Climate change, planned relocation and land governance in the Pacific region

Dalila Gharbaoui

A thesis submitted in fulfilment of the requirements for the Degree of

Doctor in Pacific Studies

At the University

of Canterbury,

New Zealand

-

Doctor in Political and Social Sciences

At the University of Liege, Belgium

Academic year

2019-2020

Pati Doi – Anua Magere (Our Beautiful Home)

Amari mange, abe kibala ma.
Masawako, kusuaki nge tago di ado.
Ugealako makasi lo kuteo ma
Rubem ba – ama ti – inare
Namam kira be kutaokama
Be anua tailalo. Kimaramama!

The sun is slowly setting on the horizon
Here I am alone in a foreign land, finding it difficult to survive
I look far across the sea to the horizon
You protrude firm and lonely
You were frustrated and chased us
We become drifters in another man's place

Anua Negu
Anua Nema
Aburoma omo dieno
Motu anua
Anua Moagere

My home
Our home
Our hearts are always with you
Our island home
Our beautiful home

– Basse, Papua New Guinea, 2015.

Table of Contents

List of Figures

Figure 37: Young Manam men in a care centre boil fish, yams and local greens in coconut milk for their visitors using traditional cookware as others look on. Traditionally women and girls prepare meals. In recent years, according to Manam residents, they have had more difficulty fishing and are often finding smaller and smaller fish between the mainland and Manam Island. This is likely to be a result of overfishing as well as the destruction of corals due to dynamite fishing, cyanide fishing, and the harvesting of coral

List of Acronyms

ACP – African, Caribbean and Pacific Group of States

ADB – Asian Development Bank

AIMS – Africa, Indian Ocean, Mediterranean and South China Sea

AIMS – Africa, Indian Ocean, Mediterranean and South China Sea

ANU – Australian National University

AOSIS – Alliance of Small Island States

APEC – Asia-Pacific Economic Cooperation

APC – Asia Pacific Consultations of Refugees, displaced persons and Migrants

APN – Asia-Pacific Network

AusAID – Australian Agency for International Development

BRICS – Brazil, Russia, India, China, South Africa

COP – Conference of Parties

ENSO – El Niño Southern Oscillation

ESCAP – Economic and Social Commission for Asia and the Pacific

EU – European Union

FAO – Food and Agriculture Organization of the United Nations

FSM – Federated States of Micronesia

GCF – Green Climate Fund

GDP – Gross Domestic Product

GEF – Global Environment Fund

GHG – Greenhouse Gas

HEC – Human Ethics Committee

IDMC – Internal Displacement Monitoring Centre

IDP – Internally Displaced Persons

IOM – International Organization for Migration

IPCC – Intergovernmental Panel on Climate Change

IR – International Relations

LMCM – Land Management and Conflict Minimisation Project

MECLEP – Migration, Environment and Climate Change: Evidence for Policy

MFAIC – Ministry of Foreign Affairs and International Cooperation

MTA – Ministry of iTaukei Affairs

NAPA – National Adaptation Plan of Action

NLC – Native Lands Commission

NZQA – New Zealand Qualification Authorities

PIDC – Pacific Immigration Directors' Conference

PCCM – Pacific Climate Change and Migration

PCCR – Pacific Climate Change Roundtable

PICL – Pacific Islands Conference of Leaders

PICTs – Pacific Island Countries and Territories

PIF – Pacific Islands Forum

PIFS – Pacific Islands Forum Secretariat

PM – Prime Minister

PNG – Papua New Guinea

PIR – Pacific Islands Region

REDD – Reducing emissions from deforestation and forest degradation

SIC – Small Island Countries

SIDS – Small Island Developing States

SIS – Smaller Island States

SPC – South Pacific Commission

SRDP – Strategy for Disaster and Climate Resilient Development in the Pacific

SOPAC – South Pacific Applied Geoscience Commission

SPREP – South Pacific Regional Environment Programme

TLFC – iTaukei Lands and Fisheries Commission

UK – United Kingdom

US – United States

USAID – United States Agency for International Development

UN – United Nations

UNCCD – United Nations Convention to Combat Desertification

UNCED – United Nations Conference on Environment and Development

UNCED – United Nations Conference on Environment and Development

UNEP – United Nations Environment Programme

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNDP – United Nations Development Programme

UNFCCC – United Nations Framework Convention on Climate Change

UNHCR – United Nations High Commissioner for Refugees

UNU-EHS – United Nations University-Institute for Environment and Human Security

USP – University of South Pacific

USAID – United States Agency for International Development

VRF – Vanua Research Framework

WHO – World Health Organization

Acknowledgments

This is the achievement of a long and fulfilling journey that meant a lot to me. Firstly, I would like to express my special appreciation to my supervisors; Thank you to Professor Steven Ratuva for his incredibly supportive supervision all through the PhD journey. I would like to thank him for being always supportive and providing encouragement for my research, Steven really allowed me to grow as a researcher. Thank you to my supervisor Professor Francois Gemenne, I have learned a lot since I have joined the University of Liege and it was a privilege to be part of the Hugo Observatory on Environment, Migration and Politics at its very first steps. I am also very proud to be a member of the Collective at the Macmillan Brown Centre for Pacific Studies at the University of Canterbury. It is an incredibly dynamic research centre that I can see only growing in the future. I will always remember that working in a professional environment is nothing without being surrounded by brilliant colleagues but also with exceptional human qualities and a director that is a real leader. Particular thanks to Karlyn, Sofia and Ashalyna who all made me feel at home from the moment I arrived in Christchurch and my NZ experience would have been completely different without you.

Secondly, I'm obligated to thank the Marsden Fund scholarship that made this project possible and allowed me to carry my research during the past three years. I am also honoured to be associated to the University of Canterbury and the University of Liege that have both been very supportive over the past years. Additionally, financial support from the Macmillan Brown Centre for Pacific Studies allowed me to attend academic conferences in Christchurch and Wellington. All this support significantly contributed to achieve my research goals.

I would like to especially thank everyone that has helped and supported me in Fiji for my field study; of course the customary chiefs, land owners and village participants but also the translators that were so helpful in accessing the communities, the drivers that patiently drove hours to find remote villages I was looking for in the Ba province and always waiting for me to ensure I was always safe. My family to always stand by myside all through the study in Fiji.

Finally, I have no words to express the level of gratitude I have for the sacrifices my

family has made for me to achieve this PhD. This PhD journey that started five years ago was life changing and I am so grateful that it has allowed me and my family to discover and then fall in love with beautiful New-Zealand where we have decided to settle and grow in the future. I am so grateful to have such an amazing family that have supported me all through the PhD journey and to all my friends thank you all for being there. A special thanks to my parents Abdellah Gharbaoui and Nouzha Fahim Lamarti that have migrated from Morocco at a very young age and have sacrificed their dreams and lives for me to achieve and grow. Thank you to Sohaib, my supportive and loving husband that thrived to make this journey happen, Jibril my big boy that always motivated me by being so proud telling his friends that his mum was "writing all the time on her computer to tell the world about people that needed help because of big storms" and Malik my sunshine baby that came to this world a couple of months ago. My beautiful sister Laila for all her amazing support and advices all the way from Spain and my brilliant brother Soufian that always found the time to help despite his busy life in Abu Dahbi. Without your unconditional love and support I would never have achieved so much; I hope you are proud.

Abstract

The adverse effects of climate change in the Pacific are increasingly forcing people to relocate in order to cope with the threats to their livelihoods. Relocations such as retreating from coastal areas in response to changing environmental conditions have long been a part of the adaptive strategies, culture and practice of Pacific Island communities. Relocation processes are particularly complex, as most of the land is under customary tenure and land is a common cause of conflict. Yet customary land tenure as a factor in relocation is seldom mooted in discussions on adaptation strategies in the Pacific. This dissertation explores the complex relationships between relocation and land tenure, in particular how cultural norms associated with land ownership impact on sustainability of population movements resulting from climate change in the Pacific, focusing on Fiji as case study. The conceptual framework explored on Hybridity and the use of Pluralism as aspect of Hybridity through the "nuanced approach" suggested that the interaction between state and community governance need to be captured through complex dynamics including tensions, challenges and synergies. One way of capturing those tensions and synergies is to look at theoretical frameworks that study barriers to the governance of adaptation such as Biesbroek's (2013b) theoretical framework. Key results underline the need to reframe the role of traditional community leadership in planned relocations through the "middle-ground approach to relocation", a "nuanced approach" where, rather than being limited to participation and consultation, their role in the relocation process should be central and active. The thesis proposes a re-conceptualisation of the role of traditional authorities in the relocation process and a conceptual framework including the "typology of planned relocation." It proposes to redefine the role of customary chiefs and land owners as central in land acquisition while considering "resilience," "perceptions" and "immobility" as key concepts for conceptualising planned relocation as an adaptation strategy to climate change in order to develop appropriate policy responses that would address challenges associated with land. Starting with the observation that the way land is accessed, negotiated and secured in planned relocation is central, results from our study suggest that land acquisition based on the "nuanced approach" emerging from the examination of pluralism as aspect of hybridity strongly echoes the need for addressing relocation through a "middle-ground approach". Both approaches are key to determine

mobility and immobility outcomes approached through Carling's aspiration-capability model (2002). Barriers that might undermine "ability" to relocate and therefore limit adaptation include "staggered or partial relocation" of the community to the new destination site that would leave part of the community "trapped" as "involuntary relocatees" in their site of origin and strongly affect community cohesion minimizing opportunities for sustainable relocation as opposed to "whole or full community relocation". After putting in perspective field study results with the political frameworks at work in the region, the study finds that regional governance is a promising venue to address planned relocation through the "nuanced approach to relocation" as it allows specific challenges and cultural features the region holds to be addressed, including specific issues surrounding customary ownership of the land, directly conditioning water access and security. The thesis also argues that land management in the context of climate-induced relocation in the Pacific would benefit greatly from a strong and coherent regional framework that would support national and local governance specific to each country. Ultimately, the dissertation provides specific policy recommendations that could serve as tool for future policy in the region while proposing directions for future research on climate change, human mobility and land tenure.

CHAPTER 1
Introduction

1.1   Overview

The earth's climate is changing faster than expected and sea levels are rising at a faster rate than envisioned. This poses challenges to Island States, coastal regions and Small Islands Developing States (SIDS) in particular, which are by nature already extremely exposed and sensitive to extreme environmental events. The Pacific Island Countries and Territories (PICTs) share some common features such as a high dependency on the Pacific Ocean and its resources; a relatively high exposure to natural disasters as well as high vulnerability to exogenous environmental and socio-economic changes. PICTs are often considered as a homogenous category of states as they share common vulnerabilities to climate change mostly attributed to their unique natural features. However, the relationships between changing environments, population mobility and ensuring land availability are highly sensitive and varied in the Pacific, a region recognized by many scholars as having considerable diversity in terms of population, size of economy, culture and geographical characteristics. The diversity of the Pacific Islands is not often represented in the public discourse, and in considering the issue of climate change, the alarmist discourse of the "sinking islands" dominates (Farbotko, 2005). Indeed, PICTs are at the forefront of the impacts of climate change. The continuous rise of emissions is leading to the loss of large parts of their territories, and confronts them with the potential loss of their culture, languages, identity and even citizenship. As a consequence, PICTs are often framed as 'canaries in the coal mine' or as 'laboratories of climate change' home to the 'first climate refugees'. Moving beyond the contested narratives of 'climate victims', this study aims to explore Pacific Island's adaptive capacities as 'laboratories of resilience' within the 'moving with dignity' framework actively advocated by Pacific leaders and civil society. Traditionally, retreating from coastal areas in response to environmental challenges has been used for generations by island communities and methods to cope with extreme environmental events have long been a part of their traditional knowledge, culture and practices. Today, the vulnerability of PICTs' fragile environments exacerbated by the adverse effects of climate change is increasingly

inciting islanders to move in order to cope with threats to their livelihoods. The relocation of people and entire communities is challenging to accept for those directly impacted and the receiving community. It is a particularly complex process in the Pacific where people are intrinsically connected to their land which reflects more than their personal spaces. Attachment to place in the Pacific is tied to customary land which reflects on communities' spirituality, identity, culture and history. The result of relocation may be the loss of shared social and cultural identities of particular importance for communities governed by customary structures.

