adaptation efforts, then adaptation becomes about adjusting to entangled socio-political contestations, biophysical change, livelihood desires, struggles for authority to govern change, and desires for social and political recognition by both those promoting programs and recipients of them". Maatia's response indicates how the purpose of adaptation in Tuvalu is presented as "survival" as

opposed to "adjusting", highlighting the perceived magnitude of the task. Survival of individuals and people are conflated with the survival of the Tuvaluan state itself.

Land reclamation, whilst viewed as desirable, is understood to only temporarily extend the duration of the habitability of atoll states in regard to rising sea levels. Ultimately, the ongoing increase in sea level rise is predicted to overcome this adaptation. According to the IPCC, "technical limits to hard protection are expected to be reached under high emission scenarios (RCP8.5) beyond 2100 (high confidence)" (IPCC, 2019, pp. 4-6). Sentiments of a "limit" to adaptation are echoed by some diplomats and consultants within the region. Tony, a representative from PIDF, argued **"i**f things do not change, and don't change drastically, there is nothing you can do to adapt" (Interview, Tony, 09/07/2018). Whilst Tony does not describe future adaptation as currently impossible, he highlights the pressing urgency of contemporary action to ensure that adaptation is possible. Continuing environmental degradation and sea level rise will make adaptation increasingly technically difficult, expensive to finance and politically contentious. Ultimately, anthropogenic climate change and sea level rise are presented as blurring the categories of adaptation and impacts. In their 2019 Special Report on the Ocean and Cryosphere in a Changing Climate, the IPCC reported:

> When taken to the extreme, retreat could lead to the elimination of risk in-situ, for example in the case of the relocation of the full population of urban atoll islands either elsewhere in the country (e.g., on another island) or abroad (i.e., international migration). This is an extreme situation where it is hard to distinguish whether the measure is an impact of SLR (and ocean change more

> broadly), for example, displacement, or an adaptation solution (IPCC, 2019c, pp. 4-85).

Atoll nations are constructed as extreme spaces in which the boundary between impacts and adaptation becomes contested. Consequently, with adaptation being constructed as having a "technical limit" and atolls as "sinking islands" exposed to the extremities of sea level rise, fantastical and whimsical futures are being contemplated for atoll nations both by domestic and international actors. Floating or artificial islands are being suggested, considered and contemplated as potential "solutions" to sea level rise for atolls. Projects such as the Horizon 2020 Space@Sea project aim to provide affordable and flexible floating islands as a solution for people exposed to the risk of flooding due to sea level rise (Flikkema and Waals, 2019). Artificial islands are deemed desirable solutions as they would allow the continuity of state sovereignty over a demarcated territory with the in-situ population protected from future sea level rise (Doig, 2016). A common thread connects land reclamation and the construction of artificial islands in that it shows the agency of small island states and their willingness to "fight" climate change. Taukelina, a senior Funafuti Kaupule official, explained:

> The policy of the current government is that we will not move away, we won't be evacuated from Tuvalu. We will stay. We will try and fight the sea level rise. On the strength of that, we have this island, we are trying to build up our island, reclaim the lagoon and on the southern side of the atoll there is a small pocket in the lagoon there. We have approached the UN about it, at COP23 in Bonn 2017, we went and put our case there. We want to build an island (Interview, Taukelina, 28/08/2019)

Taukelina's sentiments here echo the key findings of Farbotko et al. (2016), who argue sedentarism has emerged in Tuvalu as a key geopolitical identity in response to discourses of Migration with Dignity, asking "will the strong sense of sedentarism and rootedness give rise to social and political change? (2016, pp. 548)". Whilst this sense of rootedness described by Farbotko et al. is manifest in the planned construction of artificial islands, it does not encapsulate the sense of sedentarism. As opposed to the inaction inferred by sedentarism, these projects suggest an active sedentarism in which the Kaupule has actively sought to ensure the ability of its people to remain. Taukelina's reference to a "small pocket" refers to the planned artificial island of "Falesuiti Ecological Island", which has been developed by Tuvalu Overview NGO and the Funafuti Kaupule and was showcased at COP23. Tuvalu Overview is a Japanese NGO which seeks to raise awareness of Tuvalu's vulnerability to climate change and to find "solutions" to global warming (Tuvalu Overview, 2014). Under the plans, anthropogenic sediment dredging from the lagoon would be used to accelerate the natural accumulation of sediment in the Funafara area located in the south of Funafuti atoll (see Figure 5), thereby creating an "artificial" island (Tuvalu Overview, 2014).

Figure 5: Proposed location for Falesuiti Ecological Island in southern Funafuti (Author, 2019)

The planned artificial island is framed as working with "natural" processes. Taukelina argued:

> Yeah well, the idea was already there. I mean, when we were young that lagoon was very deep. Very deep. Now boats can hardly go inside, it is all silted up. A lot of sand from the ocean side has piled up on the other side of the lagoon… That has all filled up. So, in a hundred years' time, it will fill up to above the sea level. It is there. Staring us in the face… It doesn't take that much to fill it up, there is a lot of sand in this lagoon all over the lagoon. (Interview, Taukelina, 28/08/2019)

Justification for the construction of the artificial island rests on two premises. Firstly, it draws on traditional knowledge and understandings of shifting sands within the atoll.

Secondly, it reinforces contemporary discourses in environmental policy that prioritise working with natural processes. Falesuiti Island has been constructed as an adaptation project assisted by nature as opposed to an artificial island. Despite this, other participants highlighted the potential environmental impacts of the project. Himiona, a senior representative of the Funafuti Kaupule, described how:

> It [Falesuiti Ecological Island] might be damaging to the environment in some ways, but I hope we can minimise that. That is why we need some very good professionals. Marine biologists and engineers to come and do the marine impact assessments before we put up our infrastructure. That is what we are looking at. (Himiona, Interview, 08/08/2019)

Although there is an acknowledgement of the potential environmental degradation, this is not presented as a barrier to the project. Instead, experts such as marine biologists and engineers are enrolled as finding "solutions" to these issues. Given the scale of the plans, these environmental impacts may be significant. Imagined as supporting a population of 5,000 people, the island is planned to include an international runway, port facilities, water treatment facilities as well as residential areas and tourist facilities (Tuvalu Overview, 2014). Taukelina asserted that:

> It is very attractive (*pauses).* 10m high. It is five squared kilometres of land, we put the airport there. Solar farm and hydro on the side. Villages. It could fit all the islands on there. So, the idea of being a sanctuary for Tuvaluans. If and when, the sea level really threatens. Even if it gets up to a metre, we are still 9 metres up. We are still safe. And it can be turned into agriculture, fisheries processing and all

> those things. Even hotels. To help pay for the $200 million job (Interview, Taukelina, 28/08/2019)

In their consideration of artificial islands, Jackson and della Dora (2009; pp. 2097) argue that “island utopias today are explicit both in their efforts to territorialise themselves as parts of wider global complexes, and in their promises to bring a future promise to fruition. Such fantasies are not without geopolitical intent.” Embedded within the promise of the artificial island, is a utopian image of “sanctuary” through its elevation and the provisions of livelihoods through agricultural projects, energy projects and transport infrastructure (see Figure 6). Future sea levels are constructed as a threat to Tuvalu’s future. Steinberg and Peters (2015) attest that the difficulties associated with observing and knowing the ocean make it difficult to assert geopolitical control, these difficulties are only exacerbated when one adds the temporal element of future sea level rises. Envisioned as ten metres high, an elevation that far exceeds even the most pessimistic projections of sea level rise (IPCC, 2019a), the island is imagined as removing any doubt over the future habitability of Tuvalu thus reasserting the authority of the state in the ongoing construction of territory. In order to overcome the uncertainty of future sea level rise, excessive height has been mobilised in a specific form of vertical geopolitics to illustrate the capacity of Tuvaluans to adapt to climate change through the construction of artificial islands (Elden, 2013). Himiona, another senior representative of the Funafuti Kaupule, when discussing the island, argued:

> We have to work. It is simple and sensible. No? If you know something is risky that will affect your life, okay? Directly. You have to do something; you have to do something to protect yourself. There are many means to do that. Why don’t we

> build up? If that is the case to prolong our lives on the island or in Tuvalu. Of course, there are rising sea levels. We have proved that with the scientific evidence. Why don't we build? … Doing something good, something that will protect the people from what is going on. So, we have to go up, we have to go up (Interview, Himiona, 08/08/2019)

Firstly, Himiona reinforces the importance of the verticality of the Falesuiti Ecological Island through his repetition of "we have to go up" to alleviate concerns regarding rising sea levels. Secondly, he asserts that there is a responsibility on the Funafuti Kaupule to provide an adaptation strategy to the population through the construction of the artificial island. His onus on building illustrates that the artificial island is an action through which the Kaupule can assertively tackle climate change. Given the immense scale of the project, the plans can seem fantastical and somewhat infeasible. However, as illustrated in Figure 6, comparisons to current locations are intended to lend credibility to the project. Labels including "Port of Apia", "Resort hotels same as those in Honolulu" and "Solar energy absorber system in Nevada desert" can be seen on the artist's impression. References to cities in the Pacific such as Apia and Honolulu bridge the gap between this imagined future of Tuvalu and present urban life in the Pacific Islands. Later in the report, Dubai is held as an example of a locality where sand pumping has been used to develop marine resorts with images of construction, the Palm and luxury hotels (Tuvalu Overview, 2014). The perceived feasibility of this island is increased through references to contemporary places.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at: TUVALU OVERVIEW, 2014. *NPO Tuvalu Overview* [Online] Available at: http://www.tuvalu-overview.tv/eng/about/index.html [Accessed 27 January 2020]

Similarities exist in the rationale behind “Resilient Kiribati” and the construction of Falesuiti Islands. Development has been enrolled within climate adaptation to secure the future of the nation both in terms of climate change and economic prosperity. Moreover, tourism has also been used to illustrate the potential sustainability of this mega-project. Despite only 0.2% of tourists in the Pacific region travelling to Tuvalu and several major barriers to tourism development including remoteness, smallness, lack of investment and infrastructure (Prideaux and McNamara, 2013; pp.586), the construction of hotels is

highlighted as a means to help pay for the construction.[20] Future tourist industries are imagined to be focused on exploiting marine resources, Tuvalu as an “off the beaten track” destination, and voyeuristic tourism through a fetishization of Tuvalu as a “last chance to see” experience (Farbotko 2010a; Prideaux and McNamara; 2013). With an estimated 2,000 arrivals in 2017, Tuvalu is reported by some outlets as the least visited state on the planet (UNWTO, 2018; Telegraph, 2019), thus making it difficult to see how future tourist arrivals could raise significant revenue to fund climate adaptation. Despite these concerns, Tuvaluans remain enthusiastic for the island with emotion used to justify the project. Taukelina, when asked about Tuvalu’s future, replied:

> I mean, it will be very sad if it sinks. That is why we want to do our [Falesuiti] Ecological Island project. That is the justification for that, if the island sinks, we need to do something about it (Interview, Taukelina, 28/08/2019)

Here, Taukelina reproduces the narrative of Tuvalu as a “sinking island” expressing sorrow at this potential scenario. Falesuiti is viewed as a form of concrete action in response to this eventuality. Taukelina continued:

> There won’t be any more Tuvalu. They’ll [Tuvaluans] have to take other passports of the hosting country. They will be like their brothers and sisters who are already in Auckland or Fiji. So, they have lost that good thing about their life, their identity. Without that identity, we will lose our culture. We lose everything. Our language will be no more. At the state level our 200-mile zone EEZ will be owned

[20] Tourism across the Pacific has been decimated due to the COVID-19 pandemic with both Tuvalu and Kiribati suspending all flights and passenger vessels in March 2020. Kiribati has announced that its borders will remain closed to all foreign arrivals until the end of 2020 (RNZ, 2020b). Similarly, Tuvalu has suspended all flights and passenger vessels indefinitely with repatriation of citizens only beginning in August 2020, with extensive quarantining procedures in place (Kitara and Farbotko, 2020).

> by somebody. Somebody else will own it. There is no more state of Tuvalu… (Interview, Taukelina, 28/08/2019)

The potential loss of the islands of Tuvalu is seen as a distinct threat to both the statehood of sovereignty and the Tuvaluan nation. Artificial islands are presented as a means to preserve national identity and the sovereign rights of Tuvalu. Rising sea levels can be viewed as a vital territorial conjuncture (Smith, 2013). Drawing on Johnson-Hanks' (2002) vital conjuncture, Smith (2013, pp. 573) argues that a vital territorial conjuncture describes "a point at which the territorial future is understood to be at risk". Understandings of atoll nations as "sinking islands" has created a moment in which the future of Tuvalu is fluid, uncertain and in flux. Artificial islands are being used to stabilise these future territorial imaginaries by replicating contemporary understandings of the state. Questions remain, however, over whether atoll states would indeed retain their current international rights and sovereignty through the construction of artificial islands. Under the UN Convention on the Law of the Sea, there is a clear distinction made between islands and artificial islands, installations and structures – with artificial islands lacking any entitlement to a maritime zone (Beckman, 2013). Nevertheless, it is worth noting Tuvalu's claim for recognition would be grounded within a historic claim to territorial control of the surrounding water. Menefee (1994, pp. 111) argues "if in the future such states are to rise with their flags from the deep it seems likely they will be either secessionist slivers of larger entities, or else catspaws, sponsored by nations with ulterior motives". Artificial islands would be used to argue the continuity of the Tuvaluan state as opposed to a means to extend the claim of their existing territorial waters. However, the securing of funding to construct this artificial island has proven difficult. Taukelina, a senior official in the Funafuti Kaupule, argued:

> You have to look to the World Bank. Their website, they have a policy called "no regrets investment" and that is exactly what most governments contributing to the World Bank follow. That policy is simply stating that you don't invest in projects that don't have a track record of tackling sea level rise or storms. So, we tested that. We went to the Japanese Embassy and asked them about our plan to upgrade or reclaim the lagoon over there in Funafala…. they said, unfortunately they are not into new land. They just protect existing lands which confirms the World Bank, "no regrets" policy (Interview, Taukelina, 28/08/2019).

Large-scale adaptation projects, such as the construction of artificial islands, are deemed too risky by international funding bodies and donors. Consequently, small island state politicians have struggled to gain international support for such a large-scale project. Initial planning has indicated the high cost of the project. Himiona, a senior representative of the Funafuti Kaupule, explained:

> We are looking at a huge amount of money. It will cost over $300 million, but with the 16 square kilometres option, that could be over $500 million… We have been talking about it for about five years. Hoping that soon, one nation or one country will come and assist us with that amount of money (Interview, Himiona, 08/08/2019).

Despite initial scoping, the project appears to remain beyond the reach of any individual donor. Notwithstanding this, Tuvalu's Prime Minister, Kausea Natano, has reinforced the Kaupule's call for Japanese aid with a public plea for assistance from the Japanese Government in October 2019 (RNZ, 2019b). Nevertheless, there have been clear limits to this openness to external assistance. In late 2019, the Tuvaluan Government declined an

offer from Chinese firms to build artificial islands citing solidarity with the ROC (BBC, 2019). Despite recent changes in the position of the Solomon Islands and Kiribati, Tuvalu continues to recognise, and support, Taiwanese claim to statehood and thus refused to recognise the PRC in order to access finance. This raises interesting questions around the role of solidarity and domestic politics within climate geopolitics, as support for the ROC is widespread among the Tuvaluan population with the Ambassador a popular figure in Funafuti. These speculative climate futures can seem somewhat fantastical and beyond the realm of possibility for projects funded through bilateral or multilateral means. However, they open alternative futures for Tuvalu. Kanaloa, a Tuvaluan climate consultant working in the country, argued:

> Okay, people may say it is bleak. I say that we have a future here. We have a future here in Tuvalu. There will be more creative and innovative adaptation ideas that we may put in place. Who knows? We may end up filling the whole lagoon here so that people from the outer islands can come and settle here. Or we may go to Vaitupu which is a huge reef island. That can accommodate us. So, I do not think this is the end of the world for us. We have some very creative and innovative ideas that we may put in place. Providing we have access to climate finance (Interview, Kanaloa, 20/08/2019).

Although their construction may remain unlikely, the creative and innovative nature of these artificial islands is seen as indicative of novel adaptation forms which may not have been considered previously. This ingenuity is presented in opposition to the "bleak" futures propagated by sinking island narratives. As alluded to by Kanaloa, Falesuiti

Ecological Island has been constructed as a potential adaptive solution for Tuvaluans from the outer islands. Taukelina, meanwhile argued that:

> … in 100 years' time, we may not be able to be here. That is why we want to quicken up that process. So that we can be here in hundred years' time. Our brothers and sisters on the outer islands can also come here. If we can do this, if we can do this land reclamation then we can replicate it in other islands. In Nukufetau, there is a lot of potential for that too. In Nukufetau. Nui, Nukulaelae, Nanumea… (Interview, Taukelina, 28/08/2019)

It remains to be seen whether technocentric projects such as artificial islands are a desirable outcome for the populations of Tuvalu and Kiribati. Squire et al. (2018), when discussing domes as architectural solutions to hostile environments in an online piece argue that a "reliance on sophisticated technologies to engineer specific ecologies and conditions can, however, leave these spaces smacking of technofetishism and anti-democratic tendencies". There are resonances with how domes are conceptualised as a technology to support societies with the discussion of artificial islands. To what degree does the population of Tuvalu wish to resettle on artificial islands? Given the complexity of land ownership in Polynesia, and the significance of island ties, how would land claims be distributed? Whilst initially led by the Funafuti Kaupule, ideas of artificial islands have been recently promoted by the newly elected Tuvaluan Government. Additionally, discussion of artificial islands often replicates discourses surrounding land reclamation in terms of closing down other alternative futures. Yarina and Takemoto (2017; pp. 487) argue that "notably, the single-minded focus on fortifying the Tuvaluan coast eclipses the possibility of projects that hedge against future displacement, through land purchases,

political agreements, or diasporic architectures”. Fortification is increasingly being supplanted by reclamation and construction of artificial islands as the perceived future of Tuvalu.

6.5. Conclusion

This chapter has illustrated how scholars of critical geopolitics can shed light on climate change adaptation projects. Not only does it rest upon states in the Global South navigating the architecture of international funding mechanisms and leveraging bilateral relationships but also upon geopolitical imaginaries surrounding the future of the state. There are clear temporalities to the adaptation projects being implemented and planned in Tuvalu and Kiribati. Narratives of resilience seek to build upon the past histories of Pacific Islanders responding to environmental changes moving beyond neoliberal adaptive strategies of the individual. The uncertainties of future climate change are alleviated by the promise to maintain current standards of living through echoing past responses.

Whilst there is growing pressure for labour mobility opportunities from the i-Kiribati population, Migration with Dignity has been resisted as a potential adaptive measure to climate change. In order to understand this, it is crucial to consider the intersection of land, people and time. Labour mobility is understood as ephemeral, temporary and reversible thus allowing the possibility of i-Kiribati migrants to return to their land. In contrast, Migration with Dignity was seen as “giving up” on Kiribati thus becoming a permanent form of migration. Given the cultural, religious and political role of land within Melanesian culture, with people and land understood synonymously through the i-

Kiribati word of “aba”, this rupture between land and people was deemed unacceptable (Hermann, 2017; Hermann and Kempf, 2017). Anderson (2010, pp. 792) argues that “anticipatory action is a key means through which life in contemporary liberal democracies is secured, conducted, disciplined and normalized”. Within i-Kiribati culture, the life of the people cannot be separated from the land and thus anticipatory action focusing on the mobility of bodies but neglecting the preservation of land was not viewed as a form of adaptation.

Land is at the core of adaptation in both Kiribati and Tuvalu. Large-scale adaptation projects such as land reclamation are seen as delaying, or at least slowing, the impacts of climate change thereby “buying time” for atolls to pursue greater global mitigation or alternative adaptation pathways. As attested by Klinke in his consideration of critical geopolitics and chronopolitics, (2013, pp.685) “geopolitical writing does not merely construct the spaces of world politics, but it also maps understandings of time”. Land reclamation and artificial islands serve as chronopolitical devices which disrupt imaginaries of sinking islands. Imaginaries of ongoing future habitation of atoll nations serve to challenge existing geopolitical representations of atolls. Klinke (2013, pp.685) argues “chronopolitics does denote how time is used to conserve or challenge (geopolitical) order”. By resisting this order, massive hard engineering projects provide island communities with an opportunity to assert their own agency against the hegemonic representations of inevitable inundation. In their discussion of voluntary immobility, Farbotko and McMichael (2019) argue there are three proposed responses to rising sea levels: protection, accommodation and retreat. This chapter has demonstrated the emergence of a fourth response, advancement. Through land reclamation, the act of

advancing the landmass into the ocean performs an active sedentarism that creates an alternative possible geopolitical future. However, it is worth noting that these hard-engineering projects do not provide a permanent solution, the estimated lifespan of TCAP is 40 years, after which political decisions will need to be made on the future of adaptation (GCF, 2020b).

Nevertheless, the technocentric futures imagined in the pursuit of megaprojects such as the construction of artificial islands can often seem to verge on the fantastical. Although normalised through comparative framing with other places like Dubai, Honolulu and Apia, the scale of these projects seems to be beyond the current financial and technical capabilities of atoll states. If so, why are elites expending diplomatic, political and economic capital on pursuing these projects which are unlikely to materialise? In their consideration of artificial islands, Jackson and della Dora (2009, pp.2087) argue “a topographic, performative icon for future geographical imaginaries, the artificial island is rapidly becoming both a symbol and a material index of globalising iconicity, and thus worthy of attention for geographers”. Artificial islands have become symbolic imagined spaces which illustrate the magnitude of the potential impact of climate change for atoll nations. Moreover, these projects capture international attention and generate significant media attention and thus signify the scale of adaptation that may be necessary for atoll nations to persist in a future dominated by unabated climate change. Webber (2013, pp.2730), in relation to climate change adaptation in Kiribati, argues that “vulnerability is not simply a ‘condition’ but is constantly reproduced, reinscribed on, and relived be people and places.” Through the propagation of artificial islands as an adaptive strategy, Tuvaluan elites are contributing to a national performance of a state facing an

existential threat. Many of the logics underpinning artificial islands as a solution to the climate crisis resonate with contemporary discussions around seasteading. Steinberg et al. (2012) explore how ideas around ocean spaces, the limits of sovereignty and the liberating role of technology are embedded in the idea of seasteading. Artificial islands provide a promise for islanders to retain sovereign control over their ocean territory through a reproduction of the Westphalian state in a form of active sedentarism. In doing so, the ambiguities and uncertainties around sea level rise, sinking islands and potential migration become resolved absolutely by the magnitude of the proposed solution.

Chapter 7: Negotiating Alternative Futures: Emotions, Bodies and the Visual in Climate Diplomacy

7.1 Introduction

> *I think for Tuvalu, we will remain strong on our foreign policy on climate change. I think "Save Tuvalu, Save the World" will continue. Because, we do not want to leave home. The bottom line is we want to live here, this is our home and we need to promote that in every aspect of our foreign policy. Sometimes they say oh you have to move to New Zealand. For what? What are we going to do in New Zealand or Australia? That is a very defeatist approach. Why? Because climate change is something that is not of our doing. Because of that we believe the world has a responsibility to work with us.*
>
> *Lono, the Permanent Secretary of the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (Interview, 29/08/2019).*

Given the multi-faceted challenges climate change poses to atoll states, it dominates the foreign policy of both Tuvalu and Kiribati as politicians, diplomats and communities seek to avoid future displacement and inundation. Inevitable displacement, as argued by Lono, is seen as defeatist in nature and disregards strong cultural and emotional ties to land and home. Both Tuvalu and Kiribati have advocated for more ambitious global mitigation alongside increased access to adaptation funding. The ability of both states to secure significant international climate finance is a necessity for the anticipatory policies of large-scale hard-engineering adaption. As a result, their leaders and diplomats have been among the most outspoken in forums of international climate diplomacy.

In this chapter, I examine the practices and processes of Tuvalu and Kiribati's climate diplomacy by which their politicians and diplomats seek to assert agency over their own futures. Broadly, climate diplomacy is understood as the multilateral negotiations that seeks to discuss how the costs of mitigation, adaptation and finance should be equitably distributed between the Global South and the Global North (Light, 2017). In order to better understand the practices of climate diplomacy, I argue greater attention must be paid to the relationship between emotions, bodies and performance.

Climate change is an emotive issue, with the rejection of displacement and desire to remain in-situ rooted in emotion. The intangibility of climate change means diplomatic efforts to address it must seek to make climate futures visible. In doing so, performances, bodies and emotions are enrolled to communicate, and resist, the impacts of climate change. Given how visual imaginaries of Tuvalu and Kiribati as "sinking islands", dominate international perceptions of these states, Tuvalu and Kiribati provide ideal spaces to unpack the role of the visual component of these performances and how climate change is made visible to diplomacy. Theoretically, this chapter contributes to work on the geographies of emotion, performance and the body in relation to diplomacy. This focus on the body as an emotive site within diplomacy sheds light on how state actors perform particular futures in certain spaces. As argued by Fall (2020), states are emergent, with their diplomacy serving as performance through which they constitute their own identity.

Although starting to be considered within diplomacy scholarship (e.g. Fall, 2020; Hall, 2015; Craggs, 2014b), analysis of the relationship between emotions, performance and the body remain largely absent from climate diplomacy scholarship bar a few exceptions (e.g. Farbotko and McGregor, 2010). Through a consideration of the 2019 PIF in Funafuti

and the visit of UN Secretary-General António Guterres to Tuvalu in May 2019[21], I unpack how the visual component of this relationship and how climate spectacles are constructed within diplomacy. More broadly, in this chapter I seek to expand the repertoire of emotions considered in diplomacy through a consideration of humiliation and dignity.

Drawing upon the relationship between emotions, bodies and performance in diplomacy, this chapter questions how different geographies of salvation have been constructed within Tuvalu and Kiribati's climate diplomacy. I explore how Tuvaluan climate diplomacy has constructed a geography of salvation that necessitates the "saving" of Tuvalu. Farbotko (2010b) has argued that Tuvalu's international identity is dominated by climate change with the state acting as a canary in the coalmine. There are problematic moral geographies within the environmentalist narratives of Tuvalu, in which its ultimate disappearance serves as an absolute truth to the urgency of climate change. However, I examine how Tuvaluan diplomacy has co-opted and disrupted these moral geographies through the propagation of alternative imaginaries. Within this chapter I also consider how faith has been mobilised to construct an alternative geography of salvation within Kiribati's climate diplomacy. Christian theology has been used to both reinforce and contest narratives of inundation, shedding light on the interaction of faith and science in the context of climate geopolitics. Within this chapter, I will explore how these different geographies of salvation have been mobilised within Tuvaluan and i-Kiribati climate diplomacy to challenge hegemonic discourses of victimhood.

[21] The first, and only, visit of a UN Secretary-General to Tuvalu

In this chapter I advocate for the greater use of ethnographic technique in research on the geopolitics of climate change. As reflected upon in Chapter 3, there are numerous differences between COP and the PIF. As a large international conference, the UNFCCC is attended by tens of thousands of delegates whilst the PIF is a much smaller event, typically attended by just a few hundred participants mainly from the PIF member states. Although the Forum covers a range of issues beyond climate change, recent meetings have been dominated by climate. With Tuvalu hosting the 50th PIF in 2019, the event constituted the largest diplomatic event in Tuvaluan history with over 600 delegates. Drawing upon participant observation at the 2019 PIF and COP24 in Katowice, alongside elite interviews, I consider climate diplomacy in the context of contemporary debates in political geography on emotions, visuality and the body.

7.2 Climate Change and Emotional Diplomacy

Geopolitics is traditionally associated with deliberative, calculated and methodical modes of thinking and practice. Yet despite this supposed rationality, it has always been laden with emotions. For instance, one could reflect on Nikita Khrushchev's angry outburst at the UN General Assembly in 1960 when he banged his shoe on his desk. Although emotions play a key part in understandings and experiences of geopolitics, they are often overlooked within scholarship. Jones and Clark (2019, pp. 1262) argue "emotions are crucial to geographies of performance, yet our understanding of their role in diplomacy is not well developed despite many calls, especially from feminist geographers, for greater attention to the study of emotional geopolitics." Within diplomacy studies, Hall argues that emotional diplomacy constitutes a "coordinated state-level behaviour that explicitly and officially projects the image of a particular emotional response towards other states"

(2015, pp.2). Whilst an important contribution, Hall's analysis remains surprisingly disembodied and is inattentive to individual emotional responses. The role of emotions cannot be merely viewed within a realist framework in which they serve a utilitarian purpose of mobilising support from other states or publics but also a key influence on the practice and perceptions of diplomats.

Although climate diplomacy has been discussed within several disciplines including economics (e.g. DeCanio and Fremstad, 2013), political science (e.g. Dimitrov, 2016) and international relations (e.g. Burke et al., 2016), emotion is absent within discussion. Farbotko and McGregor's (2010) article on Tuvaluan diplomacy at COP15 is a notable exception in its exploration of emotion, considering the role of sadness and discomfort as Tuvalu's chief negotiator wept while giving a speech which meant that "momentarily, apparently stable boundaries established through convention and procedure - those that marginalise emotion and construct climate change negotiations within 'rational' spaces - had been unsettled" (pp. 162). They "call for greater attention to be given to understanding how climate change science and politics are enmeshed with emotion. In what ways are emotional responses to climate change science articulated and embodied?" (2010, pp. 164) before suggesting "to neglect the role of emotion is to risk an incomplete understanding of, and possibilities, within climate change politics". Building upon this paper, I argue more emotions should be explored within scholarship to critique the power relations of climate diplomacy. I extend the analysis to consider other bodies, namely that of Tuvaluan children and the UN Secretary-General, to unpack the temporality and spatiality of bodies within diplomacy.

7.2.1. Sinking Islands: The Geopolitics of Humiliation

Emotions are embedded within the spatial imaginaries, metaphors and logics of climate change. The material threat of the rising ocean, and its disruption of the boundary between land and sea, has led to troubling predictions of turbulent futures for atolls and their inhabitants. Understandably, predictions of potential inundation induce emotional responses. When asked about sea level rise, Maatia, a representative of TUCAN, a network of NGOs in Tuvalu working on climate change, at COP24, argued:

> Tuvalu is not really sinking eh? It is a matter that we are always debating, whether or not this will become a reality. But I think the rising sea level is the most important narrative, we should *(pauses),* the world should mourn it. It is very damaging if you say Tuvalu is sinking and it becomes a laughingstock for the countries that really play down our sovereignty (Interview, Maatia, 06/12/2018)

Although rising sea levels are constructed as a local threat to Tuvalu, Maatia stresses the significance of understanding sea level rise as a global phenomenon which the "world should mourn". Mourning deploys an emotional rationale; eluding to ideas of sadness and despair regarding sea level thereby transforming Tuvalu into an object of grief. Thus, Tuvalu becomes a key site for understanding, in a simultaneously emotional but also detached manner, the negative impacts of climate change. Conventions of respect are associated with mourning, however, Maatia implies these are incompatible with the sinking narrative.

"Sinking" is not only indicative of submergence beneath the ocean but it also has connotations of emotional detachment; a sinking feeling indicates a certain degree of uneasiness or apprehension. Evoking ideas of despair, the sinking metaphor creates a future in which the Tuvaluan people are helpless to tackle the environmental changes

affecting their islands. As discussed in Chapter 5, sinking is seen as foreclosing alternative political futures and Maatia consequently suggests that Tuvalu has been ridiculed by other states. Maatia presents these representations as a humiliation through which Tuvalu becomes a “laughingstock”. Chaturvedi and Doyle (2010, pp. 219), discussing Bangladesh, argue there is a “geopolitics of humiliation to which those displaced in Bangladesh are increasingly subjected, both discursively and on the ground”. Similarly, to Bangladesh, Tuvalu is also subject to these geopolitics of humiliation through the construction of it as a sinking space. Humiliation describes the feeling of being ashamed, having lost the respect of others. Whilst embarrassment is brought upon one’s self, humiliation is forced upon one. As show in Chapter 5, these geopolitics of humiliation have been promoted by far-right publications in the United States and Australia, enrolling contemporary geomorphological research to question the credibility of Tuvaluan climate diplomacy. “Sinking Islands” creates a territorial conjuncture in which Tuvalu’s future sovereignty is seen as in question thus undermining their contemporary diplomacy in a manner that is deemed humiliating. This future is forced upon Tuvalu due to the actions of others.

It was notable through participant observation and conversations with Tuvaluan diplomats at both COP24 and the PIF that there is a strong sense of pride in their status as an independent sovereign state. Given Tuvalu’s colonial history this is unsurprising. The Micronesian Gilbert Islands (modern-day Kiribati) and the Polynesian Ellice Islands (modern-day Tuvalu) were grouped together for the convenience of colonial administration. Following a referendum in 1975, Tuvalu opted to revert to its traditional name and became independent in 1978 (McQuarrie, 1994). Climate change is viewed not just as an environmental disaster but also as a threat to Tuvaluan identity and

sovereignty. Sinking is seen as a humiliating framing, as it challenges the myth of sovereign equity between states assumed under the Westphalian system. References to "laughingstock" reinforce the perceived power inequality between Tuvalu and larger states responsible for emissions. As an object of ridicule, Tuvalu is denied agency reinforcing notions of the helplessness of small islands to stop climate change.

This geopolitics of humiliation can be unpacked through an examination of Australian-Tuvaluan relations. As a large donor and regional power, Australia's relationship with the Pacific is perceived as paternalistic but relations have become strained over Australia's inaction on climate change and dominating behaviour in the PIF over the last decade (Fry and Tarte, 2015a). Australian concerns over PRC's increasingly assertive presence in the Pacific has led to a shift in its foreign policy (Baker, 2015). Announced in 2016, the 'Pacific Step Up' according to DFAT (2020) "builds on over half a century of sustained engagement, responding to the region's priorities by further enhancing our commitments. Our future is deeply intertwined with that of our Pacific family, and we have an abiding interest in the sovereignty, stability, security and prosperity of our region". Tuvalu has featured as part of this "Pacific Step Up" with Australia opening a High Commission in Funafuti in 2019. Despite this, Australia's efforts to bring about closer relations with Tuvalu remain restricted by the issue of climate change. Australia's domestic and international climate policies are perceived by Tuvaluans through a geopolitics of humiliation. Teuleala, a Tuvaluan consultant on climate change, agriculture and social development, discussing Tuvalu's hosting of the PIF, stated:

> It is important for the other leaders to see us and really witness what the problems are that we have…I think one or two years ago, one Australian politician

> was making fun about Tuvalu… We are just next door to him and still he has to make fun about it. About us being sunk. So, I hope that through coming here that they can really feel what it is like to be in this place (Interview, Teuleala, 22/07/2019)

Creating an opportunity for others to "witness" climate change is presented as a strong justification for Tuvalu hosting the PIF. In recent years, Australian politicians have been perceived as insensitive towards the Pacific and climate change. In 2015, then Australian immigration minister, Peter Dutton was caught on microphone joking with then Prime Minister Tony Abbott about rising sea levels in the Pacific. During a roundtable that was running late, Abbott said the recent PIF in Port Moresby had not run to schedule to which Dutton replied, "time doesn't mean anything when you're, you know, about to have water lapping at your door" (Medhora, 2015). Similar derogatory comments were made about Kiribati in 2018. Environment Minister Melissa Price told former President of Kiribati Tong at a dinner, "I know why you're here. It is for the cash. For the Pacific, it is always about the cash. I have my cheque book here. How much do you want?" (Crowe, 2018). Humour at the expense of the Pacific Islands, alongside Australia's domestic coal industry and inaction on climate change, has been perceived as a humiliating to Tuvalu by marginalising their importance and ignoring their vulnerability to sea level rise. As highlighted by Teuleala, given Australia's physical proximity, and symbolic closeness through the "Step Up", these have frustrated Tuvaluans. Echoing with the discussion in Chapter 5 around the geomorphological futures of the Tuvaluan atolls, these comments transform it into an island of ridicule reinforcing unequal power relations. Although interviewed before the Forum, Teuleala's comments preempted an incident that occurred during the PIF. The Australian and Tuvaluan Prime Ministers repeatedly clashed

over climate change during a twelve-hour session, with talks almost collapsing. I noted in my field diary:

> Leaders were due to arrive for dinner and the Fatele at 7 pm but arrived after 10pm. Most of the PIF leaders were present but not the Fijian PM, New Zealand PM or Australian PM. Australia has been holding up proceeding with the declaration. Last year in Nauru it was after 10.30 pm!
>
> At 11.30 pm I bumped into a senior Tuvaluan diplomat. Scott Morrison is apparently a real bully in negotiations, trying to pressurise and get his way. All references to net-zero by mid-century are gone and the loss and damage paragraph. The Tuvaluan PM held his ground, pushing for votes on certain issues with Morrison saying, “no no no, let’s negotiate”. Morrison also threatened to withhold climate funding. Real frustration among the Tuvaluan officials towards Australia (Field Diary, 15/08/19)

I continue:

> Comments made by the Australian Deputy PM have caused quite a stir. He has been very dismissive towards the Pacific Islands with an off-hand comment about fruit picking and climate change. Given Morrison’s attitude yesterday, Tuvaluan diplomats are furious (Field Diary, 17/08/2019)

On August 16th, 2019, Deputy Prime Minister Michael McCormack said:

> I also get a little bit annoyed when we have people in those sorts of countries point the finger at Australia and say we should be shutting down all our resources sector so that, you know, they will continue to survive. They will continue to

> survive, there’s no question they’ll continue to survive and they’ll continue to survive on large aid assistance from Australia. They’ll continue to survive because many of their workers come here and pick our fruit, pick our fruit grown with hard Australian enterprise and endeavour (McCormack cited in Smee, 2019).

McCormack’s derogative comments reinforce the power imbalance between Tuvalu and Australia feeding into the broader geopolitics of humiliation which frames Tuvalu’s climate change concerns. His dismissal of Tuvalu’s climate concerns and the phrase “those sorts of countries” acts as a form of othering, removing Tuvaluan identity and downplaying their voice. Moreover, his comments about “pick our fruit” reduce Tuvaluan bodies to low-skilled labour. Hence, Tuvaluan agency was reduced with McCormack stressing their survival was due to large aid from Australia. As highlighted in my field diary extract, the timings were particularly acute given the tense negotiations the day before, with Morrison attempting to dilute the language of the Forum declaration text on climate change. Taken together, most Tuvaluans had interpreted Australia’s attitude towards Tuvalu as insensitive and insincere. Following the Forum, Lono, the Permanent Secretary of the MFATTEL reflected on McCormack’s comments remarking:

> We do the diplomacy in a way that is a win-win situation for us, and I think the help from New Zealand and Australia, given that we engage with them based on our own priorities, I think that engagement should be a win-win situation. So, when we heard the deputy PM of Australia talking about picking fruit and climate change, it was very unfortunate. Because the way we work, the PLS [Pacific Labour Scheme] is all about filling the gap. You know? (Interview, Lono, 29/08/2019).