The scientific body of literature on planned relocation as an adaptation strategy to climate change is gradually forming both in academia and policy. In the particular context of the Pacific region, challenges associated with land are central in addressing those questions. The consequences of climate change are inseparable from land issues in the PICTs and a strong body of literature on climate change and human mobility is gradually addressing more comprehensively issues around land tenure practices, community-based social protection systems, traditional governance mechanisms, local capacity and knowledge.

This research thesis will hopefully contribute to this body of literature and shed light on a range of conceptual discussions related to the role of customary land tenure in the relocation process. The research hopes to contribute to the existing scholarship on relocation process as both a policy and social process. Indeed, in our analysis, we will be interested in how the decisions are taken and implemented, as well as the people's experience of the relocation process. Observing planned relocation through these two lenses will allow us to have a more comprehensive understanding of the process. It is particularly essential in a study of the Pacific region where state-based policy is intertwined with customary governance mechanisms and social dynamics are an essential part of policy-making especially in addressing land-related issues. Climate change policies in the context of human mobility are gradually forming in the Pacific and this is a great opportunity to contribute to academic research in the field. Through this thesis, we will examine the interplay between customary non-state institutions and state-based governance in addressing land tenure and relocation as adaptation to climate change in the Pacific region, using Fiji as case study. Ultimately, we will examine whether this combination would allow governance of adaptation to climate change in the region to include local mechanisms of resilience, promote approaches to security based on Pacific

culture and avoid tensions occasioned by mobility caused by environmental events as well as backlashes occurring when customary land tenure is not considered in relocation processes. This approach aims to contribute to the body of knowledge on adaptation to climate change focusing particularly in generating peace, security and structural stability for future generations.

This dissertation relies on both desk and field research. Furthermore, over the course of my research I have engaged in several projects, conferences, seminars and workshops where I have exchanged ideas with scholars, scientists, political figures and experts. I have also published peer-reviewed articles based on my PhD chapters and findings (all referred to, used and cited in the thesis). Confronting other scholars and experts with my results also allowed me to reflect on the study in progress.

The following sections will present in more detail the research objectives, research question, research rationale and will introduce the theoretical approach that will be used in the thesis. The chapter will end with a section explaining how the chapter will be structured and how each chapter links to the thesis objectives and research question.

1.2 Research aims and objectives

The broad aim of the study is to critically analyse the social and cultural aspects of planned relocation as adaptation strategy to climate change in Fiji and some of the implications of this on land ownership.

The specific objectives of this thesis are:

a) To examine the process of planned relocation of communities as an adaptation strategy to climate change on the basis of an empirical case in Fiji;

b) To identify some of the challenges related to land tenure, land ownership and access as a result of planned relocation and suggest ways to overcome the difficulties associated with it in this process;

c) To understand the different relationships and synergies between the state and communities in the relocation process.

1.3   Research questions

The major research question of this thesis is:

a) How can planned relocation be conceptualized as an adaptation strategy to climate change using Fiji as case study?

b) What are some implications of relocation to land tenure, land ownership and access?

c) What are some dynamics, synergies and trade-offs between state and customary governance in the context of climate-induced planned relocation in Fiji?

1.4   Rationale for the research

There are a number of reasons why I have chosen to do my research on this topic and this study was inspired by a number of factors.

Firstly, climate change is now a major issue in the Pacific Islands and the situation is expected to get worse in the future. The process of relocation as a result of sea level rise, erosion and other natural disasters is already happening and is expected to intensify in the future. Secondly, while a lot of resources have been put into the study of the science of climate change, there are still gaps in the literature on its effects on people's vulnerability as they are forced to relocate. This is an opportunity to carry out a comprehensive examination of the issue with the hope that it will identify some challenges and contribute to scientific knowledge on the issue.

Secondly, in the coming decades, the adverse effects of climate change in the region are likely to exacerbate both slow and sudden-onset environmental events, threatening sustainable livelihoods and increasingly leading Pacific Islanders to use migration, displacement and planned relocation as adaptation strategy. The first two type of Human Mobility in the context of climate change will be addressed in the study but we have decided to mainly focus on addressing gaps in the literature on planned relocation as adaptation strategy to climate change. Climate change is expected to require the planned relocation of communities as regions become uninhabitable because of the effects of global warming. Literature commonly refers to two types of movement in relation with climate change: migration (adaptation) or displacement (failure to adapt). In this research,

we aim to explore a 3rd type of movement (relocation) and how it can be an adaptation mechanism. Indeed, while considerable attention has been directed toward the first two categories, there is still a large gap around planned relocations and community resettlement. (Warner & al. 2003: 31)

Scientific literature on Human Mobility in the context of climate change mainly refers to three categories of movement: (i) Migration, (ii) Displacement and (iii) Planned relocation (see Chapter 2 on terminology and definitions). Human mobility as phenomenon and discourse is widely viewed as "spatial processes that relate to space, place, territory, sovereignty, citizenship, transnationalism, borders, mobility and scale" (Mc Michael et al. 2020:1). Moving as a community is not new in the Pacific and relocation has been used for generations to face the challenges caused by extreme environmental conditions. Today, planned relocation is still a major form of Human Mobility for many countries in the Pacific, community-based relocation mechanisms and state-based political frameworks on planned relocation are well advanced in the region compared to other parts of the world also affected by the adverse effects of climate change.

Thirdly, while there has been a lot of focus on the role of international agencies and states, there has been very little research carried out on the role of local Pacific communities in developing resilience and adaptation strategies. Also, of importance is how these community-based systems can integrate with formal state approaches to provide a more holistic and diverse approach. The local culture in the Pacific is incarnated by customary traditions and community-based governance mechanisms are characterized by a communal and customary form of land ownership. This guided our choice to place at the center of our study local practices associated with customary land tenure systems while observing its interface with state-based mechanisms.

A major difficulty with planned relocation is the disarticulation of communities and social structures following the relocation process. This is particularly crucial in the context of the Pacific region where the link between social groups and their land are inseparable and define their collective identities. However, studies on climate-induced relocation on land rights and land tenure systems are still scarce in the Pacific. It has been given little importance in the literary and policy debates on adaptation strategies in the context of

climate change. Furthermore, land security is a major component of planned relocation as important features such as food security, water access, and social structure are directly relying on successful management of land ownership. It is crucial to address this dimension, particularly in the context of Pacific Islands where, in the majority of the countries, 80% of land is under customary tenure. The thesis will attempt to do justice to this deficit by exploring the literature, case studies involving past and recent examples of planned relocations in Fiji.

Fourthly, Fiji is a particularly good place to study customary mechanisms at play in planned relocation as the country counts most planned relocation projects currently taking place in the region while 87% of the land is owned by traditional Fijian *mataqali's* (tribes) (Charan et al. 2017). Furthermore, Fiji has been and still is very impacted by both slow and rapid-onset environmental events. In response to environmental impacts, planned relocation has been taking place extensively in the past and is well documented in the literature compared to other Pacific countries.

The choice of Fiji is also based on the facilitated access to affected communities all relatively accessible despite the environmental impacts. Fieldwork was based on the observation of community relocation that recently took place and some that are either ongoing or will take place in the future. Fiji allowed observing migration patterns more comprehensively as it was possible to find access to relocation projects taking place at various steps of the process.

Finally, the positioning of the country at the regional level is also an important reason behind our selection. Indeed, data collected was based on semi-direct interviews in villages affected by climate change. Fiji is therefore ideally located for this purpose. Fiji was also of interest as case study as the country is advanced in developing national tools to address planned relocation at the state level; it is, for example, the first country in the world to develop national guidelines on planned relocation. These guidelines will be used as main tool to guide our policy analysis. Observations that will be revealed by case studies in Fiji can be extrapolated to other cases affected by the same impacts of climate change. Some lessons on land tenure can also be shared in other countries where customary land prevails but the diversity of customary systems makes generalization impossible.

1.5   Theoretical approach

The thesis takes a double-lensed approach and study the relocation process through both a policy and social approach. Sabatier (2007:16) underlines the limitations of using single lenses and the value added when exploring policy questions from multiple perspectives. Yet many policy work continues to be conducted using a single lens, as analysts underestimate the value of alternative explanations and overestimate the explanatory power of the lens in use.

The double lensed perspective used in the thesis will first draw from recent governance literature and theory relevant to the concept of hybridity and pluralism in the context of the policy perspective (referring to how policies are framed in response to the need for relocation) and social perspective (referring to how people themselves engage with relocation).

1.5.1   The policy perspective

New forms of policies and governance are emerging in response to climate change. Policies on adaptation decisions are made across all levels of society. It is particularly the case in the Pacific where customary forms of governance coexist with State-based formal policies. Climate policies typically use a wide range of governance mechanisms and "Important aspects of climate policies include local level institutions, decentralization, participatory governance, iterative learning, integration of local knowledge, and reduction of inequality" (Dasgupta et al. 2014; Lavell et al. 2012; Cutter et al. 2012b; O'Brien et al. 2012; Roy et al. 2018). The Pacific region provides interesting grounds for observing and analyzing multilevel governance in the context of planned relocation as adaptation strategy to climate change and the role that local/traditional entities hold in this process.

We will critically engage with hybridity and examine the suitability in addressing interactions between formal and customary-based governance of climate-induced planned relocation in the Pacific.

For that purpose, the concept of plural governance systems in the Pacific have been explored. Legal pluralism can have varied impacts on governance outcomes, depending on the nature of the relationship between the governance systems involved. The literature

of such legal pluralist relationships will be explored to discuss and critically engage with hybridity. This theoretical approach will hopefully allow us to shed the light on some conceptual observations on planned relocation as adaptation strategy to climate change in the Pacific, using Fiji as case study and some of the dynamics, synergies and trade-offs that can be observed between state and customary governance in the context of climate-induced planned relocation in the Pacific.

1.5.2   The social perspective

From a social perspective, the "aspiration-capability framework" (Carling 2002) will be explored as conceptual approach particularly relevant for studying mobility and immobility as it provides the conceptual tools to analyses processes that lead to both mobility and immobility outcomes. Studies on environmental migration include an emerging and growing body of scholarly work on "trapped" populations that integrates immobility within the "mobility paradigm" (cf. Foresight 2011; Black et al. 2011; Black et al. 2013; Black & Collyer 2014; Murphy 2014, Zickgraf et al. 2016; Adams 2016; Nawrotski & Bakhtsiyarava 2016).   However, Zickgraf (2018) underlines that the growing interest for the conceptualization of "immobility" within environmental contexts has not been matched by empirical data and lack case studies that incorporate "immobility" in their research design. The relational dynamics of mobility are acknowledged by a spectrum of "(im)mobility" (Adey 2006). By studying planned relocation as adaptation strategy to climate change in our study, we aim to address those dynamics and bring more empirical evidences to the environmental migration scholarship through data collected in Fiji by addressing some of the empirical gaps of "immobility" studies.

1.6   Overview of chapters

In order to address these research needs, answer our research question, meet our main objectives and test our main hypothesis, this thesis will combine an exploration of scientific, academic literature and theoretical frameworks, an exploration of historical case studies, a compilation of datasets collected from the field and an analytical section combining both theory and policy with a final attempt to provide conclusions and evidence-based lessons for policy making in the Pacific region. The chapters will be

structured as follows

Chapter 2 (Framing climate change and planned relocation in the Pacific) will present a review of the literature that includes, first an attempt to clarify the terminology and definitions commonly agreed at the scientific level that will be used in the thesis. Secondly, the latest scientific literature on the impacts of climate change will be addressed with a focus on both slow and rapid-onset environmental events affecting the Pacific. Thirdly, we will address existing gaps in evidence-based research informing policy. Fourthly, we will critically engage with the Pacific regional scholarship on 'hybrid' approaches to legal issues and explore literature on 'plural' legal systems notably focusing on the environment and livelihoods in the Pacific. We will then clearly articulate how this research thesis adds to this scholarly knowledge. This approach aims also to allow discussing recognition of the shifts in meaning making that take place when undertaking trans- or inter-disciplinary work which will be discussed in our chapter 6 discussing our main results.