Lono presents the Tuvaluan-Australian relationship as a mutually beneficial partnership. Under the PLS, Tuvaluans can apply for low and semi-skilled employment in Australia. However, this understanding of relations as a respectful partnership is undermined by McCormack's comments. Tuvaluan Prime Minister Enele Sopoaga stated in response, "I thought the Australian labour scheme was determined on mutual respect, that Australia was also benefiting. We are not crawling below that. If that's the view of the government, then I would have no hesitation in pulling back the Tuvaluan people as of tomorrow". He continued "we are still seeing reflections and manifestations of this neo-colonialist approach to what the leaders are talking about" (Tahana, 2019). Although Tuvalu has not withdrawn from the PLS, Sopoaga's comment indicates the significance of respect within diplomacy and Tuvalu's frustration with Australia's climate change approach. Tuvalu's hosting of the PIF rested on a platform of equality among members with the conference slogan "Securing our future in the Pacific". Sopaoaga's comments illustrate how this idea of reciprocity, of Tuvalu and Australia as equal sovereign entities with mutual respect, is challenged by Australia's perceived failure to acknowledge Tuvaluan concerns creating a culture of humiliation. Sopoaga's reference to neo-colonialism indicates how humour is seen to reinforce the exploitation of colonialism. Humiliation rests upon a lack of respect, with humiliation having been used throughout history as a form of punishment, for example, the stocks, to deter particular forms of behaviour. McCormack's derogative comments were intended to deter Tuvaluan outspokenness on climate change. Scholars should be attentive to how negative emotions such as humiliation frame diplomatic interactions between different actors. Emotions shape how international actors perceive

other states, thus framing how diplomats approach negotiations and the bounds of possibility within diplomacy.

7.2.2. Negotiating with Dignity

Island politicians see representations of atolls as “sinking spaces” as humiliating because they downplay their agency and close down alternative futures in which atolls persist. Elden contends, “territory is a process, not an outcome; not so far from what is increasingly being understood as an assemblage, continually made and remade” (2013, pp. 36). Metaphors of sinking disrupt this process of continually remaking the territory of island states by invoking a future in which their territoriality is undone by rising sea levels. Chaturvedi and Doyle (2010, pp.209) argue a ‘geopolitics of fear’ “draws upon and, in turn, feeds into various alarmist imaginative geographies and sits too easily alongside realist schools of thought within the most hide-bound and archaic traditions of international relations scholarship”. For Tuvalu, this ‘geopolitics of fear’ focuses on rupturing Westphalian understandings of the state by disrupting the ongoing assemblage of territory. Through this combination of humiliation and fear, the future of atoll nations has been questioned, contested and challenged with their sovereignty downplayed. Consequently, both politicians from Tuvalu and Kiribati have striven to focus on climate adaptation which upholds, or restores, dignity. Encapsulated within dignity is the right to be valued, respected in one’s own right and treated ethically.

As discussed in Chapter 6, Migration with Dignity was a pre-emptive strategy to facilitate the contemporary and future mobility of Kiribati’s population. To restore dignity, Tong focused on individual agency and adaptability. This focus on dignity resonated internationally, and increased awareness of Kiribati and the potential impacts of climate change and helped to build a strong international persona for Tong. However, it is worth

highlighting that this focus on dignity did not resonate with the everyday lives of the i-Kiribati. One senior i-Kiribati diplomat, Tito, described how the work of Tong was perceived as high-level advocacy at the national level with a lack of community consultation on Migration with Dignity. Consequently, this lack of engagement led to an unfavourable reception from Kiribati's population as most people thought there was nothing dignified about leaving their homes (Interview, Tito, 23/08/2018). Although this diplomat was appointed by Maamau, this conversation is reflective of many i-Kiribati participant's views with Migration with Dignity eliciting many negative emotional responses. Questions arise over what adaptation should be constituted as dignified and who should define dignified or undignified responses to climate change. Diplomacy has enrolled dignity to endorse migration as a normatively desirable outcome for international audiences but lacked engagement with Kiribati's population. Maevarau, an i-Kiribati delegate at COP24, whilst describing the policy shift away from migration argued "It instils a sense of fear among our people. But on top of fear, our people are proud people" (Interview, Maevarau, 06/12/2018). He juxtaposes the fear of inundation and loss of identity with a sense of pride among the i-Kiribati. Pride refers to the satisfaction or pleasure that is associated with one's achievements, or a closely associated individual, community or institution. Moreover, pride also entails a degree of confidence and self-respect that arises from being a member of a group; typically, a socially marginalised group with a shared identity, culture and experience.

Migration with Dignity provoked fear within the population because it suggested the i-Kiribati community's future was uncertain, and the future displacement and dispersal of the i-Kiribati challenged this communal sense of pride. Sinking is viewed as an undignified

description of the threat climate change poses to atolls and has subsequently led to significant resistance from some civil society groups. Dawn, a scholar and activist from Kiribati, when asked about the use of sinking as an adjective to describe Kiribati, replied "We are not sinking, we are fighting. We are fighting and combatting climate change" (Interview, Dawn, 04/07/2018). The phrase "we are not sinking, we are fighting" has been promoted by youth grassroots organisation 350 Pacific. It has proliferated through Pacific climate activism, with campaigners, politicians NGOs all drawing upon the phrase. McNamara and Farbotko (2017) argue that solidarity and collective identity has been created through the figure of the Pacific Climate Warrior; blurring the traditionally patriarchal figure of the warrior with more traditionally Pacific feminine characteristics of nurturing and collaborating. This combative discourse has reasserted Pacific agency over the geopolitical future of the region and restored pride in the proactive responses that resist dominant Western narratives.

Inevitably, the contestation of the future of atoll states is emotive. Questions of identity, self-determination and justice come to the fore when considering the future of Kiribati and Tuvalu. Faced with the potential loss of their state, Tuvaluans challenge the perceived indifference and ridicule from Australian politicians. Whilst science has mobilised a supposedly rational and authoritative claim to knowledge within climate diplomacy, this section illustrates that emotions play an equally important role in negotiations. Underpinning these dynamics is a question of power and responsibility. Emotional responses from Tuvaluan politicians toward Australian climate diplomacy are built on an unequal power relationship, in an attempt to overcome the perceived humiliating approach of Australia. Similarly, i-Kiribati politicians have been frustrated by

humiliating interactions with Australia exemplified by the dismissal of Tong by Environmental Minister Melissa Price. Kiribati's politicians had invoked the idea of dignity to frame its approach to climate diplomacy in resistance to this, even though this remains contested. Although emotions are used discursively to frame relations, they also have a deeply affective role in influencing the perceptions and decision-making processes of diplomats. Broader emotive complexes shape how Pacific atoll states attempt to subvert hegemonic representations. Consequently, discussion of emotions speaks to questions of justice. Are these islands in need of saving? If so, who must provide that salvation and what does the act of "saving" look like?

7.3. Geographies of Salvation

Atolls are perceived as being on the frontline of climate change with a finite future, thus raising questions over whether this imaginary is contestable, alterable or avoidable. There is a dichotomy, between the proactive action of Tuvalu and Kiribati to "save" themselves through domestic adaptation and their international advocacy to facilitate global mitigation so others can "save" them. However, there is interdependence between the two – with much international diplomacy dependent on island states being seen to be proactive and much domestic action dependent on international funding and technical support. This section illustrates what political geographers offer to the analysis of "saving" through ideas of scale and performance. Firstly, this section explores how salvation has featured within Tuvaluan climate diplomacy. Secondly, it will consider the theological context of salvation and the role of faith in Kiribati's climate diplomacy.

7.3.1 "If we save Tuvalu, we save the World"

Tuvalu and Kiribati have become emblematic of the climate crisis within global governance and diplomacy. In recent decades, key actors like Anote Tong (President of Kiribati, 2003-2016), Ian Fry (Tuvaluan Climate Change Ambassador, 1997-present) and Enele Sopoaga (Tuvaluan Prime Minister 2013-2019) have been prominent within climate diplomacy internationally. Scholars have argued that these figures are not only outspoken actors within the UNFCCC process but are also significant due to their leadership of groups like AOSIS and ability to influence global consciousness (Farbotko and McGregor, 2010; Carter, 2015; Fry and Tarte, 2015a). Consequently, Sopeaga and Tong have been perceived not only as spokespeople for their respective states but also for the Pacific Islands or SIDS more broadly. After Tong left office in 2016, Kiribati became less visible globally and, as reiterated by several research respondents, Sopeaga has been perceived as the most vocal spokesperson for the Pacific. Since then, until leaving himself office in 2019, Sopoaga has promoted Tuvalu's climate diplomacy through the slogan of "if we save Tuvalu, we save the World". Lono, Permanent Secretary of the MFATTEL, stated:

> The idea of "Save Tuvalu" was our Prime Ministers. I think given his knowledge and involvement in climate change negotiations he has been using that for the last seven years in his statements and at the UN. I think really, during the Paris Agreement, that was the pinnacle of using that phrase (Interview, Lono, 29/08/2019)

Sopoaga has used the phrase both domestically and internationally; notably during the run-up to COP21 in Paris. Indeed, the phrase has formed an important part of Tuvalu's nation branding. Saunders (2017, pp.13) argues there is a "fluid, socially constructed view of a nation which exists on both the domestic and foreign level". Consequently, this

dynamic perception of the nation is susceptible to change through diplomacy and nation branding describes the phenomenon of state actors consciously promoting their activities to construct a brand for the state (Bolin and Stahlberg, 2010). There is a fluidity to how the Tuvaluan Government has utilised the notion of "saving Tuvalu" with a multiscale geopolitics of salvation mobilised within its diplomacy. McConnell (2019, pp.47) advocates that "it is only in recent years that a select group of scholars in diplomacy studies have started to focus on the spatial dimensions of diplomacy and even then the theorization of concepts such as space, place and scale remains somewhat underdeveloped." Through a consideration of how "if you save Tuvalu, you save the World" has travelled, this section theorises how the intersection of space, place and scale influence the diplomacy of "saving".

7.3.1.1 Situating Tuvalu within "Saving the World"

Rhetorical devices have been used by politicians, diplomats and actors to situate atoll nations as being on the "frontline" of climate change, acting as a global early-warning system. All of the members of the Coalition of Atoll Nations on the issue of Climate Change (CANCC) have used various deviations of this message to emphasise their vulnerability (Carter, 2015). However, Sopoaga has taken this message and shifted the scale and premise within Tuvaluan climate diplomacy, Tuvalu is not constructed as merely an early warning system but as a key site whose fate is intertwined with the worlds. As Tuvalu has been constructed as a space of extreme vulnerability to climate change, if there is sufficient global action to "save" Tuvalu, then by extension the world will also be saved. Underpinning this phrase is a rationale that echoes sentiments within religious scripture. According to Talmud Yerushalmi, Tractate Sanhedrin 4:5, "whoever saves one

life earn as much merit as though he had saved the entire world" (Reisman, 2008, pp.57). Citing this, Limmer et al. (2018) argue it justifies a clear moral obligation to act on issues around world hunger and climate change. In doing so, there becomes a clear obligation for global actors to prevent Tuvalu's inundation by embedding Tuvalu within global climate governance thus disrupting hegemonic representations of Tuvalu's marginality. Lono, Permanent Secretary of the MFATTEL, expanded:

> We need to save us. It is also a statement of the reality of climate change and in Tuvalu, this is what we want to do. I think also, it keeps on reminding the world that climate change has no boundaries. It will have a flow-on effect. Even if Tuvalu disappears, climate change will not stop. Climate change will keep coming. There will be worse fires, there is scientific data that says this… Something that will help us to remain as Tuvalu. So those are the things, the idea was actually to be seen as part of the Tuvaluan culture, we always go out and help each other. If you look around, there isn't much poverty or hardship. We organise ourselves in communities together. (Interview, Lono, 29/08/2019)

Repetition of the pronoun "we" within the phrase seeks to assert Tuvaluan agency over climate change governance highlighting their proactive approach. Yet, simultaneously Lono also stresses the highly interconnected, complex nature of climate change and Tuvalu' insignificance in preventing this planetary shift. If Tuvalu is inundated, climate change will continue regardless. Indeed, Lono's reference to fire seems omniscient given the timing of the interview at the beginning of the devastating 2019-2020 bush fire season in Australia. Moreover, the phrase is purported to be bringing the community values and altruism of Tuvaluan culture to its diplomatic approach through an emphasis

on the collaborative nature of Polynesian society, a sentiment echoed by other participants. Alofisula, a Tuvaluan diplomat at COP24, speaking about the phrase stated:

> We are here, for the world to see the urgency to save Tuvalu as our Prime Minister usually says. To save Tuvalu, we will save the world. The PM has got his, you know, his way of saying that. My personal view is the world is made up of different countries so if Tuvalu is lost due to climate change, we are losing one culture, one tradition…We are losing a country with people. We are not complete without Tuvalu. Tuvalu is like the missing piece, you know, that makes up the puzzle to make it complete. If we save Tuvalu, we save the world (Interview, Alofisula, 13/12/2018)

Tuvalu is being positioned as a unique nation with its own culture and traditions, thus deserving of preservation. However, the loss of Tuvalu is simultaneously presented as a loss to the globe. Thus, Tuvalu ceasing to exist as a state is presented as more than merely a political or economic consequence but also as a social-cultural loss. Nevertheless, it is worth acknowledging the limitations to the nation branding of Tuvalu. Susan, a Western Diplomat accredited to Tuvalu, described:

> It invokes an image, right? It is a great marketing slogan … so, Tuvalu is on the frontline of climate change as are many of the other low-lying small island states, the atolls, so it is accurate if you can fix the problem to save Tuvalu then you are going to fix the problem to save the world…I think it is a useful slogan to have. Is it effective on the world stage? Probably not as much. Because Tuvalu is such a, *(pauses),* it is not a well-known country, so I guess you probably have to get that message out a little bit more (Interview, Susan, 08/07/2019)

Whilst Susan reinforces the potency of the slogan, and its role in positioning Tuvalu within global climate governance, she also identifies the limitations. She reiterates some of the traditional assumptions that small state diplomacy remains constrained by limited international awareness (Graham, 2017). However, to overcome this, the Tuvaluan Government has mobilised the phrase at multiple scales. Senior Tuvaluan diplomat George stated:

> [Sioiaga] often says it at his UN General Assembly speeches and various international fora. It has now sort of become a bit of a catchphrase, I guess. You know the UN Secretary-General when he visited Tuvalu sort of picked up on that phrase as well (Interview, George, 08/07/2019)

This illustrates how the phrase has travelled, with the UN Secretary-General António Guterres using iterations of the phrase in press briefings. Guterres' visit is considered in greater depth later in this chapter, but Tuvalu's climate diplomacy has focused on using other actors to amplify its framing of climate change. Taukelina, a senior official in the Funafuti Kaupule stated: "is a very catchy phrase to make. I heard one or two other Prime Ministers repeating that. Save Tuvalu, Save the Pacific, Save the World" (Interview, Taukelina, 28/08/2019). Through the slogan, Tuvalu's nation branding has asserted the significance of "saving" Tuvalu juxtaposing the focus on "sinking". In doing so, inundation is no longer normalised as the inevitable, or even likely, future for Tuvalu. Instead, there is a focus on concerted international effort, and increased agency of the Tuvaluans, in "saving" the state from climate change. The nation branding of Tuvalu, however, does not only rest on international discourses and slogans but also has been constituted in the everyday lived experiences of Tuvaluans and mundane diplomatic practices.

7.3.1.2 The Everyday Geographies of "Saving Tuvalu"

Although usage of the phrase "Saving Tuvalu" is most notable at an international level, the words have also resonated domestically and have become embedded within Tuvaluans' everyday lives, prominently displayed around Funafuti. Observations from my fieldwork diary noted how students from the University of the South Pacific often wore t-shirts embellished with the slogan and the phrase was cited by Radio Tuvalu's presenters during talk shows. Moreover, before the PIF, the government erected numerous billboards featuring versions of the slogan alongside more informal visual reminders such as posters created by children that adorned Funafuti's schools (sees Figure 7 and 8). There is a clear contrast between the professionally printed billboards with the informality, playfulness and colourfulness of the banners made by children. Whilst some of these artefacts, like the billboards, were aimed at foreign diplomats, journalists and

Figure 7: A government-erected billboard (Author, 2019)

politicians, many were not. Illustrative here is how the binary between the domestic and the international is artificial and blurred, with nation branding resonating with domestic audiences. Tuvaluan activists, youth groups and politicians have all utilised variants of the slogan within their campaigns.

Figure 8: A poster created by children outside their school (Author, 2019)

Throughout the 50th PIF in Tuvalu, the slogan's repetition was evident. During his opening speech, Sopoaga argued, "we will show the world we will never run away because of climate change, that we are going to remain fighting and save the people of Tuvalu, save the people of the Pacific and the people of the world". Repeated throughout the ceremony, Sopoaga finished his speech with "If we save Tuvalu, if we save the Pacific, then we save the world". (Participant Observation, 13/08/2019). Scalability has been a key component of the applicability and versatility of this slogan to different diplomatic

spaces. In the run-up to, and during, the 2019 PIF in Funafuti, the slogan was upscaled to incorporate the wider Pacific. The act of nation branding remains fluid, with the slogan being mobilised in this context to situate Tuvalu within the broader Pacific. Alongside the visuality of the slogan through billboards and posters around Funafuti, it was also a key performative part of the diplomacy at the Forum. Kilipaki, Director of Tuvalu's Department of Environment, stated:

> I like the phrase. I think it has to do with humanity. So, if you save the humans of Tuvalu, you can save the world. If you can't save us, then you can't save the world. It talks about justice. For the forum, I composed a Fatele which says: if you save Tuvalu, you save the world (Interview, Kilipaki, 20/08/2019)

A Fatele is a traditional Tuvaluan performance of dance and song. During the PIF, different island groups performed Fatele in the Tulakiga Falekaupule, a traditional meeting house, in the Queen Elizabeth Park. Attended by Pacific Leaders, diplomats and journalists, the Fatele lasted for several hours involving hundreds of Tuvaluans. With performers wearing bright colours, traditional dress and foliage, Fatele involves the banging of drums, singing and shouting. Occasionally, high ranking dignitaries, like Ambassadors and Heads of State, would join in, much to the delight of Tuvaluan performers and spectators (See Figure 9). Marinaccio (2019) argues Tuvaluan conceptions of diplomacy centre on the importance of communication, cooperation, consensus, non-confrontation and hospitality. A key central part of this is through the *alof*, a Tuvaluan gift-giving protocol which includes songs, dances and speeches that emphasise the importance of friendship. Kilipaki composed a Fatele entitled "Save Tuvalu to Save the

World” (see Figure 10) which was performed at the Forum and encapsulates many pertinent themes of Tuvaluan climate diplomacy.

Firstly, the Fatele was performed by Tuvaluan citizens; the very bodies who constitute the Tuvaluan nation that is purported to need “saving”. Secondly, as highlighted above, Tuvaluan diplomacy has focused on the necessity of preserving Tuvaluan culture through the population remaining in-situ. Fatele form a key cultural activity in the ongoing construction of Tuvaluan identity, thus the performance not only seeks to call for a “saving” of Tuvalu but enacts to demonstrate a key cultural component of Tuvaluan identity that could be lost to climate change.