Chapter 3 (Understanding climate change and planned relocation, Empirical and conceptual issues) will critically engage with literature relevant to address planned relocation as a policy process and from a social perspective. Thirdly, it will address the literature on the impacts of climate change in the region and the adaptation needs and limits. Fourthly, the concept of sustainable relocation as an adaptive response to climate change will then be presented, including the current cross-disciplinary debates on climate-induced human mobility and relocation strategies. Then, the issue of land rights and land tenure will be observed through current prominent debates in the literature. Within this assessment, we will engage with literature on the land tenure systems in the region and consider ongoing scholarly debates between defenders of collective rights and proponents of individual rights. The foundations of these two camps have implications on how they characterize the relocation process. Finally, the conclusion will attempt to identify some key trends emerging from the literature on climate change, human mobility and land tenure with an aim to address current gaps and needs for future research. This review is essential in providing an overview of the core themes of the thesis present in the literature.

Chapter 4 (Theoretical approach) will present the theoretical framework used for the thesis. Relocation as both political and social experiment will be studied. This double

lensed perspective will first draw from recent governance literature. The chapter will present the three dominant philosophies in the study of governance: "the optimist", "the realist", and "the pessimist philosophy". We will observe Biesbroek's (2013) "four analytical lenses for studying barriers to the governance of adaptation demonstrating how these philosophies are operationalized". This will be adapted to the study of relocation and guide our understanding of barriers and enablers to adaptation through four empirically rooted analytical lenses. The chapter will then critically engage with the concept of "Hybridity" guided by a conceptual discussion around the concepts of "multilevel governance", "polycentric governance" and "Informal/Formal decision-making"; but also, through the lenses of scholarly work on "integrated", "syncretic" and "plural" legal systems in the Pacific. From a social perspective, the "aspiration-capability framework" (Carling 2002) will be explored as conceptual approach particularly relevant for studying mobility and immobility as it provides the conceptual tools to analyses processes that lead to both mobility and immobility outcomes. The methodology of the thesis will then be presented including the literature review and the field study methodology. It will also provide an overview of the key approaches used in order to answer the main research questions and test the main hypothesis. The methodology used for the selection of villages for the field study will be explained in detail as well as the participants interviews' selection criteria for the field study in Fiji. Ultimately, the thesis will critically engage in conceptual discussions around these frameworks that will be used to guide our analysis of data collected on the relocation process observed in Fiji. We finally discuss how each analytical lens frames barriers and enablers, synergies and tensions in a specific way. This theoretical approach will hopefully allow us to shed the light on some conceptual observations on planned relocation as adaptation strategy to climate change in the Pacific, using Fiji as case study and some of the dynamics, synergies and trade-offs that can be observed between state and customary governance in the context of climate-induced planned relocation in the Pacific. Pacific regional scholarship on 'hybrid' approaches to legal issues as well as a more systematic focus on scholarship and policy analysis on Fiji will hopefully allow for a recognition of the shifts in meaning making that take place when undertaking trans- or inter-disciplinary work that will be discussed in the last chapter of our thesis.

Chapter 5 (Human mobility as adaptation to climate change in the Pacific: An empirical and historical overview) includes desktop research and exploration of the latest scientific literature including technical and policy reports that are used in this chapter to understand the past and current challenges and impacts of climate change in the Pacific region including an analysis of human mobility and planned relocation as adaptation strategy to climate change. The chapter will assess the existing body of knowledge on migration, displacement, and planned relocation induced by slow and rapid-onset environmental drivers present in both academic and technical reports. Mobility has been used by Pacific Peoples for generations in order to cope with the adverse environmental impacts. This chapter aims to review the past and recent trends of human mobility in the context of climate change in the Pacific region while illustrating recent examples of planned relocation in the region. Finally, the chapter provides a set of lessons learned from examples of planned relocation that took place in various countries in the Pacific including Kiribati, Tuvalu, Solomon Islands and PNG. These lessons will be useful to use in the comparative analysis including examples of planned relocation taking place in Fiji illustrated in the last section of the chapter providing an identification of some trends by drawing out some commonalities and differences and whether or not these can be generalized across the Pacific, including Fiji. The section on Fiji will explore land tensions in the context of climate-induced relocation by combining desktop research and historical data to reflect on past examples of planned relocation as well as recent examples of relocation in Fiji. This method will allow us to reflect on some of the key challenges related to land tenure and land security in the context of environmentally induced planned relocation in Pacific countries where customary land tenure accounts for more than 88% of land ownership. This chapter is also crucial in providing contextual background information on land tensions in the context of planned relocation in Fiji for the following chapter, which will provide an analysis of field data collected in the Fiji Islands. The variety of case study chosen in Fiji and other Pacific countries will help us approach the question from different vantage points and, in so doing, expose complementary dynamics that provide insight into the longer-term feasibility of relocations in the context of deeply culturally embedded customary land tenure regimes. Therefore, this chapter will present a comparative analysis of case studies and provide a series of trends and lessons useful to conceptually frame planned relocation as an adaptation strategy to climate change and the

role land holds in that process. This analysis will be useful in providing a contextual background to the next chapters exploring data collected through field study in Fiji. It will also be very useful to draw some lessons at policy level explored in Chapter 8.

Chapter 6 (Capturing communities' stories on Climate Change, Planned Relocation and Land Tensions in Fiji*),* presents the field study undertaken in Fiji in 2017. The hypothesis described in Chapter 4 tested all through the research emphasizes the central role of land tenure while arguing that customary authorities and institutions are legitimate governance actors that would facilitate the relocation process. The field study conducted tests this hypothesis and goes further by examining perceptions related to land in the context of climate change-induced relocation. The chapter will firstly present the villages studied through firstly; an overview of the selection criteria used and, secondly, by describing the sites studied, how they have been impacted by climate change and more details on the relocation process. Then, the data collection will be presented in more details including the methodology used and the main objectives. Finally; the community field study results based on semi-structured, narratives interviews and questionnaires with customary leaders, affected communities, and local land owners will be presented revealing key concepts emerging from the study that will be discussed and analyzed in Chapter 7.

Chapter 7 (Policy approaches to climate change and human mobility in the Pacific*)* discusses policy approaches to climate change and human mobility by reviewing first examples of good practice and referring to different policies and practices that address human mobility or planned relocation as adaptation strategy to climate change in the region. This review will be conducted on the basis of a systematic desk study. This review aims to provide an in-depth understanding of the political processes at work on climate change and human mobility in the region. Firstly, national processes on climate-induced human mobility will be reviewed including the national initiative on planned relocation undertaken in Fiji since 2014. Based on our results from our community interviews emphasizing on the central role of customary chiefs and land owners in land negotiation; we will assess how customary authorities are represented in the relocation guidelines and whether this framework can be an example of good practice at policy level in our Chapter 8 discussing our thesis results.

Secondly, we will review institutional frameworks and policies in place on climate change and human mobility at regional level of governance including regional cooperation with key partners such as the European Union and France. Regional frameworks on climate-induced mobility will be also presented including the Strategy for Climate and Disaster Resilient Development (FRDP) that is the main framework at regional level on climate change and human mobility. The FRDP also includes the issues around urbanization that does not appear elsewhere in the regional policy agenda. A section on urbanization will therefore highlight the need to place discussions on urbanization currently at the regional agenda at the center of discussions. Finally, sectorial mechanisms on land and conflict prevention at regional level have been explored including the Principles of Land Management and Conflict Minimization (LMCM) framework and the role of the Pacific Islands Forum (PIF) that is the regional entity leading the discussions on climate-induced mobility in the Pacific region.

Chapter 8 provides a discussion on the thesis results. After, having examined the micro processes on the ground in the previous chapters, this chapter aims to present the main conclusions of the thesis compounded in results from data collected in order to understand the frameworks and processes currently being developed on relocation in the region and understand how lessons and the conceptualization of planned relocation deriving from the thesis results could be framed within these processes. Discussing the results will be addressed at both the social and policy levels as explained in chapter 4 on theoretical approach of the thesis. We will observe the results presented in all previous chapters and discuss them in the light of our theoretical approach with the aim to draw some conclusion taking both a social and policy perspective and provide key insights to answer our main research question: "How can planned relocation be conceptualized as an adaptation strategy to climate change from a social and policy perspective using Fiji as case study?"

Finally, we will provide in **Chapter 9** the conclusions, a series of conceptual observations and trends observed all through the thesis that will also serve to provide key insights to answer our research questions. It will summarize the main research findings and also identify trends for future research.

CHAPTER 2
Framing climate change and planned relocation in the Pacific

2.1   Introduction

The question of whether human mobility can result from climate change has been studied in the literature since at least the 1970s (Dun & Gemenne, 2008). Since then, the body of literature on the climate change and human mobility nexus has been drastically growing (Gomez 2013:5). However, some authors underlined the need to develop more robust scientific evidence as the subject is still fragmented and lacks empirical findings (Raleigh et al., 2008, Bardsley and Hugo, 2010, Piguet et al., 2011, Gray and Bilsborrow, 2013). The multi-causal nature and complexity of human mobility as it relates to climate change is particularly significant in the case of slow-onset environmental changes such as sea level rise and land degradation. It is particularly the case in the Pacific region where environmental vulnerability often involves challenges associated with land ownership and security of tenure. Population movements have always been an essential part of Pacific history. Most literature on human mobility in the Pacific region has focused on triggering factors such as poverty or conflict while the environment-migration nexus has only started to be studied more in-depth in recent decades. The frequency and intensity of natural disasters and slow-onset events such as sea level rise has significantly increased in the region, triggering the need for further studies on the issue from a wide range of disciplines.

The main purpose of the present chapter 3 and chapter 4 is to identify the body of literature where we hope to make a contribution and what our contribution will be. It will present how our contribution will be different or how we will build upon the existing body of literature on climate change, human mobility and planned relocation. For that purpose, we will provide a critical engagement with the recent key literature. Therefore, we will provide a panoramic view of the different ways the link between climate change and human mobility has been addressed in the existing scholarship while providing an assessment of the soundness of the data and analysis used and the arguments made in relevant research studies. This is to provide a conceptual grounding to the theoretical

framework and ensure that theoretical positions, methodologies and country contexts are clear. We will draw particular attention on placing the research discussed within the context of its location as we are referring to a variety of countries. Given the importance of the context and the diversity of these different places, we have ensured to draw relevant inferences from different articles. Locating the country context of studies and being aware of the slippage between 'The Pacific' and a particular country – like Fiji is essential to provide a nuanced and comprehensive overview of the vast literature existing on climate change, planned relocation and human mobility. Again, in terms of location, we have emphasized on the sizable literature on Fiji that needs more emphasis as Fiji is the main case study of our thesis.

Therefore, this chapter devoted to a review of the literature will first attempt to clarify the terminology and definitions notably on climate change, human mobility, land tenure commonly agreed at the scientific level and which will be used in this thesis. Working with grey literature from the IPCC, Pacific Island Forum Secretariat (PIFS) has been useful for framing the problem but for the purpose of our thesis, we have been drilling down into the scholarly work that is the basis of the grey literature. When the terminologies and definitions are going to be taken from grey literature rather than scholarly studies, we have provided a rationale and the values and shortcomings of this approach. Secondly, the latest scientific literature on the impacts of climate change will be addressed with a focus on both slow and rapid-onset environmental events affecting the Pacific. Thirdly, we will address existing gaps in evidence-based research informing policy. Secondly, we will address existing gaps in evidence-based research informing policy. Fourthly, we will critically engage with the Pacific regional scholarship on 'hybrid' approaches to legal issues and explore literature on 'plural' legal systems notably focusing on the environment and livelihoods in the Pacific. We will then clearly articulate how this research thesis adds to this scholarly knowledge. This approach also allowed discussing recognition of the shifts in meaning making that take place when undertaking trans- or inter-disciplinary work which will be discussed in our chapter 6 discussing our main results.

2.2 Terminology and definitions

2.2.1 Pacific Islands Countries and Territories (PICTs)

Throughout this research, we will be mostly using the term 'Pacific peoples' defined as "a broad category encompassing a variety of Pacific Island nations and communities who are linguistically, culturally and geographically distinct from each other" (Health Research Council 2014: 2-3). Even though Pacific people in New Zealand are very different to Pacific people in the Pacific – and notable exclude people from the Western Pacific,this is the recommended use of the term in Aotearoa/New Zealand, as Pacific peoples perceive their identity as inclusive of the Ocean "making them 'grand' rather than groups of tiny islands spread across the sea" (Pacific Research, Guidelines and Protocols: 2017 Hauofa: 1994, 2000). The term 'Pacific Islands' is therefore considered too restrictive and Pacific nations are considered in the research as the 16 countries and territories named the Pacific Island Countries and Territories (PICTs), covering various ethnicities, languages, cultures and religions, and including: Cook Islands, Fiji, French territories (New Caledonia, Tahiti, Wallis and Futuna), Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu. Pacific Island Countries and Territories (PICTs) share common features such as: a high dependency on the Pacific Ocean and its resources; a relatively high exposure to natural disasters; high vulnerability to exogenous environmental and socio-economic changes. PICTs are often considered a homogenous category of states as they share common vulnerabilities to climate change mostly attributed to their unique natural features. This should be nuanced as there is a considerable diversity in terms of population, size of economy, culture and geography throughout the PICTs that highly influence outcomes when addressing Human Mobility as adaptation strategy to climate change.

2.2.2 Planned relocation

In the past, anticipative measures and preparedness strategies to climate change in the Pacific, have essentially translated to planning for community relocation (Lieber 1977: 343) and rehabilitation (ADB 1998: 3). This chapter defines 'planned relocation' as the organized movement of a population generally conducted with the informed consent of the targeted community and planned by the government, its partners, or a regional entity.

It is accompanied by efforts to appropriately compensate the affected population and foster their ability to live sustainably and enjoy rights (de Sherbinin et al., 2010). Relocation may be considered 'displacement' if no such consent and compensation are given, for example, to enable private developers to exploit the land, or following the lawful evacuation of the community because of an imminent threat. Rehabilitation is equally critical for all affected communities, whether movement is temporary or permanent, and whether they find themselves in a new or familiar context. Resilience-building efforts must furthermore address the causes of forced migration in the region, including ensuring sustainable subsistence of the population and reducing the risk of subsequent displacement. Adaptation measures must be developed and couched within actions that would be taken even in the absence of climate change, due to their contributions to sustainable development.

Within the current state of knowledge, there is no internationally agreed terminology on 'human mobility' in the context of climate change. The issue of human mobility started to be discussed in the political realm of negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) from 2010. The first mention appeared under the Cancun Adaptation Framework that is often used as reference in scientific discussions on Human mobility as adaptation strategy to climate change. Paragraph 14(f) of the Cancun Adaptation Framework (decision 1/CP.16) constitutes the first mention of human mobility under the UNFCCC as follows: "Invites all Parties to enhance action on adaptation under the Cancun Adaptation Framework, taking into account their common but differentiated responsibilities and respective capabilities, and specific national and regional development priorities, objectives and circumstances, by undertaking, inter alia, the following: (f) Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels." (UNFCCC 2011).

Figure 1 below lists the relevant Conferences of the Parties (COPs), decisions and textual references to human mobility. It also illustrates the shift that can be observed, both in terms of the type of mobility that is considered and the actions that follow from this.[1]

2010 COP16 Cancun Adaptation Framework (decision 1/CP.16): enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation

2012 COP18 Approaches to address loss and damage (decision 3/CP.18): advance the understanding of and expertise on loss and damage, which includes […] How impacts of climate change are affecting patterns of migration, displacement and human mobility

2014 COP20 Adoption of the initial work programme of the Executive Committee of the WIM (decision 2/CP.20): *No direct mention in decision text. From initial work programme*: [e]nhance the understanding of and expertise on how the impacts of climate change are affecting patterns of migration, displacement and human mobility

2015 COP21 Adoption of the Paris Agreement – task force on displacement (decision 1/CP.21): develop recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change

2016 COP22 Adoption of the indicative framework of strategic workstreams for the five year rolling workplan of the Executive Committee of the WIM as contained in its 2015 report (decision 3/CP.22): *No direct mention in decision text. From WIM Report 2015:* migration, displacement and human mobility, including the task force on displacement

Figure 1: COP documents that refer to human mobility including year, event context and mandate according to text (verbatim) (Serdeczny 2017:5).

The Cancun Climate Change Adaptation Framework is commonly used at scientific level to define 'Human Mobility' in the context of adaptation to climate change. Paragraph 14(f) of the Cancun Climate Change Adaptation Framework, refers to three forms of population movement: *migration* as the primarily voluntary movement of persons; *displacement* understood as the primarily forced movement of persons, and; *planned relocation* intended as the planned process of settling persons or groups of persons to a new location (UNFCCC 2012). Such mobility can be within countries or cross-border, temporary or permanent (UNFCCC 2016). However, it is methodologically challenging to provide evidence that human mobility can occur exclusively in response to slow-onset events as multiple migration drivers need to be considered in the process. The Cancun Agreements use the term "slow onset events" to describe sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity, and desertification" (UNFCCC 2011). Within the scope of this study, slow-onset events mostly related to the Pacific region include sea level rise, salinization, loss of biodiversity and land degradation.

Working with grey literature from the IPCC has been useful for framing the problem but for the purpose of our thesis, we have been drilling down into the scholarly work that is the basis of the grey literature. The reason for this is that there are shortcomings in using terminologies and definitions taken from grey literature rather than scholarly studies. For example, Koko Warner (2012) explains that the inclusion of sub-paragraph (f) at the 16th Conference of the Parties in Cancun (COP16) was motivated by the fact that human mobility would then qualify for adaptation-related funding under the climate funding structure that was emerging at the time. Furthermore, Warner (2012: 1067) emphasised on the political motivation behind this inclusion explaining that "migration and displacement entered the discussion through particular strategic interests and views of two or more specific observer groups". Serdeczny (2017:5) confirms this view through her analysis of submissions made under this process showing that references to migration are made by a number of observers organisations but not by Parties. On this discussion, Warner (2012: 1068) confirms that "the major negotiating blocks place relatively little emphasis on the topic". We can see here how problematic it can be to rely mostly on grey literature in this thesis. We have therefore decided to use a terminology based on academic studies rather than grey literature while often referring to the grey literature to provide more practical context to conceptual discussions.

Therefore, this study will use a definition of human mobility based on Figure 2 below presenting an exhaustive definition of human mobility and *planned relocation* by McAdam & Ferris (2015). This definition has also been used by the Advisory Group on Climate Change and Human Mobility that provides technical support to UNFCCC Parties on climate change- induced population displacement, migration, and planned relocation.

Human mobility		
Displacement	**Migration**	**Planned relocation**
Situations where people are forced to leave their home or place of habitual residence. Displacement is usually associated with intensive risk, where the occurrence of a disaster event is the primary driver of movement. It can take place within or across national borders.	Movements which are, to some degree, voluntary. This is usually associated with extensive risk, and can take place within or across national borders. The decision to move is complex and often linked to multiple drivers, including but not limited to climate risk.	An organised relocation, typically instigated, supervised and carried out by the state with the aim of reducing (usually extensive) weather and climate risks. Ideally, planned relocation should be undertaken transparently and with the informed consent of, or upon the request of the community. It should also be accompanied by resettlement (the restoration of communities and socio-economic conditions) (McAdam and Ferris, 2015).

Figure 2: Human mobility and 'planned relocation' (McAdam & Ferris 2015)

In the literature resettlement and relocation often refer to the same process (i.e. moving one population to another place). In the Handbook of Resettlement (1998), relocation refers to the act of "rebuilding housing, assets, including productive land and public infrastructure in another location" which resembles the definition that Edwards (2015) provides on resettlement: "the reconstruction of houses and community buildings and the restoration of livelihoods." Relocation and the term evacuation must not be confounded. The latter refers to a temporary movement to a safer place (Campbell et al., 2015). For Lieber (1977) the term resettlement refers to "a process by which a number of homogenous people from one locale come to live together in a different locale". Perry and Lindell (1977) used the term relocates to describe the people who have been relocated. In order to facilitate comprehension, we will use 'relocation' to describe the permanent or long-term movement of a community to another place and 'resettlement' as the process of reconstruction of the community in another place. The resettlement is often a process planned by institutional entities; it can be both forced and voluntary.

2.2.3   Land tenure

In this study, 'land tenure' is framed along the definition provided by Leonard, R., & Longbottom, J.M. (2000:34):

> {…} land tenure is a legal term which refers to the right to hold land, rather than the fact of possession {…}. The term "foncier" in French comes from the Latin word fundus meaning foundation. As a noun it is used to describe land tenure relations and the structure of land ownership. As an adjective it may be translated as 'pertaining to the land'. In both cases, however, it has a wider scope than its usual English translation. The foncier can cover flora, fauna, and water systems, in so far as they are associated with an area of land [….]. In this sense, le foncier can be better equated with the term 'resource tenure'.

Our definition of land tenure emphasizes the need to consider "resources tenure", this was intentional as it would allow us considering specific aspects crucial to planned relocation such as "water access and security". Discussions of water tensions within the context of planned relocation as an adaptation strategy to climate change will often refer to 'water security,' which is defined in this research as: "The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio- economic development, for ensuring protection against water-borne pollution and water- related disasters, and for preserving ecosystems in a climate of peace and political stability." (Working Definition, UN-Water: 2013). When addressing 'human security', it is also important to be careful when referring to the term *'conflict.'* There are different degrees of conflict that range from simple tension to violence that can be both physical and psychological. According to Loode, et al. (2009):

> {…} conflict involves at least two parties who disagree over the distribution of material or symbolic resources or perceive their underlying cultural beliefs to be different", whereas disputes and tensions "arise where two or more people or groups who perceive their needs, interests or goals to be incompatible, communicate their view to the other person or group." Conflict has a larger scale whereas disputes are more interpersonal. Concerning land and water resources, a wide range of tensions can occur. Chapter 5 will observe some of those tensions in the context of planned relocation through field study undertaken in Fiji in 2017.

In our study, "land tenure" will also refer to a definition provided by the grey literature. Indeed, The Food and Agriculture Organization of the United Nations (FAO), a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security has extensively worked on land tenure and good governance as it is directly relevant to resources access and management ("resource tenure" was described as central for land tenure in our definition above). FAO's working definition of land tenure is useful to complement Leonard & Longbottom (2000) definition of land tenure illustrated above as it refers to the right to access land particularly relevant to study planned relocation. Indeed, FAO (2002:7) defines "land tenure" as "societal rules defining how rights to land are allocated, how control and access is granted, specifying conditions and rights for usage, rules for transfer in addition to limitations of use and responsibilities".

2.2.4   Customary land tenure

Customary land tenure is a form of land tenure owned by indigenous communities and ruled by their customs. Common ownership is a form of customary land ownership, it relates to the following duties and responsibilities: "The management group (the owners) have a right to exclude non-members, and non-members have a duty to abide by this exclusion. Individual members of the management group (the co-owners) have both rights and duties with respect to usage rates and maintenance of the thing owned." (Bromley 1989:872)

Since the late 20th century, statutory recognition and protection of indigenous and communal land rights continues to be a major challenge. The gap between formally recognized and customarily held land is a significant source of tension. In Fiji, customary tenure is formally recognized and protected. Customary lands cover 88% of the country land area, the rest being public land (4%) and freehold lands (8%) (AusAID 2008).