Figure 9: Fatele at the PIF. Seated on the right are the Pacific Leaders (Author, 2019)

FATELE - "SAVE TUVALU TO SAVE THE WORLD"

1.
Tuvalu, my small country
Where do you seek refuge during adverse weather conditions?
Our refuge has been prepared by our forefathers
Tuvalu for the Almighty, The Almighty for Tuvalu

Chorus

Save Tuvalu to Save the World
Tuvalu, your God is your sanctuary
Play your part to save Tuvalu
We paddle together to save Tuvalu

2.
Leaders of Tuvalu and the Pacific
Hear our voices, accept and implement
So as to secure our future
We oar together to elevate the Pacific

Chorus

Save the Pacific to Save the World
Our future is in our hands
Put together our hearts and strength
We paddle together to save our Pacific

Figure 10: The words of the Fatele performed at the PIF

Kilipaki described the Fatele's message:

> …the first issue that affects us is climate change, trying to capture what the Prime Minister is always saying, save Tuvalu save the World, and also about the theme of the Pacific Forum Leaders Meeting which is to secure our future. The Prime

> Minister is always talking about the canoe, paddling together – we have to paddle together. There is no need for passengers, we have to do our work… That is why it is a good metaphor for us… We are Polynesians, we know how to travel around the world, the same as those from Chuuk. Using stars and things like that, we can do that. Our ancestors could do that. (Interview, Kilipaki, 20/08/2019)

He explains how his Fatele encapsulates the sentiment underpinning "if you save Tuvalu, you save the World". The Fatele reinforces the role of smallness within the construction of Tuvalu as vulnerable to climate change. Moreover, there is a suggestion that Tuvalu's adversity can be overcome due to its long history with "our refuge has been prepared by our forefathers". Referencing "adverse weather conditions", invokes a temporary temporality as opposed to the permanency of climate change, eluding to a future in which Tuvalu continues to persist in situ. The Fatele also includes multiple references to paddling together, firstly to save Tuvalu, secondly to save "our" Pacific. This metaphor draws upon the Polynesian heritage of wayfaring and navigating the Pacific and demonstrates the necessity of Tuvaluans working with others to tackle climate change. This reference to wayfaring speaks to the recent reconnection with Oceania's long history. Epeli Hau'Ofa (1993) in his seminal piece *Our Sea of Islands* offers a bottom-up, decolonial and holistic view of Oceania as an integrated connected space of networks as opposed to isolated islands. Focusing on the ocean, and the connectivity facilitated by seafarers this reimagination is seen as "challenging the derogatory and belittling views of indigenous cultures" (pp. 149). Hau'Ofa's work has been incredibly influential within academia and beyond, it has formed part of a reconnection with traditional knowledge. Through the Fatele, a decolonial vision of Tuvaluan and Pacific cooperation has been performed asserting the importance of Pacifica heritage in tackling climate change.

Through an array of processes, the propagation of the slogan, “if you save Tuvalu, you save the World” has acted as a form of nation branding at multiple scales. This section has challenged the ontologically pre-given scale of nation branding at the international level, illustrating how it is equally constituted through everyday practices and performances. Marston (2000, pp.225) argues that geographers need to “understand how particular scales become constituted and transformed in response to particular socio-spatial dynamics”. The object that requires “saving” is fluid in scale, from the body to the Pacific, depending on the diplomatic audience. Cultural phenomena, like Fatele, are used to perform the idea of Tuvalu as a unique cultural entity that is at risk from climate change and subsequently stress what needs “saving”. Critics have been sceptical about nation branding with Kaneva (2011) arguing that the practice limits the range of possible identity narratives and shapes for the benefit of an external Western audience. However, Tuvaluan climate diplomacy has opened up the possibility of a plurality of future Tuvaluan identities by resisting eco-colonial narratives of inevitable inundation through illustrating the necessity of “saving” Tuvalu. Within this, the canoe has acted as a symbol of Pacific perseverance, unity and culture reinforcing the possibility of Tuvalu’s future resembling its past and present. Reflecting the significance of Christianity within Tuvalu culture, the Fatele emphasises God’s role in “saving” Tuvalu with references to “Tuvalu for the Almighty, the Almighty for Tuvalu” and “your God is your sanctuary”. As this chapter now goes on to explore, faith, and its relationship to salvation, are key to understanding climate change geopolitics in the Pacific.

7.3.2. Faith, Climate Change and Geopolitics in Tuvalu and Kiribati

Faith plays a key role within daily lives, politics and diplomacy in the Pacific; thus, Christianity has influenced framings and understandings of climate change. Fair (2018) discusses the complex tensions and entanglements between scientific, religious and traditional knowledge in Vanuatu. She unpacks how reductive approaches of religion tend to homogenise and marginalise religious understandings as a barrier to climate adaptation as opposed to epistemologically pluralist approaches in which different articulation of religious stories can facilitate adaptation. Christianity first arrived in Tuvalu when a Cook Islander deacon washed ashore in 1861. In 1865 the first European Protestant Missionary arrived with a preacher established on each island by 1878 (Faaniu and Laracy, 1983). Subsequently, Christianity has played a central role in Tuvaluan life with many research participants discussing how faith shapes understandings of climate change in Tuvalu. For example, Taukelina, a Funafuti Kaupule senior official, stated:

> It is in the bible. That is what they claim. I believe it. I'm a Christian. Our pastors keep harkening on to this, there won't be any sea level rise. God has made a promise to Noah, every time you see a rainbow that is a promise that God will never bring flood again to the world. That has been taught. Over 150 years here on this island. It has become, because of the length of time, it has become part of our culture. People believe it now, they believe. In fact, that is probably why the older people believe that it won't be (Interview, Taukelina, 28/08/2019)

Whilst Taukelina was not alone in these views, most policymakers, although acknowledging the importance of faith, distanced themselves from faith-based climate-scepticism by stating they were the opinions of others. Across Pacific atoll states, Noah's Rainbow covenant is used to challenge future imaginaries of inundation. In Genesis, God

tells Noah "Never again will all life be destroyed by the waters of a flood; never again will there be a flood to destroy the earth. And God said, 'This is the sign of the covenant I am making between me and you and every living creature with you, a covenant for all generations to come. I have set my rainbow in the clouds" (Genesis. 9:11-13). This covenant, and the ongoing presence of rainbows, has been utilised to lend credence to the future habitation of Tuvalu and discredit narratives of inundation. However, this is contested, with some believing salvation may not come from divine intervention. Matthew, a Pacifica PIF representative, offered an alternate perspective:

> We created a problem. We don't expect God to save us or to help us solve that problem if we created it. We solve it. Basically. Some churches, not just here but in the US and wherever, say if this wasn't God's plan – climate change happening – it will be in his plan whether we survive or not. Personally, I don't agree with that kind of approach (Interview, Matthew, 09/07/2018)

Matthew uses a collective "we" in which Pacifica people are subsumed within the global population thus are partly responsible for causing the problem. Salvation will not come from God, but from humanity – as they are responsible for the issue. He is keen to stress this occurs beyond the Pacific, highlighting how churches in the United States have been promoting narratives of indifference, in which inaction is irrelevant as God ultimately determines salvation. Whilst in Tuvalu these conversations have been taking place among parishioners and congregations, it has not been politicised at the national level. Prayer and biblical reference do feature in the speeches of Tuvaluan politicians on the issue of climate change, but faith has not been mobilised in opposition to science. In Kiribati, the situation is more complex. Faith has been used in the politicisation of climate change

both within domestic politics and diplomacy. Different understandings of faith have been enrolled to (dis)credit particular imaginaries of Kiribati's climate future.

Following his 2016 election as President of Kiribati, Taneti Maamau used Christian theology to discredit his predecessor's imaginary of Kiribati as a "sinking nation". However, whilst this approach was partly to distinguish himself from his predecessor, it transcended the realm of domestic politics and has influenced Kiribati's climate diplomacy. Appearing via video link at COP23 in Bonn, Maamau declared, "climate change is indeed a serious problem. But we don't believe that Kiribati will sink like the Titanic ship. Our country, our beautiful lands, are created by the hands of God" (CBS, 2017). Despite this statement, Maamau's views cannot simply be dismissed as climate-scepticism, they are more nuanced. Whilst he acknowledges the severity of climate change, and under his leadership Kiribati has continued to engage in the UNFCCC process, climate change has become less of a diplomatic priority under his administration. However, as argued in Chapter 6, it has been reframed as a barrier to development rather than an existential threat. Development funding has been framed as a means to alleviate climate concerns. Domestically, this shift served a purpose to increase the credibility of a future for the population in-situ thereby speaking to more positive emotions such as hope. Maamau's comments have been reinforced by other i-Kiribati politicians and diplomats. Tito, A senior i-Kiribati diplomat appointed by Maamau, explained "it was God's hands that built Kiribati whereas man's hands built the Titanic. We need to believe and to have more hope in the future" (Interview, Tito, 23/08/2018). Drawing on particular interpretations of the bible, Kiribati is presented as a divine creation thus not at risk from inundation. Thereby, it offers an alternative to the humiliation of sinking, with faith offering a more hopeful future for Kiribati. Moreover, it is notable that the

imaginary of Kiribati as sinking is contrasted with the Titanic. As a ship, the Titanic is emblematic of Western hubris of the superiority of science and technology. Nevertheless, it is worth noting Maamau is not unique in using Christian faith to construct climate futures. Maevarau, a diplomat from Kiribati at COP24, described:

> They [politicians] have to acknowledge what the people believe and if faith is a big part of that it has to be in their statements and their speech. But I think, there is a different tone in terms of faith in Kiribati because faith is often practised as cultural… He does everything. He is responsible for everything and then we leave things up to him. In so much as sometimes, we do not need to do anything because of that faith. So, the promise that we will not disappear as God proclaimed and promised is something that has stuck with people, but the interesting thing is that politicians can have a way to change that and Anote did. He went to the people themselves and he understood that they believed, they had faith and that they were religious. He went to the Pope and talked to the Pope. He came back and told the people that the Pope told him to tell them that climate change is real, and they believed, and they accepted the message (Interview, Maevarau, 06/12/2018)

Faith and politics are intertwined in Kiribati's environmental narratives with religion shaping perceptions. God is invoked as the arbitrator of Kiribati's future. Tong used the Pope's authority as a pinnacle figure in Christianity to lend credibility to his imagined future for Kiribati. Agnew (2010) argued, "beyond the question of extending the concept of geopolitics to churches lies the question of how much states and other agents of sovereignty depend upon the Church (or churches) for the very sacred and ecclesiastical

ground upon which they often claim to stand (pp. 44)". Whilst Tong's right to govern did not rest upon the Church for divine justification, his position on climate change was seen to challenge the stance of the clergy. Thus, Tong sought the authority of the papacy through the endorsement of Pope Francis to strengthen the legitimacy of his imaginary for Kiribati. Maevarau continued:

> When he [Tong] left office, the new administration came in and the current president is very religious as well… He used to be part of a church and so he then comes along and tells them: no change your views. We are sticking with this notion; we are not disappearing as God promised. Those people who changed their mind with Anote now changed their mind again (Interview, Maevarau, 06/12/2018).

Interpretations of religion are not static and are constantly being co-opted and reshaped by political figures. Consequently, religion can feature in more-than-scientific, yet not anti-scientific, responses to climate change that are both locally meaningful and morally compelling (Fair, 2018). Whilst Tong had enrolled the Pope to legitimise a future of inundation, Maamau used his spiritual authority as a deacon of the Kiribati Uniting Church to use faith to challenge the inevitability of inundation. This quotation is illustrative of this complex intersection between faith, politics and climate. Since leaving office, Tong has continued to draw upon biblical references in his advocacy, entitling his climate change documentary: "Anote's Ark". Invoking Noah's Ark, Tong has sustained his focus on narratives of inundation and flooding.

Through a consideration of scale and performance, political geographers are able to unpack questions of "saving" within diplomacy. Calls for salvation are fluid in scale, with

diplomats mobilising the appropriate scale for the means of interaction – be that through the bodies of teenagers wearing t-shirts stating “Save Tuvalu, Save the World” to formal speeches addressing the UN. This fluidity has allowed, to a certain degree, this message of saving to propagate beyond Tuvaluan actors. Whilst in Kiribati, biblical implications of salvation have been invoked with complex and contradictory views on the role of humanity and God in respect to climate change. Responsibility for the “saving” of Kiribati is contested, whether there needs to be human action or whether divine intervention will prevent inundation. Faith has been mobilised politically to discredit or legitimise particular futures. Thus, geographers must be attentive to the role of faith and religion within the imagined geographies of climate change. Religion has been used to draw upon more positive emotions, such as hope, to construct an alternative future for atoll states. However, the geographies of salvation extend beyond the ecclesial, with the visuality of bodies also playing a key role in mobilising supportive action.

7.4 Climate Change as Spectacle: Visual Diplomacy

Spectacle describes a visually striking performance or display. From the grand architecture of embassies to the prominence of flags, the visual has always played a key role in diplomacy (Constantinou, 1996). Neumann (2006) argues that “every social practice has its aesthetics. Any diplomacy or politics needs an aesthetics, preferably a sublime one that can make sense of the unintelligible stranger and that can make the chaos of one’s relations with the stranger look like parts of one’s cosmos” (pp. 886). With atolls being visually striking geomorphological features adorned with rich golden sands, turquoise lagoons and deep-blue oceans, images of the islands of Tuvalu and Kiribati have become iconic within climate crisis narratives (Farbotko, 2010b; Donner, 2015). Imagined

as peripheral island spaces, these visuals have also featured in stereotypical constructions of vulnerability (Jolly, 2001; Kelman, 2018b) and been co-opted with atolls transformed into sites of climate anxiety by climate activists and international media outlets without Pacific voices present.

Within its climate diplomacy, Tuvaluan politicians and diplomats have subverted, reconfigured and challenged these dominant visuals, utilising their islands and people to transform climate change into a spectacle rendering it visible in order to serve their own priorities. The 50th PIF in Tuvalu provides an ideal opportunity to consider visual diplomacy, with the Forum not only promoting Pacific cooperation but also serving as an opportunity to take "the Pacific" voice to the world (Fry and Tarte, 2015a). Through the examples of this conference and the UN Secretary General's 2019 visit to Tuvalu, in this section I explore the role of bodies within visual diplomacy.

As discussed in Chapters 2 and 6, conferences are key sites of climate diplomacy (Brun, 2016; Craggs and Mahony, 2018). Diplomatic conferences are not temporally bounded within the few days in which they are held. Logistical planning and preparation begin years before the conference. Moreover, large international conferences leave a material legacy in the everyday lives of those living near the venue for generations, and the impacts of significant conferences for global international relations may last decades or even centuries. Beyond the conference hall, an under-theorised aspect is the travel of attendees to and from the conference. Shimazu (2014) discusses the symbolic performance and staging of the 1955 Bandung Conference through which national leaders walked from their hotels to the Freedom Building, arguing that "it is this brief walk that became the most iconic 'site/sound of interaction' between the Asian and

African leaders and the people of Bandung" (2014, pp. 244). However, it is perhaps the initial arrival in Tuvalu which had the greatest impact on attendees and press coverage. All delegates arrived at Funafuti International Airport. Ordinarily, Tuvalu is connected by two or three flights a week to Suva and one flight a week to South Tarawa, but these were bolstered during the Forum by up to a dozen daily flights run by the Australian and New Zealand Air Forces. Lono, MFATTEL's permanent secretary, described:

> The fact it [The Forum] is happening in Tuvalu is a symbol in itself. When you come into land, when you are landing you don't know where you are going to land. On the sea or on the land? But I think, having the children there is very symbolic. They are the future. They are the future leaders. And that this will actually happen if we don't do anything, we will disappear (Interview, Lono, 29/08/2019)

The two-hour thirty-minute flight for delegates to Funafuti International Airport was a key affective component of the conference. After flying over the Pacific Ocean, the narrow strip of Fongafale islet comes into sight moments before touchdown. Ordinarily, plane landings in Funafuti are an event in themselves, sirens blare to clear the runway with crowds gathering to watch the planes land and greet family, colleagues and visitors. During the Forum, especially for notable dignitaries, these crowds swelled significantly. Whilst this experience alone is visually stimulating, the Tuvaluan Government maximised on the moment of arrival to create a visual diplomatic event. In front of the airport terminal, an "island" had been constructed with a traditional Polynesian building, a statue of the 50th PIF logo and a shallow moat (See Figures 11 and 12).

Figure 11: Arrival of New Zealand Prime Minister Jacinda Ardern to Funafuti (Author, 2019)

Figure 12: Constructed for the PIF, small children would sit singing in the water to greet dignitaries (Author, 2019)

When heads of state, such as Australian Prime Minister Scott Morrison, arrived, children, dressed in their school uniforms or traditional Tuvaluan dress would be sat playing in the water, singing “Save Tuvalu, to Save the World” (Participant Observation, 14/08/2019)

*C*hildren’s bodies are emotive and as Smith (2013, pp. 582) argues “young bodies are understood to be proxies for the future and vectors for the unravelling of territory”. Embodying the future of Tuvalu, the children playing in the water performed the topographic anxiety for the state of Tuvalu. In doing so, a complex nationalist affective atmosphere was created with the joyful children singing and bright colours juxtaposing with the symbolism of inundation and loss (Closs Stephens, 2016). Situating these bodies in the water at the airport transforms the place into a site of diplomacy. Diplomacy is practised in “designated sites that are choreographed to produce particular affective atmospheres” (McConnell, 2019, pp.47). Informal conversations with Western diplomats during the forum attested to intimate and personal reactions invoked within them by this act. It is important to consider these reflections, as echoing McConnell (2020, pp.16) “by being attuned to exaggerated political behaviour – from intimidation to acts of collective solidarity – heightened emotional registers and shifts in affective atmospheres, the boundary between the personal and the political becomes truly blurred”. In this performance, the Tuvaluan Government sought to invoke a personal emotional response of sympathy within arriving politicians in order to soften their political stances. These performances, however, have multiple audiences and were not only intended to garner emotional responses from arriving dignitaries but also as part of a cohesive public diplomacy strategy, with the press-pit positioned to give optimum access for photographers. Indeed, images of Scott Morrison greeting the children adorned many

global news outlets' coverage of the Forum (see Figure 13) juxtaposing with Australia's dismissive approach towards Tuvalu's climate concerns.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at: LYONS, K., 2019a. *'Our People are dying': Australia's climate confrontation in the Pacific.* [Online] Available at: https://www.theguardian.com/world/2019/aug/18/our-people-are-dying-australias-climate-confrontation-in-the-pacific [Accessed 29 July 2020]

Through the so-called "global intimate", Pratt and Rosner (2006) position the body as a location from which to understand the collapsing and constructed scale of the global and geopolitical as intimately lived. The body then functions as a scale and site upon which ideas, ideologies and politics are performed and made meaningful. Potential climate futures are made visible through the bodies of children to facilitate diplomacy to avoid this future. Whilst the bodies of children are emotive, Western bodies can, potentially, garner more international attention and reach.

7.4.1 May 2019: Tuvalu and the UN Secretary-General

Bodies play a key role within diplomacy, and the presence or absence of particular bodies in particular spaces constitute highly geopolitical acts. On 17th May 2019, António Guterres was the first UN Secretary-General to visit Tuvalu. During his short one-day visit, Guterres held bilateral meetings with the Prime Minister and engaged in symbolic acts like planting a coconut tree, visiting reclaimed land and sailing in a traditional canoe. Senior Tuvaluan diplomat George stated:

> We tried for a number of years to get Ban Ki-Moon here when he was secretary-general. He got as far as Samoa for the Samoa Pathway meeting, but we could not quite get him to come to Tuvalu. It was in the margins of the UN General Assembly last year that the Prime Minister invited him to come. He has a meeting, you know an hour meeting, with small island states for member countries each year in the margins at the UN General Assembly (Interview, George, 08/07/2019).