LMM-PICL-1TOT	Percent of Indigenous and Community Lands - Total	FJI	Fiji	2017	88% Customary Land
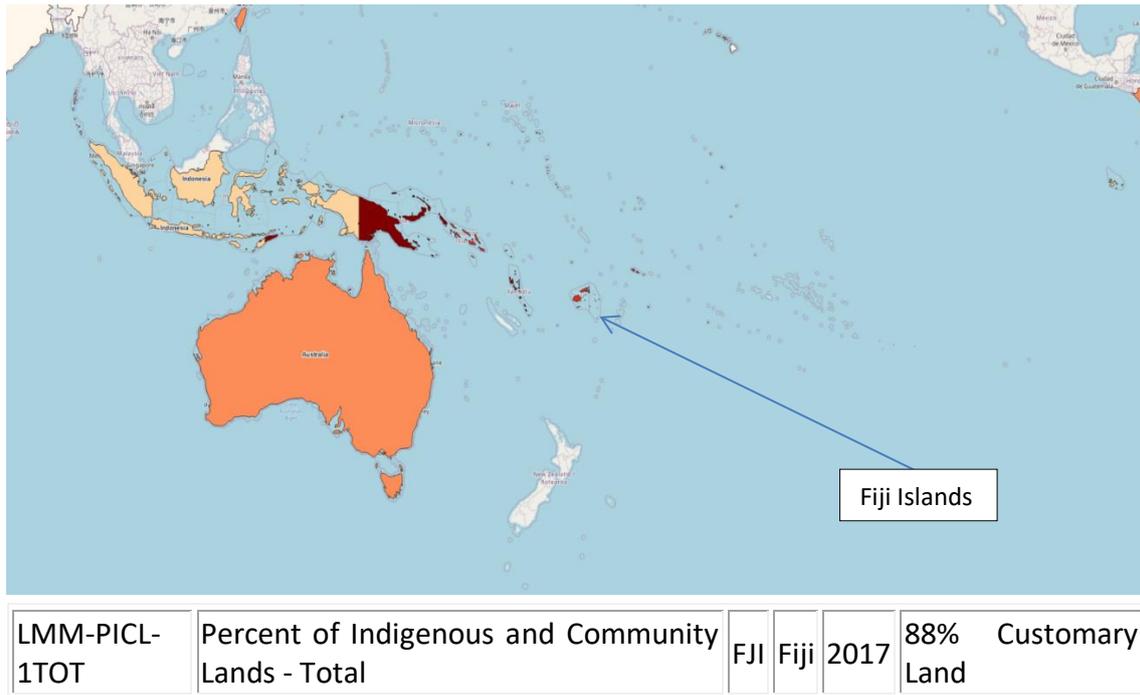
Figure 3: Percentage of Community Lands in Fiji and the Pacific Region (Land portal 2017)[2]

Customary tenure is extensively protected in the Fijian constitution or law, in this research we may therefore consider that all customary lands are formally recognized and protected in the country (which is not the case in many other regions where customary land prevails - see Figure 3 - Figure 4).
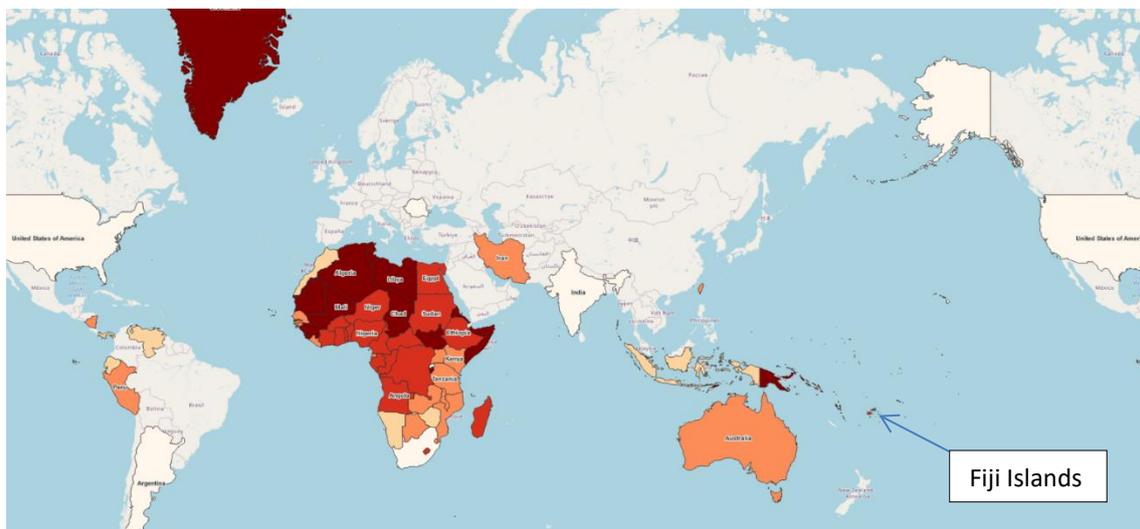
Figure 4: Estimate of the percent of total Indigenous and Community Lands - independent of recognition status - as a percentage of the country's total land area (Land portal 2017)

In the PICTs, over 80% of land is ruled under various forms of customary tenure (Farran, 2011: 65). Two concepts are of key importance; *Vanua* and *Dela Ni Yavu* (in many Pacific

languages). *Vanua* means both the land and the social system and *Dela Ni Yavu* concerns the physical embodiment of the land. These Fijian concepts will be used in this thesis as it applies well to our main case study: Fiji. However, we need to underline that those concepts do not cover the whole of the Pacific which has over 800 languages. Customary norms are far from being uniform in the Pacific region. Jolly (1992) for instance, compares Vanuatu's *kastom* (custom) with Fiji's similar *vakavanua* (way of the land). She argues that they are characterized by different articulations of times; *Kastom* is based on rupture and *vakavanua* on continuity of past and present. She observed that this impacted the way colonial land policies were conceived as well as the extent to which customary land tenure was acknowledged and codified in Vanuatu and Fiji. She finally acknowledges divergence in linguistic aspects in the Pacific and possible effects on the two different processes of decolonization.

2.3   Gaps in evidence-based research informing policy

From the early 1990s until today, the low-lying coastal countries known as the Small Island Developing States (SIDS) have progressively gained official recognition and international attention as a group particularly threatened by the adverse impacts of climate change in coming decades. Land use changes, burning of fossil fuels and greenhouse gas emissions from other sources are exacerbating climate variability and contributing to an increase in global average temperatures. It is likely this warming is compounding the phenomenon of rising sea levels in coastal and low-lying areas as well as intensifying the incidence and magnitude of natural hazards (IPCC, 2014a). The Pacific Islands Region (PIR), mainly composed of SIDS, faces increasing threats to survival in the coming decades due to loss of territory and other adverse impacts of climate change. As global climate change mitigation efforts prove insufficient to protect communities and ensure sustainable living conditions, population movements in response to these changes are a reality facing the Pacific Islands states today. Such movements include migration, displacement and planned relocations, as agreed, most notably, in the outcomes of the 2010 meeting of the parties to the United Nations Framework Convention on Climate Change (UNFCCC) and of the consultation on planned relocation held in San Remo[3] in 2014 (UNHCR 2014). Retreating from coastal areas in response to changing environmental conditions has long played an important role in Pacific Island

communities' culture and practices, with land rights at the centre of the process. The fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC) recognized that past examples in the region demonstrate that environmental change can affect land rights and land use, which in turn have become drivers of migration (IPCC, 2014a: 1625). Echoing this, the final report of the 3rd International Conference on Small Island Developing States underlined the importance of considering land use and land planning in the context of disaster risk reduction and sustainable development (United Nations General Assembly, 2014: 13).

In academic and policy debates on migration as a response to climate change, however, land rights and land tenure systems have been given little importance. It is crucial to address this dimension in more depth, particularly in the context of Pacific Islands, where around 80% of land is under customary tenure in the majority of countries (Farran, 2011: 65). Despite growing scientific evidence on the complex links between environment and migration, the lack of qualitative and quantitative data on the interaction between land tenure, land rights, water access and human mobility remains a major challenge. In order to address those gaps, this chapter will provide a state-of-the-art critical review of climate-induced human mobility literature, discourses and representations, with a specific focus on land tenure and planned relocation within the Pacific Island Region (PIR).

From the early 1990s until today, the low-lying coastal countries known as the Small Island Developing States (SIDS) composing the Pacific, the Caribbean and the Africa, Indian Ocean, Mediterranean and South China Sea (AIMS) 1 region have progressively gained official recognition and international attention as a group particularly threatened by the adverse impacts of climate change in the coming decades. Land use changes, burning of fossil fuels and greenhouse gas emissions from other sources are exacerbating climate variability and contributing to an increase in global average temperatures. It is likely this warming is compounding the phenomenon of rising sea levels in coastal and low-lying areas as well as the intensifying incidence and magnitude of natural hazards (IPCC 2014a). Some regions seem particularly vulnerable to those environmental events, making sustainable development more complex and difficult to achieve. The Pacific Islands Region (PIR) is one of these and will have to deal with the complexity of the climate challenge and develop strategies to overcome the threat to island communities.

The Intergovernmental Panel on Climate Change (IPCC) in its fifth assessment report released in March 2014 has recognized that the past experiences of the Pacific region show that environmental change can affect land rights and land use while change of land use has also become, in turn, a driver of migration. At the same time, the third International Conference on Small Island Developing States (SIDS) that took place in Apia from 1 to 4 September 2014 with the "Small Island Developing States Accelerated Modalities of Action (Samoa Pathway)"emphasized the importance of considering land use and land planning in the context of disaster risk reduction and within the scope for improvement of sustainable development in all regions mainly composed on small low-lying islands and threatened by sea-level rise. Land planning in the Pacific region has therefore been recognized as particularly crucial, as land degradation has been identified as one of the primary environmental issues placing pressure on natural resources in the SIDS.

Another important element to consider is the strong demand for more appropriate governance mechanisms by Pacific Islanders. Decision-making should further prioritize Pacific Islands' values in order to promote sustainable, equitable, and spiritual development of the region. The disconnection between stakeholders (resource users, developers, policy makers, communities) and the lack of information about climate change impacts tailored to the needs of the people needs to be seriously considered in future regional strategies on adaptation to climate change.

There is therefore a strong need for evidence-based research to support policy and there are gaps in the existing body of literature on relocation as adaptation strategy to climate change to support policy making. In 2008, the United Nations High Commissioner for Refugees (UNHCR) underlined that:

> The global discourse on the impact of Climate Change and environmental changes tends to focus on environmental and ecological effects and the direct economic costs of mitigation and adaptation for the affected states and their populations. Featuring less prominently on these debates is any concrete assessment of the risk of forced human displacement both within and outside physical territory of a sovereign state, and how to ensure durable, right-based solutions to this growing spectre {sic} of Climate

Change- induced displacement (UNHCR 2008).

The Intergovernmental Panel on Climate Change (IPCC) as early as 2007 also underlined this need, putting a particular emphasis on social vulnerability:

> There are significant outstanding research challenges in understanding the processes by which adaptation is occurring and will occur in the future, and in identifying areas for leverage and action by Government. {…} Many initiatives on adaptation to Climate Change are too recent at the time of this assessment to evaluate their impact on reducing societal vulnerability. Further research is therefore needed to monitor progress on adaptation, and to assess the direct as well as ancillary effects of such measures. In this context there is also a need for research on the synergies and trade-offs between various adaptation measures, and between adaptation and other development priorities. (IPCC 2007b)

In the context of the Pacific, which is particularly vulnerable to climate change, this topic started to emerge in the public arena around the same period and is still very poorly understood. South Pacific Regional Environment Programme (SPREP 2008) underlined this need as early as 2008:

> Past studies of adaptation options for small islands have been largely focused on adjustments to sea-level rise and storm surges associated with tropical cyclones. There was an early emphasis on protecting land through 'hard' shore-protection measures rather than on other measures such as accommodating sea-level rise or retreating from it, although the latter has become increasingly important on continental coasts. (SPREP 2008).