Before Guterres, Tuvaluan officials attempted to secure a coveted visit from the UN Secretary-General to raise Tuvalu's profile. Shimazu (2014, pp. 242) "world statesmen as key diplomatic actors are often perceived by audiences to be personifications of the states they represent; hence, the giving of a strong stage performance becomes even more critical to creating a positive national image in international politics". As the personification of the UN, Guterres' visit solidifies Tuvalu's position within global climate diplomacy and is perceived as an indicator of Guterres' commitment to climate change. Goldstein (2008) explores the politics of the state visit arguing this bilateral form of diplomacy has an unprecise nomenclature thus is open to flexibility from the receiving state. As such, the Tuvaluan Government sought to utilise the visit not just as an

opportunity for public diplomacy but also to bring about a change in Guterres' opinions through certain affective atmospheres and the embodied experience of diplomacy. Lono, MFATTEL's permanent secretary, stated:

> The main purpose of him being here is to contextualise his views; his political views; his economic views; his social views; his environmental views; his sustainability views on climate change. I think for us, we can do our advocacy. But I think once you feel it. You come to visit Tuvalu. You have been here. You see the buildings. You see the contours. You can relate. I think that is one of the important aspects of his visit. For him to remove all the journalism and all the ideas and just to feel it, to feel climate change (Interview, Lono, 29/08/2019).

Lono stresses the significance of Guterres seeing and experiencing life in Tuvalu. The foreign visit is not presented as just a symbolic act, but an embodied experience for the visiting dignitary through which the perceptions and views of influential figures, like Guterres, are altered. Climate change is presented in a more-than-representational manner, in which it must be felt. Susan, a Western diplomat accredited to Tuvalu, reinforces this:

> It was great that he visited because it is very difficult to explain what is happening to someone unless you drive up to that causeway up there and stand there with the lagoon on one side and the sea on the other. It is hard to explain that to someone, it is hard to explain how small Tuvalu is and how exposed to the elements it is… I think coming here shows a commitment to understanding what the issue is and I think as a result he certainly can visualise and talk about the impacts a lot better than he could (Interview, Susan, 08/07/2019).

Affective elements of diplomacy are stressed through the experiences of 'seeing' and experiencing Tuvalu's exposure to climate change. Tuvalu is constructed as a space in which the experience of smallness and vulnerability will strengthen diplomat's understandings of climate change. Susan refers to the causeway, Funafuti's narrowest part, a small single-track road connecting two islets. Constantinou (2013, pp.147) contests that "awakening consciousness is something that cannot be easily raised with regard to diplomacy. It is generally viewed as a luxury that statecraft cannot afford given the pressing problems that it needs to resolve in a world of perpetual crisis and insecurity." Tuvalu's rationale for securing the visit of a UN Secretary-General seems to jar with Constantinou's statement. The motivation for Guterres visit focused on emotional, affective reasoning as opposed to the transfer, or collection, of information. Notably, 'seeing' Tuvalu is presented as an embodied experience, which should alter his views as through the embodied practice of sight, Guterres' will have a more situated knowledge of climate change. Pratt and Rosner (2006, pp.17) argue:

> "to speak of the intimate takes us onto a different map or perhaps entirely beyond the visual register of map reading. If the god's-eye view of the global is visual because it is based on principles of distancing, the intimate comes in close and supplements the visual with a host of other sense experiences: sound, smell, taste; the ways bodies and objects meet and touch; zones of contact and the formations they generate".

Through, the intimacy of his visit, the Tuvaluan Government hopes that Guterres have a different world view. However, his visit also served a more pragmatic role for Tuvaluan digital and public diplomacy. With a significant social media presence, Guterres tweeted

during his visit accompanied by an image of himself looking out of a military plane at Funafuti's islets (see Figure 14). This "view from above" echoes the aforementioned discussion on participant's journeys to PIF.

The Tweet originally presented here cannot be made freely available via ORA because of copyright. The Tweet was sourced at: GUTERRES, A., 2019a. *Further inaction on climate change is simply not an option* [Online] Available at: https://www.ft.com/content/6e4c2f40-812d-11e9-a7f0-77d3101896ec [Accessed 3 June 2020]

Visually striking, the image is framed by the plane, which alongside his comment of being "on the extreme frontlines of the global climate emergency" reinforces the militaristic message of the "fight" against climate change. Public diplomacy is a key platform for Tuvalu, but there are limitations. With little online presence and only four overseas missions, it relies on international media. Lono, MFATTEL's Permanent Secretary, stated:

> The media is very important - to have the Prime Minister of New Zealand being interviewed on the narrowest part of the island. That is really symbolic. To have the UN Secretary-General standing in front of the beach in his suit. All this is very important, I think the media really plays an important role (Interview, Lono, 29/08/2019)

Lono stresses the role of bodies and visual diplomacy within Tuvalu’s public diplomacy. During the Forum, Jacinda Arden was interviewed on the causeway seemingly surrounded by ocean. Lono’s reference to the UN Secretary-General refers to the photograph of Guterres standing in his suit knee-deep in the lagoon which was the cover of Time Magazine in June 2019 (Figure 15).

The image originally presented here cannot be made freely available via ORA because of copyright. This image was sourced at: WORLAND, J., 2019. *The Leaders of These Sinking Countries Are Fighting to Stop Climate Change. Here's What the Rest of the World Can Learn* [Online] Available at: https://time.com/longform/sinking-islands-climate-change/ [Accessed 3 June 2020]

Guterres' out-of-placeness in his formal suit creates a powerful image conveying the severity of climate change. Situating this body, emblematic of the UN, at the perceived precarious climate space of Tuvalu serves as a powerful piece of public diplomacy. Captioned with "Our Sinking Planet", the photo serves as a visual trigger of Tuvalu's imagined inundated future amalgamating the imaginary of "sinking islands" with the

scalar link between Tuvalu and the world. In representations of Tuvalu, there has been a politicisation of the edge, the imagined boundary between land and sea, through the creation of “riskscapes”; multi-layered landscapes of spatial risk that are superimposed upon the perceptions, knowledge and imaginations of people that inhabit that space (Yarina and Takemoto, 2017). By occupying this riskscape, Guterres illustrates how Tuvalu’s struggle, ultimately, is the plight of the planet. Neumann (2019, pp. 465-66) contends that “diplomatic work is more than work with words. It also involves the visual work of manipulating cultural visual codes — in the receiving state, in the sender state, and, ultimately, globally. The more presentable the diplomat, the higher the visibility, and the higher the visibility, the larger the room to manoeuvre regarding other work”. Guterres’s whiteness, Europeanness, maleness and Western attire, performs this ideal of diplomatic presentability, thus maximising the visibility of water and the potential implications of rising sea levels. Through his clothing, he embodies the argument that the West is as vulnerable to climate change as the atoll states; in contrast, an islander in traditional dress would have reinforced ideas of climate change as a distant phenomenon affecting the Global South.

Alongside the Time article (Worland, 2019), Guterres wrote an opinion piece in the Financial Times (Guterres, 2019a) as well as promoting his visit on social media (see Figure 14) (Guterres, 2019b) which received significant international coverage (Perrone, 2019; Lyons, 2019b; ABC, 2019). However, its effectiveness remains uncertain with other Pacific Islanders critical of the visit. Senior Tuvaluan diplomat George, speaking about the visit’s impact, stated:

> I think it is too early to say. I haven't seen any substantial shifts as a consequence of his visit…at the moment I am not sure where that will play, I was reading some commentary today from a Samoan saying it was offensive for a palagi to present the concerns of an island country. It should have been someone from Tuvalu standing in the water. Interesting perspective… but maybe missing the point of the significance of having a secretary-general on the front page of Time magazine. You would not have got a Tuvaluan on the front page of Time (Interview, George, 08/07/2019)

Questions of representation arise here; George highlights how other Pacific Islanders have described the act as offensive. Pacific voices are already absent from many debates on climate, with Pacific islanders spoken on behalf of. To what degree should the environmental degradation and challenges of Tuvaluans be represented through a Palagi (white man)? Although this act raises the profile of Tuvalu, it to a certain degree reproduces the "otherness" of Tuvalu in which its issues are only able to be highlighted by a Western man. As illustrated by George there is a question of balancing the pragmatic approach of diplomacy with broader ethical and moral questions. If the bodies of diplomats are representative sites, should Tuvaluan diplomacy depend on a Western body to represent its struggles?

Jones and Clark (2019, pp. 1264) contend that "diplomats are articulators and practitioners who bring the state into being through their performances". However, it is not only formal diplomats involved in this performance. Through the situating of children within the water, Tuvaluan diplomacy has sought to bring perform one articulation of the future Tuvaluan state into being. Farbotko et al. (2016) argue there is a sense of

sedentarism and rootedness within Tuvalu, and a reluctance to accept or perform climate-driven migration as an acceptable future narrative. By placing bodies in the water, Tuvaluan diplomacy has played this narrative out to its conclusion. McConnell (2020, pp.9) argues that "central to the aesthetic of the sublime is the experience of whelming grandeur and dislocation from the everyday". Whilst, the natural beauty and overwhelming presence of the ocean provide that grandness, it is not dislocated from the everyday but provides a visual performance of a future "everyday" through the body. Climate change is made visible through the body. Utilising the natural environment as a site of visual diplomacy, the precarity of particular bodies have been made visible performing Tuvalu's vulnerability.

7.5 Conclusion

Although synonymous with global climate change, the voices of Tuvaluan and i-Kiribati diplomats and politicians are often absent from imaginaries of these 'sinking' states. Through a consideration of their climate diplomacy, in this chapter I have explored how the use of bodies, emotions and visuals have been utilised by atoll states to communicate their positions and seek to shape wider discourses. I have addressed the deficit of scholarship on small island state diplomacy through an examination of the climate diplomacy of Kiribati and Tuvalu. However, more broadly than just contributing to understandings of small island state diplomacy, in this chapter I shed a light on the role of the body, the visual and emotions within the processes and practices of climate diplomacy. Through paying greater attention to the body as a key site in climate diplomacy, geographers can better conceptualise how performances are used to make climate change visible to diplomacy.

Serving a discursive purpose, emotions are used to frame geopolitical responses in climate negotiations. Humiliation is perceived as downplaying the ability of atoll inhabitants to shape their future, whilst dignity is invoked to assert their agency. Whilst so-called 'rational' scientific facts, models and predictions are enrolled in sinking narratives to close-down atoll future, emotions open up the possibility of continuity. Emotional diplomacies are perceived as being incompatible with technical discussions, but their significance disrupts the privileged position of scientific knowledge within climate negotiations. This is not to say scientific knowledge is insignificant, but that emotions interact with, and enhance, scientific knowledge within the realm of diplomacy. To better understand the geopolitics of climate change, it is key to examine the spatiality of these emotions. Critical geopolitics has deconstructed broader climate geopolitical discourses, such as the securitisation of so-called climate refugees or militarisation of the Arctic (e.g. Chaturvedi and Doyle 2010, Dittmer et al., 2011), but it must be more attentive to how future geopolitical imaginaries are performed in the present and made visible in particular spaces of diplomacy. Particular sites, spectacles and bodies are emotionally charged through certain narratives, such as sinking, to perform particular futures. In doing so, this draws attention to now only *who* can speak on behalf of small islands but also *how* diplomats and politicians speak.

Within geopolitical discourses, emotions serve more than just a discursive purpose; they also frame the perceptions, opinions and thoughts of diplomats through the embodied practices of diplomacy. Encounters within diplomatic spaces, and how diplomats understand these spaces, are embodied experiences. Tuvaluan climate diplomacy has focused on the affective experiences of diplomats, illustrating that it matters how diplomats experience and perceive spaces. Diplomacy is not merely about a channel of

communication, in an attempt to influence or negotiate with other diplomats or publics: it is a process in which states try and ensure diplomats *feel* compelled to act. It is only by being attentive to these emotional efforts that scholars are able unpack the diplomatic practices and processes of actors such as small island state diplomats. Jones and Clark (2019, pp. 1262) contend that “emotional registers link state claims with the human condition by lending immediacy, resonance, passion, and conviction to these claims. Performance thus has the potential to inspire, reinforce views or change opinions, and prompt imitation and emulation”. Through mobilising particular emotional registers, Tuvaluan climate diplomacy has sought to bring about swift and decisive action on climate change. Methodologically, this greater attention on emotions demonstrates the role of participant observation and in-depth interviews when researching climate diplomacy. Discourse analysis of speeches and documents often provides a sterile analysis excluding these affective elements.

These methodological approaches allow for insights into the embodied practice of diplomacy. Atoll climate diplomacy has placed prominence on the role of the body advocating to protect Pacific bodies from future inundation. Within diplomacy “the role of space has been shown to be crucial: producing, supporting and constraining individual performances and in doing so shaping the narratives and knowledges produced” (Craggs and Mahony, 2014, pp.415). It is not only the role of space that is crucial within these performances but how bodies are positioned within space. Climate change is an intangible, temporally-distance and somewhat abstract phenomenon that can feel detached from everyday realities. Bodies are used as sites in which climate futures are formed, making climate change visible to diplomacy. Youthful bodies temporally connect action in the present with their climate futures. Geographies of spectacle have been

mobilised through the out-of-placeness of bodies to create affective atmospheres within diplomacy. Different bodies have been involved within this prefiguration of an underwater future, emphasising how climate change transcend the dichotomies of local/global, present/future and Global North/Global South. Through situating the UN Secretary-General's body, dressed in a Western suit, in the water of Tuvalu, a spectacle was created that challenged hegemonic discourse of Tuvalu as marginal. Contrasting the authority of the UN Secretary-General, the use of Tuvaluan children reinforces the perceived powerlessness of Tuvalu to avert its fate without external "salvation".

Geographers should pay greater attention to how discourses of "saving" are mobilised within geopolitics. More broadly, bodies are often constructed as in need of "saving", from reference to civilian populations during conflict, young women at risk of trafficking and nonhuman bodies threatened by the wildlife trade. Salvation is invoked with reference to refugees, wildlife and in the context of religious conflict. Attention within this chapter has focused on the role of both divine and earthly bodies in the act of saving. Goldsmith (2015) argues Tuvalu has an astonishing grip on Western imaginaries of climate change with a symbolic role that has been co-produced by its leaders and external commentators. Through the interconnection of scales, diplomacy has been used to construct Tuvalu as a unique space thereby justifying efforts to "save it" whilst simultaneously presenting Tuvalu's fate as intrinsically intertwined with that of the planet more broadly. Saving is mobilised in a variety of ways, at a variety of scales from the body to the global, to speak to different audiences. Political geography should be attentive to how "saving" is understood and who is seen as the rightful saviour? Whilst questions of saving sometimes reinforce unequal power dynamics, Tuvalu's Government has attempted to subvert these by intrinsically linking the "saving" of Tuvalu with the

“saving” of the world. What Tuvalu is being “saved” from remains conveniently vague, be that the fossil-fuel-based capitalism, inaction from the global community or the changing climate itself. However, this flexibility serves the fluid and varied goals of Tuvaluan climate diplomacy. Consideration of this flexibility pertains to how climate diplomacy does not occur in a vacuum, instead, it is performed in particular places underpinned by particular power relations. Topographic anxieties of climate change are visualised in specific ways through bodily performances. Whilst bodies and space are used to disrupt hegemonic imaginaries of atoll’s futures, they can also reinforce them.

Chapter 8. Sinking Islands? Atolls as a Space for Understanding Climate Geopolitics

At first glance, atoll states seemingly provide the perfect representation for the global climate crisis. Bounded islands, barely above sea level, their existence at the perceived margins of the international system makes their apparent existential threat from the excesses of capitalism, consumerism and industrialisation all the more poignant. Building upon colonial imaginaries of island spaces, atoll states are represented as facing an overwhelming threat from rising global sea levels caused by emissions originating thousands of miles away in the West. Islandness is mobilised as a discrete characteristic allowing the complexity of the impacts of climate change to be reduced to a simple narrative of sinking. Misleadingly, the numerous atolls, reefs and islets that constitute the territory of these states are subsumed into a singular figurative "island of Tuvalu" or "island of Kiribati" further aiding this simplification. Embellished by verbs of "drowning", "sinking" or "disappearing" the island space is rendered a victim of the "incoming tide", the "rising sea" or simply "struggling to keep its head above water". Atoll futures are closed down, with inundation understood as a matter of not if, but when. Complex atoll geomorphology and responses to sea level rise, alongside uncertainty over future emission, are excluded from these imaginaries. Discursively, Kiribati and Tuvalu have become synonymous with the failure of global governance to manage the climate crisis and constructed as passive spaces of victimhood. Internationally, their visibility as symbols of climate change have been built upon simplistic but emotionally compelling, narratives of inundation which have simultaneously restricted and facilitated their domestic and international efforts to manage climate change.

Climate change is the most significant, all-encompassing and complex challenge that humanity faces in the 21st century. However, climate alarmism – the hyperbole of the immediacy, inevitability or magnitude of the threat – downplays the agency, voices and indeed silences those who will be most affected by climate change. Whilst climate change poses numerous, momentous challenges to Tuvalu and Kiribati, the future of these states, their islands and their people remains in flux. Within this thesis I have explored how narratives of inundation have shaped, and subsequently are shaped by, the imaginations, anticipations and negotiations of Kiribati and Tuvalu. Despite their shared histories and physical geographies, there are notable differences in the climate geopolitics of Tuvalu and Kiribati. Through a consideration of these differences, this thesis has contributed to understandings of how climate change is constructed as a threat and how these constructions are both appropriated and contested. There remains a fine balance to be achieved for politicians and diplomats from states vulnerable to climate change. On the one hand, the magnitude and the severity of the threat posed by the impacts of climate change should not be understated. On the other hand, if *overstated*, concerns about climate change can undermine contemporary economic development and adaptation endorsing fatalistic outcomes. As such, narratives of sinking are in some contexts resisted whereas in other contexts they are amplified. Domestic politics in Kiribati has seen these tensions play out through the contestation of migration as an adequate, or even acceptable, form of climate adaptation. The i-Kiribati population has rejected migration as an adaptive strategy as it lent credence to a future in which inundation is inevitable. Instead, economic development has been prioritised in Kiribati with climate change reframed as a barrier to development rather than an existential threat. Alongside this, development has also been viewed as a means to facilitate adaptation. In contrast,

successive Tuvaluan Governments have prioritised climate change as their top priority, consistently and unequivocally dismissing migration as an acceptable outcome. Domestic adaptation has been framed as the proactive approach of a responsible, sovereign independent state which seeks to maintain its autonomy. Simultaneously, Tuvalu's politicians and diplomats have also constructed the state as a cultural, political entity that faces an existential threat and requires "saving" from climate change by external actors – through the funding of adaptation and the reduction in global emissions.

As discussed in Chapter 6, ambitious adaptation projects, such as large-scale land reclamation or the construction of artificial islands, allow actors from atoll states to assert agency over their future, opening up multiple possible geopolitical futures and challenging the inevitability of inundation. Centred on the premise of extending, protecting or creating land these adaptive strategies are grounded upon the significance of land within Polynesian and Micronesian culture and concerns over its degradation due to climate change. Moreover, these land-based adaptation strategies reassert the territorial component of the Westphalians state and thus are presented as allowing atoll states to maintain their sovereignty. However, these projects remain restricted by a number of limitations. International funding bodies, such as the GCF, are reluctant to fund unproven or experimental projects and, for now, financing them unilaterally or by bilateral means, remains beyond the reach of atoll states. Small island states lack the technical capacity to implement projects of this scale. Consequently, diplomacy has proven a vital approach for states to try and not only increase ambition for global action on climate change but also to facilitate access to adaptation finance. Climate change, and its potential impacts, can seem temporally and spatially detached from the here and now. Through the intersection of emotions, bodies and the visual, atoll climate diplomacy has

sought to make climate change legible to diplomacy and bring about action through affective approaches.

In bringing together the themes discussed in the preceding chapters, I unpack how the spatialities and temporalities of climate change are reconfiguring the ocean-island-climate nexus. Secondly, attention turns to how adaptation and diplomacy are being used by Tuvaluan and i-Kiribati politicians and diplomats to contest the inevitability of inundation through the prefiguration of alternative climate futures. Thirdly, I contend that multiple forms of knowledge are enrolled through different bodies to challenge the role of science within climate geopolitics. Fourthly, I will consider the methodological implications of this thesis before examining the wider considerations of climate geopolitics in Tuvalu and Kiribati. Finally, I argue that topographic anxieties around climate change are unsettling the relationship between statehood, sovereignty and territory.

8.1. Spatialities and Temporalities of Climate Change: The Ocean-Island-Climate Nexus

The ocean forms a key component of regional, national and community identities within the Pacific. However, paradoxically, through ominous predictions of sea level rise, this foundational component of island identity has been reimagined as a potential existential threat to the states of Tuvalu and Kiribati. Through the construct of “sinking states”, the political futures of atolls have come into question. As argued in Chapter 5, there is a vertical geopolitics to sinking, in which the potentiality of future ocean-island-climate nexus is collapsed into a simple spatial imaginary of inevitable inundation. This imaginary downplays the uncertainty of future emission and feedbacks within the earth system, closing down the plurality of possible climate futures to render inundation unavoidable.

In doing so, the ongoing political technology of territory is disrupted, bringing into the question the future ability of the state to engage in acts of territorialisation. Thus, in this thesis I have argued that engagement with vertical geopolitics to theorise climate change and sea level rise must be attentive to these temporalities, as well as the spatialities, of environmental change. Childs (2018) has argued that three-dimensional geopolitics must also reach into the fourth dimension, considering how matter becomes transformed into resources in the context of deep-sea mining in the context of deep-sea mining in Papua New Guinea. In this thesis, I push further, arguing scholars must also consider how anticipated future oceanic transformations are understood, represented and translated into threats to contemporary political institutions and processes.

As explored in Chapter 5, narratives of sinking prioritise future inundation and the impacts of sea level rise over other impacts of climate change – such as increasingly frequent and severe droughts – which dominate the contemporary effects of climate change on atoll societies. Furthermore, “sinking” isolates the phenomena of global sea level rises at the locality of the island, resulting in a spatial disconnect between emissions and consequences thereby rendering island states responsible for managing the impacts. However, this spatial disconnect also has a temporal component, as historic and contemporary emissions from Western states are detached from the future inundation of atoll states. Consequently, questions of justice are brought to the fore, embedding emotion within the vertical geopolitics of sea level rise. Thus, as illustrated in this thesis through the experiences of atoll inhabitants, it is crucial to consider the role of emotions - such as humiliation, fear and dignity - in mediating understandings of the geopolitics of climate change. Narratives of inundation and sinking have been perceived by the i-Kiribati and Tuvaluans as humiliating, downplaying their sovereignty, reinforcing postcolonial

power relations, and restricting their ability to shape their own geopolitical futures. Spatial representations of climate change, such as sinking, materialise potential climate threats in particular ways. Consequently, this spatialised climate threat has mediated what adaptive measures are viewed as legitimate and acceptable in taking climate change. Adaptation is a political process, in-so-far as particular environmental changes are prioritised over others within adaptation efforts (Nightingale, 2017). However, this thesis contends that adaptation is also fundamentally spatial in nature. It is envisioned as a spatial process, a means to protect, and alter particular spaces in response to climate change. Intersecting this spatial process are particular temporalities, with their interaction influencing how adaptation is imagined. This is crucial because adaptation pays a key role in shaping, and contesting, how future climate change will affect communities.

8.2. Contesting Futures of "Sinking" in Atoll States

Whilst scholarship within geography has unpacked the resistance of Pacific Island States to migration-as-adaptation (e.g. Farbotko, 2010b; Farbotko and Lazrus, 2012; Farbotko et al., 2016) this thesis has explored how Tuvalu and Kiribati have sought to provide alternative adaptation pathways through in-situ adaptation. Climate change has been constituted as a spatial threat to the landmass of errors. Thus, concerns around future sea level rise have prioritised the role of land within adaptation projects in both Tuvalu and Kiribati. Land is fundamental to the construction of the identity of Kiribati and Tuvalu, with both i-Kiribati and Tuvaluans believing their land was created specifically for them by God and that land has multiple significant economic, cultural and social roles (Mortreux and Barnett, 2009; Hermann and Kempf, 2017). Alongside the ontological significance of

land (Herman, 2017), it has a political role in the ongoing construction of territory (Elden, 2010) thus as argued by Levine (2012) sovereignty is perceived as an empty concept if there is no land left to apply it to. Ergo, land reclamation, and the construction of artificial islands, is seen as a mechanism by which the state can be continued in perpetuity despite the environmental uncertainty. Illustrated through the Tuvaluan Coastal Adaptation Project (TCAP), such adaptation is seen as a means by which space and time become interchangeable. Reclaiming land from the sea is portrayed as a means by which creating space will delay, potentially indefinitely, a time in which migration due to climate change becomes unavoidable thereby disrupting the vertical geopolitics of sinking. Fundamentally spatial in nature, these projects move beyond the static defence of the atoll edge and see the proactive extension of the land into previous ocean space (Yarina and Takemoto, 2017). In doing so, these projects not only assert the agency and capability of islanders to remain in situ but also create new land to facilitate further climate adaptation – for instance ensuring food security through new agricultural sites. Through this reconfiguration of the ocean-island-climate nexus, islanders are seeking to build upon narratives of Pacific adaptability and resilience to changing environmental conditions. Resilience is invoked not to highlight a neoliberal project of individualism in response to environmental change, but to emphasise the long heritage of Pacifica people altering socio-economic systems in response to environmental change. As opposed to reinforcing market logics, resilience is seen as focusing on community, identity and traditional forms of knowledge.

As illustrated through Chapter 6 and 7, the land reclamation projects in Tuvalu and Kiribati, adaptation is both performative and prefigurative in nature. Ambitious adaptation projects, such as the Queen Elizabeth Park, prefigure a future in which the

sovereignty of atoll states is upheld, human rights are maintained, and the state continues to persist in situ. Reclaimed land becomes enrolled in everyday performances of future sovereignty, providing a space that is seen as ensuring the continuity of the state despite rising sea levels. The role of such spaces can be seen within diplomatic performances, such as the 2019 Pacific Island Forum, where spaces such as the Queen Elizabeth Park were used to perform the role of a state capable of participating within the international system despite the challenges from climate change and sea level rise. However, as noted by scholars elsewhere (e.g. Bordner et al., 2020), colonial dynamics limit adaptation ambitions, with international institutions and framework shaping, restricting and halting the adaptation projects desired by islanders. As illustrated by the frustration of the Funafuti Kaupule in their pursuit of funds to finance the construction of Falesuiti Ecological Island, the application process for adaptation financing allows donors and stakeholders in the Global North to shape, alter and halt adaptation projects pursued by communities in the Global South.

Rising sea levels can be theorised as a vital territorial conjuncture, in which the territorial future of the state is understood to be at risk (Smith, 2013). As argued in Chapter 7, bodies are used to make one possible future visible, through the body of the UN Secretary General stood in the lagoon or the playful bodies of children within the water, Tuvaluan climate diplomacy has made the watery presence of sinking uncomfortably present. In contrast, adaptation projects, such as artificial islands, serves as performative icons for an alternative future that resist the inevitability of inundation. Notably, both performances serve a diplomatic purpose, capturing the attention of the international media and increasing awareness of the potential impacts of climate change in Tuvalu. In the ongoing performance of the Tuvalu as a state vulnerable to climate change, the

discussion of artificial islands simultaneously illustrates the magnitude of the threat whilst also emphasising the desire of islanders to remain in-situ.

Scholars have described the preference of indigenous groups in the Pacific to remain on their lands as a form of voluntary immobility (Farbotko, 2018; Farbotko and McMichael, 2019). Moreover, Farbotko et al. (2016) have written about the geographic performance of sedentarism and rootedness within Tuvalu. However, whilst rootedness encapsulates the current policies, voluntary immobility and sedentarism suggest a degree of inactivity and inertia which does not reflect the assertive and proactive response of the Tuvaluan Government and Funafuti Kaupule. Instead, I have posited that there is a geographic performance of active sedentarism. Although the permanent emigration of Tuvaluans due to climate change is deemed an unacceptable future, internal migration, either to newly reclaimed lands or artificially constructed islands, is rendered an acceptable, or even positive, outcome. In order to understand this, the construction of place is key. Through the extension of existing land, or the creation of an artificial island within the lagoon of Funafuti, adaptation is seen as materially reproducing Tuvalu. When considering these large-scale projects, the ontological division between impacts and adaptation becomes blurred. Transformative uprooting of communities to new artificial land raises questions to what degree this is modifying existing practices and processes in response to climate change or building new communities upon new land. Indeed, embedded within projects such as the Temaiku Project and Falesuiti Ecological Island is a promise of modernity, of economic development. These adaptive projects are not merely seen as transporting existing socio-economic conditions but a chance to start afresh and build in increased infrastructure and wellbeing. Questions of financing are dismissed, with

sectors such as tourism enrolled as a potential source of funding despites its near nonexistence currently.

However, in the short term, these issues of practicality or affordability are insignificant, as these large-scale hard engineering projects offer an alternative to sinking at this vital territorial conjuncture. These projects offer hope that alternative geopolitical futures are possible, disrupting the temporality of inevitable inundation. Adaptation, however, is not a single act, a task that can be completed, but an ongoing process. Environmental conditions continue to change and hard-engineering adaptive solutions decay, deteriorate and are eroded away. Even large-scale projects such as TCAP are estimated to only have a lifespan of approximately 40 years, thus necessitating ongoing adaptation and reimagination of the future. Beyond just atolls, within this thesis I have illustrated the importance of considering the performative nature of adaptation, to resist, reinforce and co-opt geopolitical imaginaries of what futures are, or are not, possible. The ongoing process of adaptation can be used by state, and non-state actors, to challenge the contemporary status quo. The process of adaptation allows actors to articulate how future relations could, or indeed should, be configured thereby illustrating their political priorities. Moreover, it has contributed to the literature on adaptation and geopolitics by providing an in-depth case study of land reclamation and the construction of artificial islands in the context of the two SIDS in the Global South.

8.3. Beyond Science: Knowledge, Emotions and Bodies

Within this thesis I have argued that multiple, and sometimes seemingly contradictory, forms of knowledge underpin these contested futures. Scientific knowledge is held up by actors in the Pacific as an authoritative, and indisputable, justification for immediate and

comprehensive action on climate change from actors in the Global North. However, as argued in Chapter 5, the complexities of atoll geomorphology are lost within broader reductionist geopolitical narratives of sinking. As such, the hyper-visibility of atoll states as symbols of climate change – and the dependency of scientific knowledge in this ongoing construction – has led to atoll narratives being co-opted by climate sceptics. Recent research suggesting Tuvaluan atolls may not be inundated by sea level rise this century (e.g. Webb and Kench, 2010; Kench et al., 2018; Mclean and Kench, 2015) have been utilised by climate sceptics in the Global North to bring into repute the claims of scientists and atoll politicians. Indeed, it is the very qualities through which atolls have been used to communicate the climate crisis - their boundedness, low-lying terrain and vulnerability to a single simple and easily understandable threat – that have been used by sceptics to challenge the credibility of climate change. Since the early 1990s, apocalyptic predictions of inundation have dominated representations of atolls and research suggesting that islands are growing (regardless of the cause) provides a simple, seemingly scientific, counterargument. More broadly, certain spaces, such as the Arctic, feature prominently within collective imaginaries of climate change, propagated by media coverage forecasting a visible, and absolute change, by a particular point in time, for instance the forecasts of an ice-free Arctic summer in the near future (e.g. Borunda, 2020). If these futures fail to materialise, given their simplicity and absolutism, despite the uncertainty within scientific knowledge around climate change, they will be championed as 'proof' of the erroneous claims of climate scientists.

Through bringing the inundated future of Tuvalu into question, the broader impacts of climate change have also been brought into refute. Australian politicians have suggested climate change is ruse to mask ulterior motives to increase development aid and facilitate

access to Australian labour markets. These dismissive voices have reinforced Pacifica perceptions of Australia as a neocolonial actor in the region, disinterested in concerns around climate change. Consequently, as discussed in Chapter 7, this has created a geopolitics of humiliation through which Tuvaluan concerns are downplayed, dismissed and disregarded. Crucial, in this geopolitics of humiliation, is the exclusion of Tuvaluans from the knowledge production processes that created this research. Local observations of the changing physical geography of the atolls, knowledge of the disappearance of islets and changing sediment flows in the lagoon are not visible to the remote sensing methodologies utilised by foreign scientists. In doing so, papers published by Western scientists on the geomorphic futures of atolls are seen as overstepping the boundary between science and politics as they are co-opted to undermine Tuvaluan diplomacy and suggest alternative futures for the sovereignty of Tuvalu. Whilst Mahony (2014) has argued that the future of territory has shaped the Indian's state engagement with domestic and international climate politics, this thesis contends these discussions must be more attentive to the colonial and postcolonial territorial arrangements and institutions of knowledge production. Given its colonial history, Tuvalu's independence as a sovereign state, and its ability to conduct its own affairs, is a great source of pride for Tuvaluans. Thus, science produced within Western universities, which is seen as contradicting the lived experiences of Tuvaluans, is treated with suspicion and seen as illegitimate. So, in order to lend credibility to Tuvaluan local knowledge, there have been concerted efforts to amplify the voices of Tuvaluans within science at both a state and grassroot levels through initiatives.

Scientific knowledge, however, is merely one component enrolled in the ongoing construction of the geopolitical futures of atoll states. Emotional arguments have been

used to reinforce, challenge and subvert scientific predictions for atolls. Through the framing of pre-emptive migration as dignified, Tong's administration sought to offer a more hopeful future for the i-Kiribati population, subverting fatalistic future of the state's demise. Such optimism can also be seen in the planned artificial island in Tuvalu, the project is not only framed as a solution to climate change but as a mechanism to improve the livelihoods and standards of living of Tuvaluans. Faith and religion, cornerstones of Polynesian and Micronesian society, has been viewed as key in creating more optimistic futures. Political leaders have sought to gain support from religious leaders to lend credibility to their interpretation of scientific research for the future of their states. Fair (2018) has argued that in the Pacific, religion can be co-opted in more-than scientific, but not necessarily anti-scientific, responses to climate change to create morally meaningful and locally relevant arguments. However, this thesis pushes further, arguing these morally meaningful and locally relevant arguments are also important in understanding the diplomatic strategies of Pacific Island states. Invocation of Noah, and the divine creation of Kiribati, have been used by Maamau to contest international narratives of sinking and give credence to the perpetuity of Kiribati despite the impacts of climate change.

Within imaginaries of atolls as sites of climate change, the focus has been on their physical geography – spaces of tropical beaches, lush vegetation and low-lying terrain – under threat from anthropogenic sea level rise caused by Western capitalism (Donner, 2015). As abstract spaces, doomsday climate predictions can be mapped onto and understood through an eco-colonial gaze (Farbotko, 2010b). If concern is raised for the human component, it focuses on the issues of sovereignty or broader security concerns for the region. Yet, what is absent from these visual imaginaries are bodies. Specifically,

the bodies of the Polynesian and Micronesian People who inhabit these spaces. When discussed, the inhabitants of atolls are dehumanised through anonymised discourses of climate refugees. Tuvaluan climate diplomacy has challenged these imaginaries. Geographies of spectacle have been constructed at the scale of the body, with children embodying the scientific predictions of sea level rise and the emotional anxiety for the future of the state. Throughout this thesis, I have identified the body as a key site of climate geopolitics in which disembodied narratives are made visible, contestable and knowable. Within broader scholarship in human geography on the geopolitics of climate change, scholars must continue to be more attentive to how geopolitics is made meaningful through the body.

8.4. Researching Climate Geopolitics in the Pacific

In order to prioritise the role of bodies, emotion and performance within geopolitics, it is important to be reflective of the research methodologies of geographers and social scientists more broadly. Scholarship exploring the diplomacy of climate change privileges particular methodological approaches often drawing on secondary sources such as transcripts of speeches and formal discussions at the UN alongside media such as newspaper articles (e.g. Farbotko, 2005; Jaschik, 2014; Bruner, 2017). Evidently, these have a place in understanding the intersection of space and power within discourses of climate change. However, what is often absent from these accounts are the voices, opinions, arguments, feelings and hopes of the actors who help produce, and are affected by, these discourses. Through a greater methodological focus on interviews and participant observation, there is space for these voices to come to the fore of geopolitical analysis. Within this research project, my interview discussions focused on a wide range

of these texts – from scientific research papers on Tuvaluan atolls, newspaper articles on sinking islands and speeches of Australian politicians - to understand how they are perceived, responded to and affect the broader geopolitical thinking of island elites. As such, I have sought to ground my analysis in empirics based on primary research.

As argued in Chapter 2, research on climate diplomacy at conferences has focused on a narrow range of institutions such as the UN neglecting the role of other organisations and space in climate negotiations. Through an exploration of the PIF, this thesis has thus demonstrated the value in extending scholarship beyond the UNFCCC processes and the annual COPs to consider the role of other conferences and spaces. Whilst these conferences may have a broader remit than just climate change, the climate remains a key issue and positions negotiated at these regional conferences are key steppingstones between annual COPs. Scholars such as Kuus (2013) have highlighted the logistical and intellectual difficulties of conducting ethnographic fieldwork in the context of foreign policy. Though conferences remain ephemeral and temporary spaces, they offer an opportunity to deploy ethnographic techniques within foreign policy. Alongside in-depth interviews and textual analysis, conferences ethnography provides an opportunity to gain new insights into climate diplomacy and the ongoing construction, contestation and propagation of geopolitical discourse. Conducting conference ethnography allows greater attentiveness to the roles of emotions, bodies and performance – all components which exceed the written accounts of transcripts and reporting. Whilst this argument for a greater role for ethnography in political geography is not new (see Megoran, 2006), I call for a refocusing of work in critical geopolitics on climate change and diplomacy to utilise the ethnographic techniques at conferences to understand the roles of bodies, emotion and performance.

Naturally, there are limits to this approach to research. Key negotiations take place behind closed doors and accreditation depends on the careful building of research networks and rests of the whims of states who act as gate keepers. However, attendance at the conference provides insights into the speculation and gossip that surrounds the closed meetings. Moreover, research must extend beyond just the formal spaces of diplomacy to consider the broader role in the construction and contestation of geopolitical narratives of climate change. Initially, I intended to include an extended ethnography with a climate NGO in Kiribati with me volunteering for the Kiribati Climate Action Network. However, due to the political sensitivity of climate change in Kiribati following Maamau's election and the expulsion of climate researchers, this was not possible. Nevertheless, it is crucial for scholarship in critical geopolitics to be attentive to the role of community leaders, NGOs and faith groups in shaping and resisting understandings of climate change.

8.5. Wider Considerations: Continuity and Change

On September 9th, 2019, Tuvalu held a general election. Within Tuvalu's electoral politics, there are no political parties and Tuvaluan MPs are elected as independents. Although Prime Minister Enele Sopoaga was returned to the Tuvaluan Parliament as an MP for Nukufetau, he was unable to secure the support of sufficient MPs to retain the premiership and on the September 19th, Kausea Natano an MP for Funafuti, became the 13th Prime Minister of Tuvalu (Wasuka and Weedon, 2019). Tuvalu remains the chair of the Pacific Island Forum, and as yet, Tuvalu's approach to climate diplomacy appears mostly unchanged under Natano. It has continued to maintain a high international presence. Attending COP25 in Madrid, Natano featured prominently within press

coverage leveraging his position as Chair of the Pacific Island Forum and describing his frustration with stalling of talks (RNZ, 2019c). In his role as PIF Chair, Natano has continued to stress the severity of climate change throughout the coronavirus pandemic, arguing at an extraordinarily inter-sessional summit of the Organisation of African, Caribbean and Pacific States that COVID-19 “offers the world a glimpse of what the global climate change emergency can become – if it is left unchecked and if ambitious action is not taken now” (RNZ, 2020d). Whilst Tuvalu rejected Chinese financial aid for the construction of an artificial island in late 2019, Natano has spoken publicly about seeking financial aid from the Japanese Government for such a project (RNZ, 2019b). Notably, under the Sopoaga discussion of artificial islands was focused at the sub-state level with the plans drawn up by the Funafuti Kaupule whereas now these are being embraced by the national government.