Human mobility is particularly understudied in the context of climate change and adaptation studies. Forced displacement, migration and planned relocation have emerged in the last decade as the three main categories of human mobility induced by climate change. Planned relocation is still poorly understood despite an emerging focus and a series of international meetings on the issue from 2011 to 2015 resulting in a concluding document on planned relocations, "Guidance for Protecting People from Disasters and Environmental Change through Planned Relocations." The document was developed by

Brookings Institution, Georgetown University and the United Nations High Commissioner for Refugees (UNHCR) and was directed at states and other stakeholders with the aim to provide guidance on how to plan relocation in order to protect people affected by climate change.

In 2017, another tool was developed by Georgetown University, UNHCR, and the International Organization for Migration (IOM), in close cooperation with the World Bank and United Nations University, entitled "Planning Relocation for people affected by natural disasters and environmental change," This toolbox aims to provide more concrete suggestions for states and other stakeholders using planned relocation as adaptation strategy. Five cross-cutting elements recurrent in planned relocations are identified in the toolbox: "Establishing and complying with an appropriate legal framework, understanding and addressing the needs and impacts of planned relocations on affected populations, providing information to, undertaking consultation with, and ensuring the participation of, affected populations, understanding and addressing complexities related to land issues, and undertaking monitoring and evaluation, and ensuring accountability." (Georgetown 2017). In the framework of my research for this PhD thesis, I was consulted for the section on land issues and some of my PhD findings and results were inserted in the toolbox.

Despite the existence of these two key tools, there is still a major gap in the literature. John Campbell (2015) has underlined the need for more data and evidence-based research on community relocation as adaptation to climate change with a particular focus on short-distance relocation that is already taking place in the Pacific region:

> Adaptation is now much more strongly on the Climate Change response agenda and a number of adaptation and community-based adaptation projects have emerged in the Pacific Island Region. Nevertheless, relocation remains a very poorly understood topic. {…} Community relocation has been subject to relatively little research and that which has been conducted has been skewed towards long-distance relocation virtually all of which took place in the Colonial era. {…} Much of the limited literature on relocation tends to focus on these longer-distance movements as shorter relocations are less obvious, are perhaps less attractive as objects of study for migration

specialists and often take place under relative obscurity. (Campbell, 2015: 7).

While there is a growing body of literature on land tenure and climate change, less attention has been paid to the implications of land tenure in planning for relocation as an adaptation strategy to climate change. There is still a gap in understanding cultural needs in relocation processes, including the role land tenure and traditional leadership can hold in this process. Land governance in the Pacific still needs a coherent framework including a solid understanding of the conditions for improving tenure security directly contributing to improve water and food security, cultural and social cohesion in the context of planned relocation.

Evidence-based research could be a starting point to support current developments in land management and conflict in the region and ensure that it is considered within frameworks and discussions on climate change and human mobility in the region. This is particularly relevant in a context where the main initiative around land security regionally undertaken by the Pacific Islands Forum Secretariat (PIFS), "Land Management and Conflict Minimization Project" (LMCM), endorsed by the Forum Regional Security Committee and the Forum Officials Committee in 2006, didn't extend to the current issue of Climate Change and Human Mobility and has not been inserted into regional frameworks. As a result, there is no regional framework on land governance in the Pacific that is comprehensive and inclusive of tenure security and the cultural aspect of customary land tenure in the context of climate change and climate-induced human mobility. Indeed, LMCM aims at understanding inter-linkages between land management and conflict minimisation, combining approaches related to conflict prevention and economic development. In 2008, this initiative resulted in ten sub-project reports all collected into a synthesis report focusing on "Improving Access to Customary Land and Maintaining Social Harmony in the Pacific." This report resulted in 12 guiding principles and an implementation framework providing governance in land management and planning to the Pacific Island Forum States while, at the same time, promoting an approach to land that would minimise land-related conflicts in the region. This initiative reflects the first important regional effort aiming at inserting concerns on customary land tenure into conflict prevention tools at an institutional level. It is also the first time that customary land tenure is officially associated with environment and conflict within a regional

framework as "{…} the recognition of the centrality of customary land tenure in the lives of the people of the Pacific is the key underlying principle upon which the LMCM project is founded." (Loode et. al., 2009:3). In the framework of the present research project, it is interesting to observe that the LMCM initiative includes only one synthetic report linking environment and land ("Environmental Causes of Land-based Conflict"). Furthermore, the review on environment and land includes only four countries in the region, namely: Fiji, Solomon Islands, Tuvalu and Vanuatu. The LMCM initiative mainly takes an approach related to conflict prevention and enters the framework of a security perspective. Therefore, the land- environment-conflicts nexus has started to be considered but there is still a strong need for the development of a regional implementation framework and guidelines which include the land- environment-migration nexus and incorporate local adaptation strategies.

Since the Australian government developed its own "Making Land Work" framework on the Pacific, LMCM has not been extended to current issues relevant to climate change, human mobility and tenure security. LMCM was partially funded by AusAid and did not get more funding after "Making Land Work" was founded. Since then, Food and Agriculture Organization of the United Nations (FAO) has been working directly with countries individually though SPC to promote land tenure principles existing in the "Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security." The Australian National University (ANU) regional meeting beginning 2018 on "Land and urbanization as regional issue" was an opportunity to promote LMCM's next stage and for stakeholders to bring climate change and human mobility nexus into the regional agenda. However, it wasn't pushed forward, and so future frameworks will need to address this dimension. Furthermore, there is a strong need to extend the scope of current similar regional efforts and to develop the region-specific adaptive frameworks that will be necessary to deal with the future threat of climate change in the region. It is also essential to ensure that adaptation strategies to climate change include customary land tenure as the unique unifying cultural elements of the region inherited through ancestry and local tradition.

2.4   Impacts of climate change in the Pacific

Although they are home to a high degree of cultural diversity, all Pacific Islands countries share a number of common features. These include high dependency on the Pacific Ocean and its natural cycles; a high degree of exposure to natural hazards; fragile natural, human and economic resources. The Pacific Islands Countries and Territories (PICTs) can be divided into various zones according to their size, resource endowments and the state of economic development (Hughes, 2005: 3). Each sub- region (specifically, Large High Islands or Melanesian Countries, Mid-Sized High Islands of Polynesia and Micronesia, and Small Islands) is affected differently by climate change according to its constituents' geographical, ecological or economic features.

Rapid population growth (particularly in urban areas, which are mainly coastal), scarcity of land, land degradation, deforestation, water contamination due to agricultural and mining activities, loss of biodiversity and deterioration of fisheries due to coastal reef decomposition are among the most common concerns. Increases in temperature, precipitation variability and sea level variation can significantly affect clean water availability (Zbigniew & Mata, 2007: 175; IRIN, 2008). Volcanic eruptions, earthquakes and droughts can also have devastating effects.

It is "virtually certain" that the rate of global average sea level rise has been accelerating since the 1950s, with the western Pacific experiencing a rise of up to four times the global average (IPCC 2014a). Rising sea levels and flooding cause inundation in low-lying areas as well as coastal erosion and sand loss in coastal areas (UNHCR, 2007: 8; Nicholls, 2003: 6). The fifth assessment report of the IPCC suggested that sea level rise could pose an existential threat to some atoll islands and will particularly impact islands where communities and infrastructure are located in coastal zones with limited possibilities for relocation inland (IPCC, 2014a). Although rising sea levels are mainly attributed to warming global average sea temperatures, some non-climate elements should also be considered. Factors such as volcanic activity, the *El Niño* effect, overpopulation (Connell, 2003) and sand mining induced coastal erosion (Balinuas, 2002) are all also contributors.

Climate change is affecting the essential ecosystems on which the stability of livelihoods, coastal settlements, infrastructure and economic growth in SIDS depends. Most socio-

economic activity in the SIDS takes place in low-lying coastal areas (IPCC, 2014a: 1625). Sea temperatures affect coral ecosystems and marine life, with serious direct impacts on food security (Fenner et al., 2008; Adams et al., 1996). Changes in fish migration patterns also impact the livelihood habits and food production capabilities of inhabitants, increasing vulnerability (SREP, 2009).

There is also a strong correlation between climate change and the increasing frequency and intensity of natural hazards such as cyclones, hurricanes and typhoons (IPCC, 2012: 115). The frequency of natural hazard events has increased in the Pacific region since the 1950s, and has notably accelerated by 5-20% in recent years (Bettencourt et al., 2006). Low-lying islands are among the regions of the world most affected by extreme weather events. Recurrent disasters and displacement, sometimes multiple times per year, leave survivors little time to rebuild their lives or means with which to do so. For some, adaptation *in situ* may not be an option for long. Realistic adaptation strategies that include dimensions accounting for the specific economic, social and political contexts of the region are urgently needed to face an uncertain future.

2.4.1 Intraregional differences in vulnerability to climate change in the Pacific

The earth's climate is changing faster than expected and sea levels are rising at a faster rate than envisioned. This poses challenges to Island States, coastal regions and SIDs in particular, which are by nature already extremely exposed to extreme environmental events. Pacific Island Countries and Territories (PICTs) share common features such as a high dependency on the Pacific Ocean and its resources; a relatively high exposure to natural disasters; high vulnerability to exogenous environmental and socio-economic changes. However, PICTs are often considered as a homogenous category of states as they share common vulnerabilities to climate change mostly attributed to their unique natural features. This should be nuanced as there is all through the PICTs a considerable diversity in terms of population, size of economy, culture and geography that highly influence the outcome when addressing Human Mobility as adaptation strategy to climate change. The Pacific region can be, in fact, divided in three main zones (Figure 5). As the purpose of this section is to understand the impacts of climate change on the Pacific region, it was useful to move away from the classic sub-regional classification "Melanesia, Polynesia and Micronesia" that could be problematic. Indeed, those terms

could be controversial and associated to negative and positive outcomes with geographic but also cultural and political referents. The literature reflects on arguments amongst scholars around the use of those terms mainly because of their historical associations with European colonization and the racism embedded in these (Lawson 2013). Therefore, as it is more relevant to the purpose of our thesis, we have rather focused on how each zone in the Pacific are affected differently by climate change according to "resource endowments, size, and the state of economic development." (ESCAP 2000).

Figure 5: Pacific Island Countries (Barnett and Campbell, 2010: 6).

The first zone, described as *Large High Islands* or *Melanesian Countries* (includes Papua New Guinea, Solomon Islands, New Caledonia, Vanuatu, and Fiji) experiences a range of challenges that include rapid population growth, land degradation, deforestation, mining (often leading to water pollution), invasive species, and deterioration of fisheries due to coastal reef decomposition. The second zone, the *Mid-Sized High Islands of Polynesia and Micronesia and the Small High Island Territories of the United States* (includes Tonga, Samoa, French Polynesia, Palau, Federated States of Micronesia, Guam, American Samoa and the Northern Mariana Islands) is characterized by scarcity of land, extreme deforestation, loss of biodiversity, degradation of coral reefs and fisheries, and pollution of ground water and coasts by agriculture chemicals. Islands in this area are also prone to volcanic eruptions, earthquakes, droughts, and other disasters. Residents of the

third zone, the *Small Islands* (includes Cook Islands, Kiribati, Tuvalu, Federated States of Micronesia, the Marshall Islands, Niue and Nauru are especially vulnerable to the effects of climate change. These primarily low-lying islands are highly exposed to storms, droughts, and limited fresh water access, but residents also have to cope with the consequences of ground water pollution from salt and agriculture, and consequent food insecurity. High rates of population create additional challenges including rapid urbanization in coastal areas and agricultural land unavailability.