In Kiribati, Taneti Maamau was re-elected as President on 22nd June 2020 with 59% of the vote, only marginally down on his 2016 election when he was elected with 60% of the vote (Barrett, 2020). International attention during the election focused on Kiribati’s recent switch from recognising the ROC to the PRC (Pala, 2020a). Consequently, following Maamau’s re-election, Kiribati will continue to recognise Beijing and pursue the KV20 development plan and in-situ adaptation projects. In August 2020, Maamau gave his first interview following his re-election stating that Kiribati planned to secure dredgers in order to increase the elevation of the islands and the potential construction of an elevated bridge along the atoll (Pala, 2020b). Moreover, he has hired Paul Kench, whose research on atoll geomorphology has been so heavily disputed by the Tuvaluan Government. Kench has been recruited to advise on adaptation through systematic dredging (McDonald, 2020). Within these plans, Maamau identified the PRC as a key

partner whom Kiribati was seeking assistance from, whilst stressing that Kiribati would not be accepting large loans from any country. Scholars remain critical, firstly whether it is realistic that Kiribati will remain able to negotiate this support without conditions, such as loans or military bases, and secondly other the long-term viability of such a plan (Nunn and Kumar, 2020). Since Tong left office in 2016, Kiribati has been less present both regionally and globally on matters of climate change. However, it has successfully accessed climate finance evidenced by the South Tarawa Water Supply Project funded by the GCF. To what degree do SIDS such as Kiribati need to engage in substantial climate diplomacy, or can they ride off the coattails of more active states like Tuvalu? Moreover, given South Tarawa's repositioning towards Beijing, bilateral diplomacy may become increasingly important to access climate finance allowing SIDS such as Kiribati to bypass the time-consuming and bureaucratic applications to international multilateral institutions.

Throughout the 21st century the impacts of climate change in the South Pacific, and for low-lying islands worldwide, are predicted to accelerate and increase in magnitude (IPCC, 2019a). Droughts will become more severe and frequent; sea levels will continue to rise, and tropical storms increase in magnitude. Although a degree of environmental change is now "locked-in" due to historic emissions of greenhouse gases in the atmosphere and the lag times in physicals systems, the magnitude of these changes remains in flux. The success or failure of global efforts to mitigate climate change will have profound impacts for atoll states.

Multilateral institutions such as the World Bank, GCF and GEF continue to constrain some of the more ambitious adaptation projects, potentially leading to Tuvalu and Kiribati

seeking bilateral sources of finance. Wider international relations in the Pacific will continue to influence the diplomatic architecture and the ability of small island states to access climate finance for adaptation and mitigation. Classical geopolitical metaphors continue to frame to practical and popular geopolitics in the region, with a *New York Times* article in August 2020 stating that "the hundreds of sparsely populated islands in the Pacific occupy 15 percent of the globe's surface, sitting like scattered chess pieces right between the PRC, the United States and Australia" (Cave, 2020). Whilst the PRC's growing influence and increasingly large financial aid to the region is most commonly cited as a dominant factor in the changing climate finance landscape, it is a mistake to merely represent the Pacific as a chequerboard between Australia (or the West/United States[22]) and the PRC. A plethora of players, including states with historic or territorial interests in the Pacific such as the UK, France and New Zealand as well as emerging powers such as Indonesia, India and the UAE are increasingly active (Chandramohan, 2019; Brattberg et al., 2019). However, there are increasing calls for reform of climate finance to increase the ability of SIDS to shape their adaptation pathways. Alongside this, there is a growing assertiveness of civil society actors within the realm of climate governance, with states unable to fund large-scale adaptation projects through bilateral or multilateral pathways potentially turning to other potential sources of funding such as philanthropy. Merely speculatively, some participants mentioned offhand the potential of approaching high net worth individuals to fund the construction of artificial islands.

[22] Since Donald Trump's election in 2016, the role and influence of the US has been complex. The Pacific is seen as key geopolitical space to limit Chinese influence. Mike Pompeo was the first US Secretary of State to visit Micronesia in 2019 and Trump hosted the leaders of the Marshall Islands, the Federated States of Micronesia and Palau (all three of whom have Compacts of Free Association which expire in the next four years) (Robertson and Srinivaan, 2019; Packham and Barrett, 2019). However, the United States' domestic climate policy and withdrawal from the Paris Agreement has badly damaged America's reputation and soft power (Wyeth, 2020).

Both the populations of Tuvalu and Kiribati are predicted to grow and become more urbanised by 2050 (Bedford et al., 2016). Labour mobility continues to dominate regional discussions on trade, despite the rejection of migration within discussions of climate change. However, as demonstrated by Tong, there are voices within the Pacific calling for migration as an adaptive strategy. To what degree will this alter as environmental conditions deteriorate and the socio-economic and demographic pressures for migration continue to grow? Migration is not attributable to a single factor, and the role of migration as an adaptive measure in the future remains contested.

Within this thesis, the focus has been placed on particular actors; politicians, diplomats, policymakers and climate change specialists. Beyond these groups, it is evident that there is an everyday geopolitics of climate change present in both Tuvalu and Kiribati. Imaginaries of climate change have percolated into the social fabric, from talk shows on local radio, to the arts and crafts of children through to the omniscient presence of Climate Change Disaster and Coordination Unit truck on the streets of Funafuti. How has climate change become embedded within the everyday lives of islanders? Moreover, as sea levels continue to rise climate adaptation, such as land reclamation, will become increasingly prevalent and alter the physical geography of islands. How are perceptions of island space, and the futurity of this space, changing? Broader environmental stresses are often silenced with their cause attributed to climate change, even if the causation is weak or non-existent.

Human geographers must be attentive to how the complex multi-faceted and ongoing construction of the ocean is changing in relation to climate change. Understandings of the relationship between the ocean and climate change are multiple and often

contradictory. Due to environmental degradation, the ocean is viewed as under threat from climate change, at risk from coral reef degradation, oxygen depletion or acidification. Concurrently, the ocean is also constructed as a threat due to climate change with future sea levels under high emission scenarios not only a concern for atolls but also for densely populated regions such as the Mekong Delta or coastal Bangladesh and urban areas such as Venice, New York and London. Whilst sea level rise is a global occurrence, “sinking” is only mobilised in representations of particular spaces. Alongside the atoll states, “sinking” is commonly used in reference to the Indonesian capital of Jakarta. Whilst Jakarta does face rising sea levels, the description of “sinking” is far more physically accurate as the city is suffering subsidence over the past few decades due to the over-extraction of groundwater. However, Jakarta is not synonymous with the Indonesian state, the boundedness of atoll states has seen their islands become interchangeable with the nation-state, thus posing a more intriguing political, legal and moral issue. Particular verticalities are enrolled in some spaces but not others, with material and geopolitical implications as a result.

Despite their large EEZs both Tuvalu and Kiribati are among the smallest sovereign states in the world, by landmass, population and GDP. However, as sovereign states they are members of the United Nations and signatories to the UNFCCC. Across the Pacific, there are a range of polities with varying degrees of autonomy. Whilst some are signatories to the UNFCCC in their own right, such as UN non-member states Niue and the Cook Island, others are formally excluded like New Caledonia. One such excluded polity is Tokelau, a dependent territory of New Zealand. Tokelau consists of three tropical atolls and has a maximum elevation of 5m. Although it faces many of the same issues around sea level rise as Tuvalu and Kiribati, it is far less well known beyond the Pacific although within

New Zealand and Australia's domestic press it is frequently constructed as a "sinking island" (NZ Herald, 2004; Young, 2017). Although constitutionally foreign policy rests with the metropole state, Tokelau is tentatively engaging in forms of climate diplomacy in its own right, with representatives of the territory present at COP24 in Katowice. Tokelau presents an interesting polity to unpack the intersection of paradiplomacy and climate diplomacy, considering how non-state actors navigate the international architecture of climate governance.

8.6. Topographic Anxieties: The Future Sovereignty of Atolls

At the core of the discussion within this thesis has been the intersection of space and time. Historic, current and future emissions of greenhouse gases have caused, and will continue to cause, an increase in global temperatures which is responsible for the rise in sea levels. Complex uncertainties over future emission rates, feedbacks within global ocean-climate systems and the idiosyncratic response of atolls to sea level rise are silenced within simplistic, but powerful, narratives of inundation that render the future of atolls as set immovable and unchangeable. Imaginaries of sinking have closed down alternative futures, propagated within the international media and diplomatic negotiations, thereby suggesting that atoll states are beyond help. Temporality has specifically been intertwined with spatial imaginaries, namely the topography of the atolls. The physicality of the atolls, their shape, their geomorphological features, are all mobilised in relation to temporal uncertainty. There will not be a singular moment of inundation, of sinking, but increasingly common intrusions of the ocean as the sea level waxes and wanes on a daily, monthly and yearly basis based on the rhythms of the ocean. Given the social, cultural, economic and political significance of land within Pacifica

societies, potential future submersions create deep topographic anxiety. Emotional responses to climate change are provoked by, and intertwined with, anxiety for the future of their land. As discussed in Chapter 6, land has a key role within the identity of Pacifica people and thus sea level rise is viewed as existential threat to them and by extension, the state.

Through his conceptualisation of chronopolitics, Wallis (1970) discusses how the construction of the present as a time of transition, increases the political weight of decisions as they are perceived as irreversible. I have argued in this thesis that there is a particular chronopolitics at play, in which Tuvaluan and i-Kiribati politicians have argued that contemporary climate mitigation and adaptation is vital to determining their sovereign futures. Resistance to Migration with Dignity in Kiribati has framed the scheme as “giving up” on the future state of Kiribati, ergo suggesting that the pursuit of pre-emptive migration precludes future adaptive measure. Through the slogan “if you save Tuvalu, you save the World”, Tuvalu’s politicians and diplomats have firstly rendered Tuvalu as “saveable” and construed the present as a crucial moment in which the climate crisis can be averted. However, the object in need of “saving” is fluid within Tuvaluan diplomacy, with different geopolitical logics operating on multiple scales. Embedded within the everyday geographies of Tuvaluan life, notions of saving have become a promise to the population of Tuvalu that their government is pursuing proactive climate policies. At a regional scale, Tuvalu has become emblematic of the broader Pacific through the extension to “save Tuvalu, save the Pacific, save the World”. On one hand this approach has reinforced postcolonial imaginaries of Tuvalu as a marginalised small island state whose fate remains dependent on external support and action. On the other hand, Tuvalu’s politicians have shifted the focus from Tuvalu as a sinking state and

powerless victim of climate change, to a key space which not only can be saved – buts whose saviour is imperative to managing global climate change challenging postcolonial imaginaries of marginality. However, it remains unclear what constitutes the act of saving. Who, or what, is Tuvalu being saved from? Indeed, who is constituted within "Tuvalu" and who is excluded? More broadly, it raises the question what does it mean to save a state? As argued by McConnell (2016), stateness is uneven with its performance more visible in some spaces than others. When transformative environmental change brings the durability and viability of the state into question, these performances and processes come to the fore.

Land is understood as synonymous with territory; thus, inundation is seen as undermining the territorial integrity of the state, thereby posing as a threat to the future sovereignty of atoll states. Atoll leaders are anxious that this loss of sovereignty will undermine the autonomy and independence of their people. Consequently, the topographic anxiety has prioritised the pursuit of hard-engineering adaptation projects in both Tuvalu and Kiribati whilst migration has been dismissed as an unacceptable future. Reclamation of land, or the construction of new land, has been presented as a means of "buying time" thereby delaying the impacts of sea level rise and extending the durability of the state. Statehood is imagined to be timeless, based upon a shared history and mythology. Although states have been formed, reformed and dissolved, since the Peace of Westphalia, it is imagined that they will persist in perpetuity. Thus, in order to quell concerns for their future statehood, atoll politicians are envisioning artificial islands that are ten metres high, dwarfing even the most pessimistic of predictions of sea level rise thereby utilising an assertive vertical geopolitics to silence concerns over future sea level rise. Farbotko (2019) has argued the artificiality of new land does not address, in an

ontologically secure way, many of the emotions provoked by climate change. However, this research advocates that these projects serve a different purpose. Through the prioritisation of land, these projects disrupt the inevitability of inundation, thereby promoting a future in which atoll states are able to continue to replicate the sovereign-territorial Westphalian ideal. In doing so, atoll states are able to retain their position within the international system.

As described in Chapter 1, this thesis aimed to explore how climate change and sea level rise are represented in the construction of the political future of atoll states and to consider how sea level rise is imagined as reconfiguring the relationship between sovereignty, territory and statehood. Atolls are understood by Western academics, politicians and activists as spaces in which this relationship is under threat, with geographers interested in how climate change may lead to emergent, alternative political arrangements. These atoll states emulate the imagined sovereign ideal through their apparent discreteness and boundedness in which island territory and sovereignty are bundled into homogenous island states thereby reproducing the so-called territorial trap (Agnew, 1994). Inundation is normalised as a disruptive process which will weaken the territoriality of atoll states thereby challenging their place within the international system and the notion of "state territorial spaces as fixed units of secure sovereign space" (Agnew, 1994; pp.77). The state's durability is rarely conceptualised because the territorial state is seen as a brittle entity. Its territory is not slowly inundated or eroded away, states are imagined as persisting, collapsing or becoming hollowed out 'failed states'. However, this thesis has argued that atoll states have pushed back against these imaginaries of inundation incessantly eroding territorial integrity and prioritised anticipatory action that reproduces territorial-based forms of statehood. Whilst the

spectre of potential displacement is omnipresent, discussion of pre-emptive migration and deterritorialised statehood have been rejected, in favour of in-situ adaptation projects that are perceived as maintaining the territorial integrity of atoll states and facilitating the ongoing habitation of the atolls. New processes and practices are envisioned as maintaining the colonial export of the nation state in this moment of vital territorial conjuncture (Smith, 2013). Upholding the statehood of atolls is seen as crucial in retaining the independence and dignity of atoll populations. Nevertheless, these acts of independence, of adaptation and diplomacy, remain constrained by the postcolonial architecture of international relations and climate finance with atoll states dependent on international funding and support to implement adaption projects.

8.7 Topographic Anxiety Beyond Atolls: The Material and the Discursive

More broadly, this thesis advocates for the concept of topographic anxiety as a means through which geographers can approach the intersection between literature on new materialism; sovereignty, territory and statehood; and emotional geographies in the problematisation of political futures. Scholarship has argued that ontologically the state is constituted through specific practices and traditions (Jeffrey, 2013; Painter, 2006), however there is an acute materiality imbedded within these practices and traditions. Inundation is rendered as a material threat to the continuity of the state because it disrupts the future of these specific practices and traditions. Territory is not just understood as a bounded space or ongoing political concept; instead, this research argues that territory remains intrinsically connected and understood through the materiality of place. Sand, rocks and soil constitute the land onto which territory is performed. Anxiety is generated in relation to the material shifts of these components.

Through the absolutism of the "sinking island" narrative and the potential implications of the disappearance of atolls, the significance of land's materiality, and its role in the ongoing production of the state, comes into focus. Whilst socially constructed, the viability of the state is seen as tied to the ongoing security of the land – with this materiality a key component in the ongoing production of territory. Thus, adaptive measures in atolls have focused on practices which can abate the materiality of change, thereby facilitating future territoriality and alleviating anxiety. Adaptation must be understood as a spatial practice in which future anxieties around materiality are addressed in the present.

Nevertheless, the importance of materiality and its geopolitical implications (Clark, 2013; Dalby, 2013; Dittmer 2016) cannot, and indeed should not, be separated from critical analysis of geopolitical discourses, the politics of representation and the production of knowledge. Clark (2013, p.49) sets out that "the challenge of the 'geo-political' is not only about the way we negotiate our relationships with each other and with our environments, but also about how we collectively deal with the interface between what is and what is not negotiable". One questions who constitutes the "we" within Clark's argument. As illustrated by the controversy over the future of atoll states discussed within this thesis, this interface is not easily identifiable. Indeed, what is negotiable is in itself negotiable. Topographic anxiety is a frame through which to approach non-Western ontologies by placing the role of the emotion in environmental change at the fore of analysis. The concept of topographic anxieties encapsulates how the material shifts resulting from environmental change and their geopolitical representations are mediated through emotion. Thus, topography places the focus on the spatial, the landforms and features which are undergoing transformations within the Anthropocene.

In conjunction with topography, anxiety encapsulates the temporality of these concerns, stressing how alarm rests on the uncertainty surrounding the future topography of the state. Emotions are the key phenomena by which the changing materiality of islands is translated into a perceived territorial threat, reinforcing concerns for the ability of those affected by climate change to resist perceptions of victimisation. Browning (2018, p.339) argues that “existential anxieties about the unknown are frequently refracted onto tangible objects of fear that can be prepared for”. In this instance, existential anxiety is refracted onto the sinking island, a scenario which can be adapted to, prepared for and potentially averted. Cultural geographer Bradley Garrett (2020) discusses the activities of ‘preppers’ and their construction of bunkers in response to their anxieties about the future. He argues that bunkers are understood as “resilient spaces that are ultimately dread-resilient” (2020, p. 18). Bunkers hold a particular subterranean concrete materiality and are constructed in relation to unknown political futures. Artificial islands, with their own island materiality, are seen as spaces of resilience to unknown future climate instabilities. In order to theorise the relationship between environmental change, geopolitics and materiality, it is crucial to be attentive to the mediating role of emotions in understandings.

Moreover, these environmental changes do not occur in a vacuum but are situated within complex and emotional historical contexts. Memories of subjugation in the colonial past, and the loss of identity experienced through colonisation, are embedded within contemporary geopolitics. Colonial imaginaries of environmental change reproduce narratives of victimhood and disempowerment, playing down the agency of postcolonial actors thereby reinforcing these topographic anxieties.

A such, decolonising geopolitics must rest upon a greater engagement with the emotional to unpack the relationships between the material and the representative. Too often political theory represents concepts of statehood, sovereignty and territory as sterile and removed from the emotional frameworks through which they are understood. In order to engage with the emotional, I argue that diplomatic processes can serve a lens for understanding this relationship. Diplomacy is not merely a performative component of a sovereign present but also of a sovereign future. Bodies encapsulate these topographic anxieties, making visible the material threat to the population. Thus, through the utilisation of space and embodiment, bodily diplomatic practices can connect concern for material changes with broader geopolitical representations.

Beyond atolls, the concept of topographic anxiety can help geographers to understand the emotional politics of changing environments. In a semi-analogous context, anxiety over "melting ice" has been simultaneously rejected and seized upon by Arctic people in a similar manner to which "sinking islands" has been concurrently challenged and embraced by island communities. For Arctic people, loss of ice and melting permafrost is presented as a threat to cultural survival, self-determination and development. Material shifts in ice and permafrost are mediated through emotions and manifest as a geopolitical threat. Moreover, this topographic anxiety intersects with broader imaginaries of state. Emotions are key in constructing certain spaces as marginal, such as mountainous regions, borderlands or islands, where the state's sovereignty is often represented as being partial or contested. Environmental change is seen as an additional destabiliser, thereby further challenging state control in both the present and the future.