2.4.2   Slow-onset environmental events: rising sea levels

The 21st century will have to expect a significant rise in sea levels in all regions (Figure 6 - Figure 7) (UNFCC 2005, 2014). However, global warming causing rising sea levels and flooding might cause inundation in low-lying areas such as the SIDS in the Pacific Islands, with significant effect such as coastal erosion and land loss (UNHCR 2010: 8).
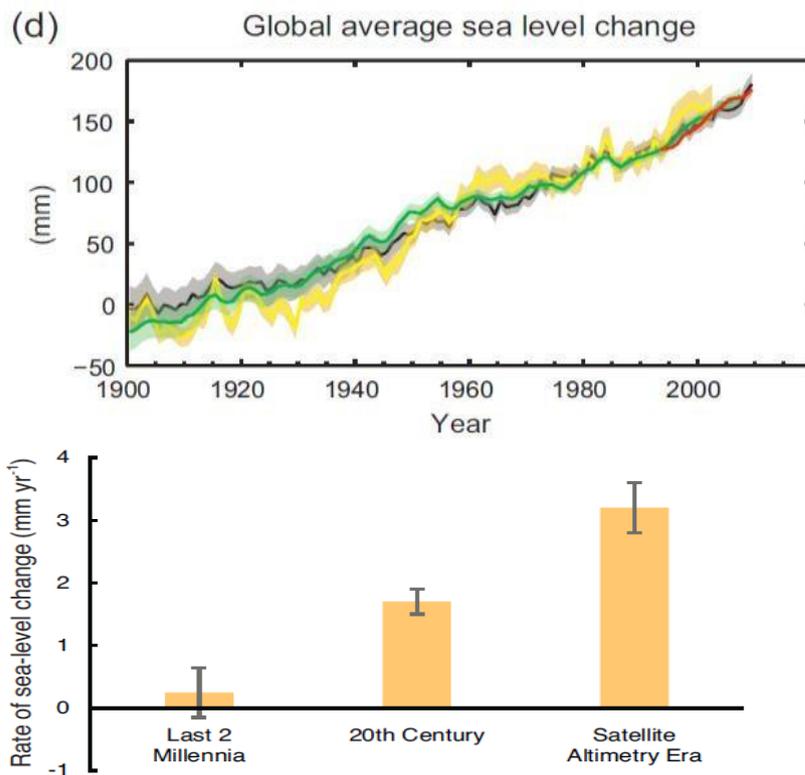
Figure 6:Evolution of the Global average of Sea Level Rise in the Past Source: (IPCC 2014).
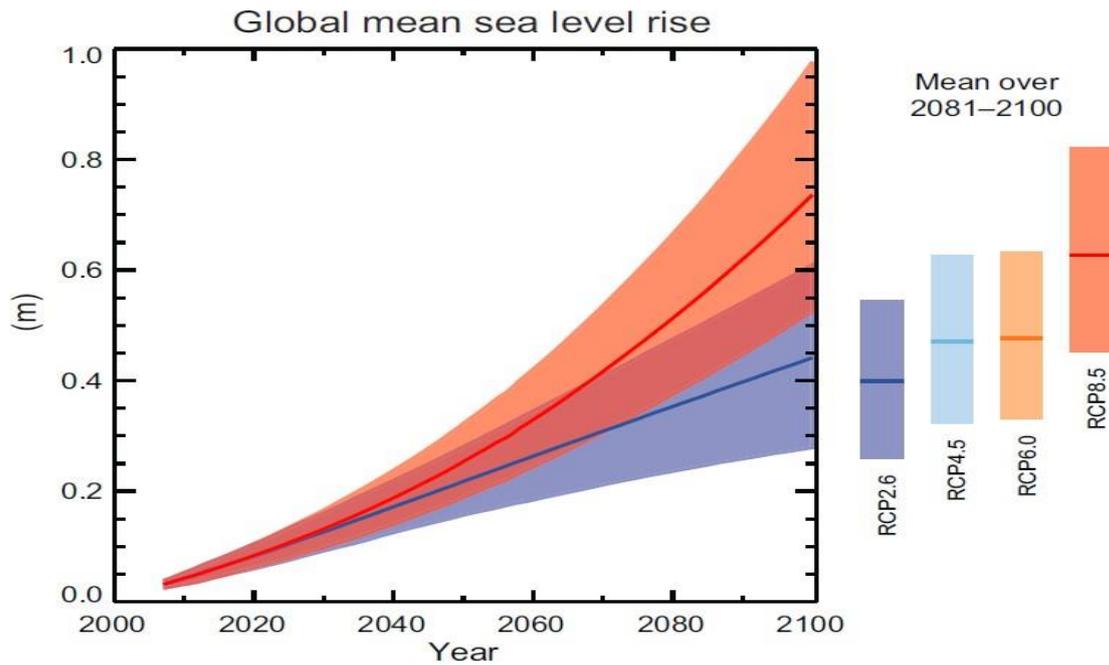
Figure 7: Evolution of the Global average of SLR in the future (Source: IPCC 2014).

Rising sea levels pose a range of challenges to low-lying and coastal regions around the world. Small Island Developing States (SIDS) are particularly threatened by inundation in low-lying areas with significant consequences such as substantial loss of territory (Figure 8). Many SIDS countries, due to their size, geography, and relative isolation and remoteness, have their very existence threatened. Key conclusions on the impacts of climate change on Small Island Developing States from the IPCC's Fifth Assessment Report (IPCC 2014) recognized as "virtually certain" that the rate of global average sea level rise has been accelerating since the 1950s, with the western Pacific experiencing a sea level rise up to four times the global average.

The Malé Declaration on Global Warming and Sea Level Rise acknowledged already in 1989 that sea levels would still continue to rise even if climate change was having no more impacts on the Islands (Preamble para. 2) . Climate change is affecting the essential ecosystems on which the economic stability of the SIDS depends, posing risks to livelihoods, coastal settlements, infrastructure, ecosystems, and economic growth in the region. SIDS are especially exposed and vulnerable to sea level rise given that most socio-economic activity takes place in low-lying coastal areas (IPCC 2014: 1625).
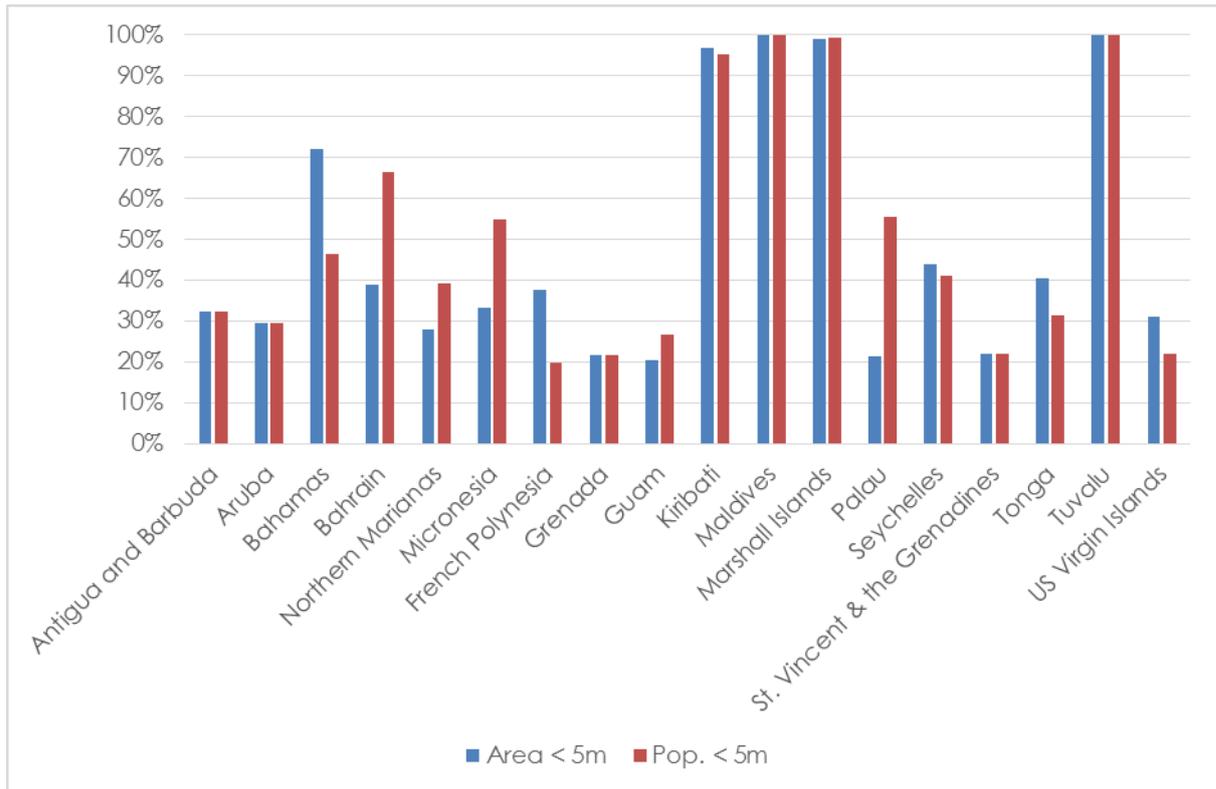
Figure 8: Percentage of land area and population below 5 metres (Source: UN-HABITAT, 2015:19).

Furthermore, coastal erosion is particularly sensitive in the context of the Pacific region as land ownership is predominantly customary-based and predominantly located in urban areas (Figure 9). In Fiji 88% of the land is customarily-based and 97% in PNG (GoPNG 2007; AusAus 2008). 52% of the population of Fiji lives in urban areas that are mostly coastal, while 11.4% of the total land area below 5 meters of elevation. 11% of the population is living in those areas where elevation is below 5 meters (UN Habitat 2015). In PNG 61% of the population live within 100 km of the coastline (ADB 2012), while the population living in (mainly coastal) urban areas is 12.6%, one of the lowest rates in the region (United Nations 2014: 152; UNDP, 2014). PNG has four large islands and 600 smaller ones (GoPNG 2012). Approximately one fifth of the land in PNG is subject to regular inundation, as low-lying areas are increasingly experiencing frequent storm surges due to sea-level rise (Australian Bureau of Meteorology and CSIRO, 2014: 220).

SIDS country	Customary/ Communal/ Family lands (%)	Urban Population (thousand s)	Total Population (thousand s)	Percentage urban	Average Annual Rate of Change of the Urban Population 2010-2015 (in %)	Population in the largest city (% of urban population)	Largest city (by inhabitants)	Land area where elevation below 5m (% of total land area)	Population living in areas where elevation below 5m (% of total population in 2000)
American Samoa		65	70	93,2	1,87	100	Tafuna	17,9	9,9
Anguilla**		16	16	100	1,56		North Side		
Antigua and Barbuda		27	90	29,8	0,96	100	St. John's	32,4	32,3
Aruba**		51	108	46,8	0,54	69,9	Oranjestad	29,6	29,6
Barbados		122	274	44,4	1,35	92,7	Bridgetown	15,7	15,7
Fiji	88	454	868	52,2	1,55	39,7	Nasinu	11,4	11
French Polynesia**		141	274	51,4	1,07	97,3	Papeete	37,6	19,8
Kiribati*	>45%	44	101	43,9	1,83	101,9	Bairiki	96,7	95,2
Maldives*		132	320	41,2	3,91	97,1	Malé	100	100
Marshall Islands	99	39	55	71,8	2,03	79,4	Majuro	99	99,4
New Caledonia**		157	255	61,7	1,24	94,1	Nouméa	8	34,2
Niue**	98,5	1	1	37,9	-1,63	-	Alofi	-	
Palau	Some	17	21	84,2	1,67	74,4	Koror	21,4	55,6
Papua New Guinea	97	874	7 014	12,5	2,73	37,5	PortMoresby	1,8	2

Figure 9: Percentage of customary, urban land area and population below 5 metres in SIDS countries (Source: UN-HABITAT, 2015).