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Appendices

Appendix A: List of interviewees

Date	Pseudonym	Organisation/Position	Time	Location	Nationality
21/06/2018	Sara	European Embassy	64 mins	Embassy, Suva, Fiji	European
29/06/2018	N/A	UNDP – Resilience and Sustainable Development Unit at UNDP	34 mins	Offices, Suva	Pacific Islander
02/07/2018	Mark	Program Officer, Climate Change Projects, CROP Agency	57 mins	Organisation Office	British
02/07/2018	Jonathon	Multilateral Organisation working in Kiribati and Tuvalu	69 mins	Offices, Suva	European
03/07/2018	N/A	Asian Development Bank, Unit Head of Economics and Programming for Kiribati Project	74 mins	Marama Building, Suva, Fiji	European
04/07/2018	N/A	Fijian Lawyer	39 mins	Café, Suva	Fijian
05/07/2018	N/A	Former Ministry of Environment Employee, Kiribati	62 mins	Café, Suva	i-Kiribati
06/07/2018	Repeki	Small Island State COP Representative	19 mins	USP, Suva	Pacific Islander
09/07/2018	N/A	French Embassy	N/A	Email	French
09/07/2018	Matthew	PIDF	47 mins	USP, Suva	Pacific Islander
09/07/2018	Tony	PIDF	47 mins	USP, Suva	Pacific Islander
10/07/2018	N/A	French Ambassador	57 mins	French Embassy, Suva	French
11/07/2018	N/A	GIZ Project Director Marine and Coastal Biodiversity Management in Pacific Island Countries	75 mins	GIZ Offices, Suva, Fiji	German
12/07/2018	Carl	GIZ Advisor on Climate Change and Regional Affairs	50 mins	GIZ Offices, Suva, Fiji	German
12/07/2018	N/A	Urban Planner in Banaba	31 mins	Café, Suva	Fijian

12/07/2018	Dawn	Scholar and Activist from Kiribati	62 mins	Suva, Fiji	i-Kiribati
16/07/2018	N/A	Indian High Commission	N/A	Email	Indian
25/07/2018	N/A	Former employee of Kiribati Government	58 mins	Café, Suva	i-Kiribati
26/07/2018	N/A	Senior Academic at USP	45 mins	Café, Suva, Fiji	Fijian
13/08/2018	N/A	Asian Development Bank	38 mins	Suva, Fiji	European
21/08/2018	N/A	New Zealand High Commission	55 mins	High Commission, Suva, Fiji	New Zealander
23/08/2018	N/A	Japanese Embassy	N/A	Email	Japanese
23/08/2018	Tito	Senior i-Kiribati Diplomat	82 mins	Suva, Fiji	i-Kiribati
30/08/2018	N/A	Australian High Commission	49 mins	High Commission, Suva, Fiji	Australian
30/08/2018	N/A	Australian High Commission	49 mins	High Commission, Suva, Fiji	Australian
05/12/2018	N/A	Pacific Representative	11 mins	Pacific Pavilion, COP24	Pacific Islander
05/12/2018	Ahohaka	Kiribati Delegation	38 mins	Coffee Shop, COP24	i-Kiribati
05/12/2018	Iosefa	Pacific Island Development Forum	53 mins	Pacific Pavilion, COP24	Pacific Islander
06/12/2018	Maatia	Representative Tuvaluan Climate Action Network	31 mins	Pacific Pavilion, COP24	Tuvaluan
06/12/2018	Maevarau	Kiribati Delegation	63 mins	Russian Pavilion, COP24	i-Kiribati
08/12/2018	N/A	Fiji Delegation	15 mins	Pacific Pavilion, COP24	Fiji
11/12/2018	N/A	Palau Delegation	24 mins	Food Court, COP24	Palau
13/12/2018	Alofisula	Tuvalu Delegation	27 mins	Food Court, COP24	Tuvalu
22/07/2019	Teuleala	Freelance Consultant on Climate Change, Agriculture and Social Development	55 mins	USP Library, Tuvalu	Tuvaluan

23/07/2019	Faolui	Ministry of Environment	19 mins	Ministry of Environment, Tuvalu	Tuvaluan
23/07/2019	Li'iele	Ministry of Environment	20 mins	Ministry of Environment, Tuvalu	Tuvaluan
29/07/2019	Feagaiga	Ridge to Reef	35 mins	Partnership House, Tuvalu	Tuvaluan
29/07/2019	Sulu	FASNETT	17 mins	Partnership House, Tuvalu	Tuvaluan
29/07/2019	Roberta	US Volunteer	40 mins	USP Campus, Tuvalu	American
30/07/2019	Tuese	Ministry of Health	39 mins	Princes Margaret Hospital, Tuvalu	Tuvaluan
07/08/2019	Susan	Western Diplomat	37 mins	Tuvalu	Western Country
07/08/2019	George	Senior Tuvaluan Diplomat	87 mins	Vailuatai Lodge, Tuvalu	Tuvaluan/ Australian
08/08/2019	Himiona	Senior representative of the Funafuti Kaupule	92 mins	His home	Tuvaluan
08/08/2019	Sera	World Health Organisation	23 mins	Princess Margaret Hospital, Tuvalu	Fijian
08/08/2019	Viue	Environmental Health Officer	25 mins	Princess Margaret Hospital	Tuvaluan
14/08/2019	Benci	Carnegie Institute	1 hour	Topoka Islet, Funafuti	Hungarian
19/08/2019	Auiluma	Indigenous Local Knowledge Biodiversity and Climate Induced Migration Project Manager, TANGO	44 mins	TANGO Office, Tuvalu	Tuvaluan
20/08/2019	Kilipaki	Director, Department of Environment	62 mins	Ministry of Environment, Tuvalu	Tuvaluan
20/08/2019	Elika	Department of Education	26 mins	Curriculum Development Office, Tuvalu	Tuvaluan
20/08/2019	Kanaloa	Climate Change Consultant	31 mins	Partnership House, Tuvalu	Tuvaluan
20/08/2019	Tusi	Climate Change and Disaster	42 mins	Red Cross Office	Tuvaluan

		Management Officer, Red Cross			
27/08/2019	Vaipuina	Department of Rural Development	30 mins	Department of Rural Development, Tuvalu	Tuvaluan
28/08/2019	Taukelina	Senior Official in the Funafuti Kaupuele	69 mins	Kaupule, Funafuti	Tuvaluan
29/08/2019	Lono	Permanent Secretary of the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour	76 mins	Government Building	Tuvaluan
30/08/2019	Fafetai	Department of Climate Change and Disaster Coordination	34 mins	Partnership House	Tuvaluan
12/09/2019	Ilisapeci	Oxfam in the Pacific	63 mins	Oxfam Offices, Suva	Fijian

Appendix B: List of Participant Observation Events in Fiji and Tuvalu

Date	Event	Location	Notes
12/07/2018	Kiribati Independence Day	Holiday Inn, Suva	Diplomatic events – guests including the diplomatic corps and the Prime Minister of Fiji Drinks reception, speeches and performances
14/07/2018	Kiribati Independence Day	USP Campus, Suva	Held for the i-Kiribati diaspora in Fiji All day celebration including dancing, music and food.
25/07/2019	Tour of Taiwanese Vegetable Garden	Funafuti	Tour of approximately one hour. Agricultural garden funded, and staffed, by the Taiwanese ICDF. Focusing on food security and climate resilience
26/07/2019	Preparation for Youth Climate Day	USP Campus, Funafuti	Observing students preparing for the Youth Climate Day
28/07/2019	Drone Mapping in the Funafuti Conservation Area	Funafuti Lagoon	Shadowing a team from USP mapping islets and undertaking drone training
29/07/2019	Drone Mapping in the Funafuti Conservation Area	Funafuti Lagoon	Shadowing a team from USP mapping islets and undertaking drone training
31/07/2019	Tuvalu Fisheries Department, Whale Patrol	Funafuti Lagoon	Shadowing a team from the Tuvalu Fisheries Department who were concerned for two whales in the lagoon
31/07/2019	Drone Mapping in the Funafuti Conservation Area	Funafuti Lagoon	Shadowing a team from USP mapping islets and undertaking drone training
31/07/2019	Farewell Ceremony for Drone Volunteer	USP Campus, Funafuti	Ceremony of thanks for the American volunteer involved in the drone project
02/08/2019 03/08/2019	Youth Climate Change Forum	Funafuti	Two-day event preparing for the PIF and the UN Climate Change Summit
03/08/2019	Opening of the Conference Centre	Funafuti	Evening event, attended by approximately 400/500 people
03/08/2019	Closing Ceremony of the Youth Climate Change Forum	Funafuti	Followed on the Opening Ceremony
07/07/2019	Tidy up Tuvalu Public Holiday	Funafuti	Public holiday to prepare for PIF
12/08/2019	Climate Change Sautalaga	Queen Elizabeth Park	Full Day Event: Opening Statement Prime Minister of Fiji Statement by host Prime Minister of Tuvalu Panels including:

			“The Science of Climate Change” “Impacts of Climate Change on Health” “The Role of Climate Finance in Building Resilience” Climate Change Security and Governance, Energy Security, Climate Change and Oceans, Youth Initiatives and Climate Change
12/08/2019	Climate Change Sautalaga Cocktail Party	Queen Elizabeth Park	Attended by delegates, leaders absent for most of the evening due to negotiations
13/08/2019	Launching of the USPNet Satellite	USP Campus	Speech by the New Zealand Minister for Pacific Peoples
13/08/2019	Opening Ceremony for the PIF	Queen Elizabeth Park	Fatele, fireworks, banquet and speeches
13/08/2019	Dinner and Fatele at the PIF	Queen Elizabeth Park	Attended by all delegates
14/08/2019	Trip with Funafuti Kaupule to the islets of Funafuti	Funafuti Lagoon	Visited Tepuka – alongside delegates from PIF
14/08/2019	Arrival of Scott Morrison and Jacinda Ardern	Tuvalu International Airport	Welcoming party
14/08/2019	Launch Event of Pacific Portal Side Event	Queen Elizabeth Park	Attended by Australian Prime Minister Scott Morrison
14/08/2019	Dinner and Fatele at the PIF	Queen Elizabeth Park	Attended by all delegates
15/08/2019	Forum Leaders Dinner Reception	Queen Elizabeth Park	Attended by all heads of government/state
15/08/2019	Fatele	Queen Elizabeth Park	Attended by all delegates
15/08/2019	Press Conference with Scott Morrison	Queen Elizabeth Park	Impromptu event
16/08/2019	Tuvalu Food Futures Project	Funafuti Lagoon Hotel	Presentations of local food security projects
16/08/2019	Closing Ceremony of PIF	Queen Elizabeth Park	Fatele, dance display, fireworks, disco, speeches and banquet
20/08/2019-23/08/2019	Visit to outer islands of Tuvalu	Nui, Nukufetau, Vaitupu	Visiting climate adaptation projects, areas damaged by tropical cyclones and speaking to Tuvaluans

Appendix C: List of Participant Observation at COP24

Date	Organisation	Event	Notes
02/12/2018	Climate Tracker and African Development Bank	Daily Track	Overview of daily events at COP
02/12/2018	UNFCCC	People's Seat	Opening Ceremony – David Attenborough
02/12/2018	Munich Climate Insurance Initiative	Implementing Integrated Climate Risk Management approaches: A look through the Climate Risk Insurance lens	
02/12/2018	Pacific Islands Forum Secretariat	Pacific SIDS country perspectives in accessing climate change finance	Speakers included representatives from Kiribati
02/12/2018	COP23 Presidency and New Zealand	Official Opening of the Pacific and Koronivia Pavilion	
03/12/2018	COP24	Embracing Inclusive Multilateralism	High Level Event
03/12/2018	Pacific Island Development Forum + GLISPA	Island Resilience initiative	
03/12/2018	FAO	Climate is changing shouldn't the food system change too?	
03/12/2018	Norwegian Refugee Council, Arab Network for Environment and Development	Displacement, human mobility and climate change 2 years later	
03/12/2018	Unitarian Universalist Association, NPO Tuvalu Overview, Refugees International	Climate-Forced Displacement (CFD): Progress to Advance Human Rights and Justice Since Paris Agreement	Speakers included representatives from Tuvalu
04/12/2018	Ocean Pathway Partnership	Friends of Ocean Update and Moving Forward	

04/12/2018	Regional Pacific NDC Hub	Regional Pacific Nationally Determine Contributions	
04/12/2018	Climate Transparency	Who are the G20 climate leaders and laggards? Raising ambition through country comparisons	
04/12/2018	New Zealand MFAT, Massey University	"Subject to Change"	Film Premiere
04/12/2018	Future Ocean Alliance	Marrakech Partnership Panel - Under Pressure: Adapting to Climate Change in Ocean and Coastal Zones under 1.5C of Global Warming	
05/12/2018	Solar Head of State	Knowledge sharing between Pacific, Caribbean and Indian Ocean SIDS	
05/12/2018	Plymouth Marine Laboratory	The challenge of a changing Pacific Ocean: understanding impacts, observing networks and building capacity to inform policy	
05/12/2018	Pacific Islands Development Forum	Pacific 2050 Zero Emissions Pathway	
05/12/2018	Peace Boat Ecoship	Youth Engagement for Climate and Ocean	
05/12/2018	Ocean Pathway Update and Considerations	2019 IPCC Report on Oceans and Cryosphere	Diplomatic Reception afterwards
06/12/2018	DEFRA	New Scenarios to Inform Climate Risk	

06/12/2018	Because the Ocean Pacific	Because the Ocean initiative: incorporating the Ocean in NDCs	
06/12/2018	J Hunter Pearls	The Blue Pledge Sustainable Pearls - creating a sustainable circular blue economy	
06/12/2018	Asian Development Bank		
07/12/2018	International Alliance to Combat Ocean Acidification	From Knowledge to OA Action: Mobilizing Global Leadership to Advance OA Action Plans that Protect Coastal Communities and Livelihoods from a Changing Ocean	
07/12/2018	SPREP	Climate Change and Other Threats to the Marine Ecosystem	
07/12/2018	Secretariat of the UNFCCC	Needs-based Climate Finance Strategy in Melanesia	
07/12/2018	Office of the Pacific Ocean Commissioner	Understanding the Ocean-Climate Crosswalk: A Pacific Perspective	Prime Minister of Samoa
07/12/2018	UK Government	Marine Commonwealth Program	
07/12/2018	Global Ocean Forum	Formal Closing Event for Ocean Day Including Reception	
10/12/2018	SPREP		Representatives from Tuvalu
11/12/2018	Climate Change Division, Ministry of Economy Fiji	Launch of Fiji's National Adaptation Plan	Fijian Prime Minister present

11/12/2018	Governments NZ, France, Ireland, Australia and Netherlands	Act!on Agriculture: Agroecology: what is encompasses and how it implemented	
11/12/2018	FAO - UNDP	The farmers voice - organic agriculture, a solution grown from tradition	
11/12/2018	Department for Business, Energy and Industrial Strategy	Mission innovation and the role of clean energy innovation towards pursuing 1.5	
11/12/2018	High Ambition Coalition	Declaration	Press Conference
12/12/2018	Fijian Government	Launch of the Fijian planned relocation guidelines	
12/12/2018	Climate Vulnerable Forum	COP24 Press Conference of the Climate Vulnerable Forum with Partners	
12/12/2018	Canada and the UK	Powering Past Coal Alliance: Accelerating the Global Coal Transition	
12/12/2018	Commonwealth	Blue Charter	
12/12/2018	Pacific Island Development Forum	Technology Transfer in Transport Sector for Pacific Clean Transport Implementation	

Appendix D1: List of Online Secondary Sources

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Appendix D2: List of Secondary Sources from the Tuvaluan National Library and Archives

Document	Author	Date	Location
Climate Witness Community Toolkit	WWF – South Pacific Programme	N/A	Tuvaluan National Library and Archives
Climate Time Bomb	Greenpeace International	1994	Tuvaluan National Library and Archives
Pacific Climate Change Science Program: Current and Future Climate of Tuvalu	Tuvalu Meteorological Service, Australian Bureau of Meteorology, Commonwealth Scientific and Industrial Research Organisation, Australian Government: Department of Climate Change and Energy Efficiency	2011	Tuvaluan National Library and Archives
UNFCCC Project Highlights: Tuvalu WWF for a living planet	WWF Office in Fiji	2009	Tuvaluan National Library and Archives
Climate Change Displaced persons and housing, land and property rights. Preliminary strategies for rights-based planning and programming to resolve climate-induced displacement	German Federal ministry for Economic Cooperation and Development	2009	Tuvaluan National Library and Archives
International Climate Change Adaptation Initiative	Pacific Climate change Science Program	N/A	Tuvaluan National Library and Archives
Climate Change of Pacific Island Nations: The Bali Roadmap	WWF, EU	2008	Tuvaluan National Library and Archives
International Climate Change Adaptation Initiative Pacific	Kiribati Meteorology Service, Australian Bureau of Meteorology,	2015	Tuvaluan National Library and Archives

Climate Science Program Current and future climate of Kiribati	Commonwealth Scientific and Industrial Research Organisation		
Climate Change in the Pacific: Scientific Assessment and New Research Volume 2: country Reports	Australian Government	2011	Tuvaluan National Library and Archives
The Cultural Impacts of Climate Change: Sense of Place and Sense of Community in Tuvalu A country threatened by Sea Level Rise	Laura Corlew	2012	Tuvaluan National Library and Archives
Abaiang Island, Kiribati – A Whole-Of-Island Integrated Vulnerability Assessment	Pacific Community, SPREP, GIZ, Government of Kiribati, Kiribati National Expert Group	2016	Tuvaluan National Library and Archives

Appendix E: Selective Timeline for Kiribati

1979: Independence from the UK

1989: The UN releases a report on climate change stating Kiribati may be inundated in the 21st century

1999: Two uninhabited coral reefs submerged

2003: Election of Anote Tong as President

2003: Kiribati establishes diplomatic ties with the Republic of China (Taiwan)

2006: Establishment of the Phoenix Islands Protected Area

2008: Australia and New Zealand asked to accept Kiribati citizens as refugees

2010: Tarawa Climate Change Conference

2012: Purchase of Natovatu Estate in Vanua Levu, Fiji

2013: Ioana Teitiota failed in his attempt to become the world's first climate refugee in New Zealand

2016: Election of Taneti Maamau as President

2017: Temaiku Project showcased at COP23 in Bonn by the Kiribati Delegation

2019: Kiribati switches recognition from the Republic of China (Taiwan) to the People's Republic of China

2019: South Tarawa Water Supply Project is approved by the World Bank

Appendix F: Selective Timeline for Tuvalu

1978: Independence from the UK

1989: The UN releases a report on climate change stating Tuvalu may be inundated in the 21st century

2002: Tuvalu threatens to sue the United State for failing to ratify the Kyoto Protocol

2008: First version of the plans for Falesuiti Ecological Island

2009: Tuvalu's delegate Ian Fry walks out of the COP 15 in Copenhagen

2013: Second version of the plans for Falesuiti Ecological Island

2013: Enele Sopoaga is elected Prime Minister of Tuvalu

2015: Tuvalu is hit by Cyclone Pam

2016: Tuvalu Coastal Adaptation Project is approved

2017: Falesuiti Ecological Island is promoted at COP23 in Bonn by the Funafuti Kaupule

2017: Tuvalu Coastal Adaptation Project begins

2017: Queen Elizabeth Park in Funafuti is opened

2019: Tuvalu hosts the 50th Pacific Islands Forum Meeting in Funafuti

2019: Kausea Natano is elected Prime Minister of Tuvalu