Significant variations of sea level are particularly important in the Pacific region. Low-lying Islands of Tuvalu and Kiribati are threatened by their very existence with land rarely exceed 3 meters above mean sea level (GoT NAPA, 2007: 13, GoK NAPA, 2007: 4) making cross-border retreat inevitable in the future. The graph below (Figure 10) illustrates the example of Fiji and shows sequential increase in monthly average sea level in Lautoka provided by the National Tidal Centre and the Bureau of Meteorology (2018).[34] The Bureau of Meteorology estimates the rate of rise to be in the range of 3.4 to 11.6 mm/year and explains that the effect of the El Nino of 1997 was followed by a world-wide temperature increase.
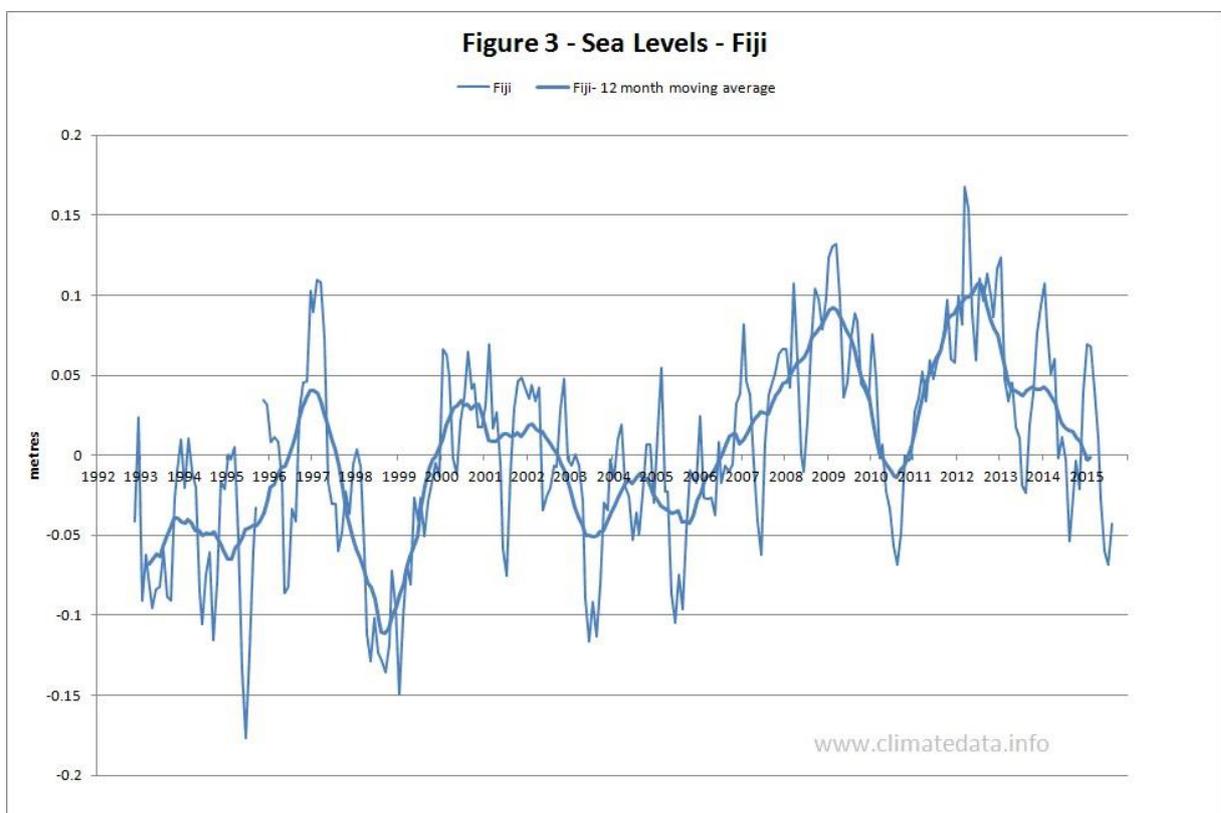
Figure 10: Climate data, Bureau of Meteorology, 2018.

Although rising sea levels in the SIDS are being generally driven by climate change, non-climate factors also play a role, including volcanic activity, subsidence, *El Niño* cycles, population growth, and sand mining (Balinuas and Soon 2002, Connell 2003). The table below (Figure 11) summarizes the observed and projected change of extremes at global scale including temperature, *El Niño* and floods particularly relevant to the Pacific.

Variable / phenomenon	Observed changes since 1950	Attribution of observed changes	Projected changes up to 2100
Temperature	Very likely* decrease in number of unusually cold days and nights. Very likely increase in number of unusually warm days and nights. Medium confidence in increase in length or number of warm spells or heat waves in many regions. Low or medium confidence in trends in temperature extremes in some subregions due either to lack of observations or varying signal within subregions.	Likely anthropogenic influence on trends in warm/cold days/nights globally. No attribution of trends at a regional scale with a few exceptions.	Virtually certain decrease in frequency and magnitude of unusually cold days and nights. Virtually certain increase in frequency and magnitude of unusually warm days and nights. Very likely increase in length, frequency, and/or intensity of warm spells or heat waves over most land area.
Precipitation	Likely statistically significant increases in the number of heavy precipitation events in more regions than those with statistically significant decreases, but strong regional and subregional variations in the trends.	Medium confidence that anthropogenic influences have contributed to intensification of extreme precipitation at the global scale	Likely increase in frequency of heavy precipitation events or increase in proportion of total rainfall from heavy falls over many areas of the globe, in particular in the high latitudes and tropical regions, and in winter in the northern midlatitudes.
El Niño and other modes of variability	Medium confidence in past trends towards more frequent central equatorial Pacific El Niño-Southern Oscillation (ENSO) events. Insufficient evidence for more specific statements on ENSO trends.	Anthropogenic influence on trends in North Atlantic Oscillation (NAO) is about as likely as not. No attribution of changes in ENSO.	Low confidence in projections of changes in behaviour of ENSO and other modes of variability because of insufficient agreement of model projections.
Droughts	Medium confidence that some regions of the world have experienced more intense and longer droughts, in particular in southern Europe and West Africa, but opposite trends also exist.	Medium confidence that anthropogenic influence has contributed to some observed changes in drought patterns. Low confidence in attribution of changes in drought at the level of single regions due to inconsistent or insufficient evidence.	Medium confidence in projected increase in duration and intensity of droughts in some regions of the world, including southern Europe and the Mediterranean region, central Europe, central North America, Central America and Mexico, northeast Brazil and southern Africa. Overall low confidence elsewhere because of insufficient agreement of projections.

Variable / phenomenon	Observed changes since 1950	Attribution of observed changes	Projected changes up to 2100
Floods	Limited to medium evidence available to assess climate- driven observed changes in the magnitude and frequency of floods at regional scale. There is low agreement in this evidence, and so low confidence at the global scale regarding even the sign of these changes. High confidence in trend towards earlier occurrence of spring peak river flows in snow melt- and glacier-fed rivers.	Low confidence that anthropogenic warming has affected the magnitude or frequency of floods. Medium to high confidence in anthropogenic influence on changes in some components of the water cycle (precipitation, snow melt) affecting floods.	Low confidence in global projections of changes in flood magnitude and frequency because of insufficient evidence. Medium confidence that projected increases in heavy precipitation would contribute to rain-generated local flooding in some catchments or regions. Very likely earlier spring peak flows in snow melt- and glacier-fed rivers.

Figure 11:Observed changes in some extremes, their attribution and their future projection, table 3.1 in IPCC, 2012).

*Likelihood assessment: virtually certain, 99–100%; very likely, 90–100%; likely, 66–100%; more likely than not, 50–100%; about as likely as not, 33–66%; unlikely, 0–33%; very unlikely, 0–10%; and exceptionally unlikely, 0–1%.

In the literature, Piguet et al. (2011) identified Sea Level Rise (SLR) as new phenomenon with very particularly limited number of studies. Projection scenarios of the magnitude of sea level rise have been an important focus of the IPCC reports. Many authors have used those projections to identify scenarios which constitute an important portion of the studies on SLR (Gomez 2003). For instance, Dasgupta et al. (2007) projected scenarios between 1 and 5 meters rise and McGranahan et al. (2007) studied the effect of rise up to 10 meters. Two types of vulnerable populations are mostly identified by those studies: those small island states and those living in urban cities (McGranahan et al., 2007; Foresight Project and Government Office for Science, 2011). McLeman (2011), Boano et al. (2012) provided studies of full relocation of Islands within Papua New Guinea and Great Britain. Farbotko and Lazrus (2012) underlined the instrumentalisation of SIDS population to advocate for urgent action on climate change. Governments of the SIDS have expressed their willingness to avoid migration Maas and Caius (2011) identified in their study the strong will from SIDS's governments to avoid migration as much as possible. Despite the prominent literature on traditional ways of coping with environment variability (Campbell, 2006, 2010, and 2014), research on SIDS focussed rather on understanding dynamics underlying the threat of disappearance. Our Chapter 4 on

"History of human mobility in the Pacific and implications for climate change adaptation strategy" will provide more insight on this literature that will support our analysis of examples of historical and recent planned relocation.

2.4.3   Increased frequency and intensity of extreme rapid-onset events

There is a strong correlation between the frequency and intensity of extreme environmental events such as cyclones, hurricanes, typhoons, and climate change (IPCC 2007a). Laczko and Aghazarm (2009) suggest that rapid-onset phenomena are mostly associated with short term and temporary movement. Macro level research reveals that prolonged effects of disasters may create the incentive for people to move from their own country (Naudé, 2008). Afifi and Warner (2008) emphasizes on the large increase of internal migration resulting from rapid-onset environmental events. The Pacific region is particularly exposed to these phenomena (Hay, et. al 2003). Forecasts estimate that climate variability, global average temperature rise, and sea warming will intensify and increase the frequency of natural disasters such as cyclones from 5 to 20% in the region (Bettencourt et. al. 2006). Evidence suggests the frequency of natural hazard events has increased in the region since the 1950s, and notably accelerated in the last decade. Increased intensity and frequency of tropical cyclones is a considerable concern in the Pacific. Cyclone Pam in 2015 and Cyclone Zoe in 2002 are examples of particularly destructive storms that have hit the region in recent decades (Shultz et al 2016 :41), with Cyclone Winston, which hit Fiji in February 2016 ranking as one of the most powerful storms to ever strike the Pacific Islands region.

Since 1950, extreme environmental events have affected around 9.2 million people in the Pacific, with 9,811 reported deaths, and estimated damages of USD 3.2 billion (Framework for Resilient Development in the Pacific 2016:17). The economic consequences of extreme natural disasters are expected to grow, but the scale of the impacts will vary by country. For example, a World Bank study (Bettencourt et. al. 2006) estimated that annual damages from climate change and sea level rise could, for the state of Kiribati, could be equivalent to 17–34 percent of the country's GDP, but that for a high island as Viti Levu (Fiji) the average annual economic impact is expected to be much lower (about 2–4 percent of GDP by mid-century). During the last decade, some countries have experienced disasters and losses that have approached or exceeded their Gross

Domestic Product (GDP). Estimates are that future economic loss and damage to key economic sectors, including agriculture, fisheries, and tourism could reach 34% of GDP in some countries (ADB 2013). In terms of economy, the Pacific countries will experience net negative impacts by 2050 in all climate change scenarios commonly used by climate scientists (ADB 2013). The costs of hard infrastructure needed to protect shorelines from future damage are not yet being fully accounted for in SIDS (SPREP 2011). In addition to economic risks, there also needs to be considered the non-economic implications of loss of family and community livelihoods, damage to housing and land, damage to cultural practices (such as burials), and the undermining of traditional governance system (Monnereau I. and Abraham S. 2013, Cantieri 2016). The livelihood and adaptation strategies of Pacific Islands residents often depend to a high degree on mobility, (UNFCCC 2010, UNHCR 2014), making it an important component of future socio-economic futures for the region.

2.5 Conclusion

Climate change is a major security issue in the Pacific and over the years, responses to its impact have existed at the community level, national level and regional levels. The worsening impact through frequent cyclones for instance have transformed people's sense of security in a holistic way which includes social, cultural, economic and political means of responding involving multiple stakeholders. At the community level, indigenous forms of adaptation and resilience have been part of their culture for centuries and there is a need to consider these as we look at future modes of adaptation, including relocation. Government approaches are more formal and sometimes driven by the narratives of funders and how these external factors interact with local narratives is not straight forward but complex and needs comprehensive study. This is what this thesis attempts to do.

This chapter has looked at some of the impacts of climate change on Pacific communities and in the following chapters we will be looking in detail at some of the responses in terms of empirical policy approach and theoretical conceptualization.

CHAPTER 3
Understanding climate change and planned relocation: Some empirical and conceptual issues

3.1 Introduction

This chapter will critically engage with literature relevant to address planned relocation as a policy process and from a social perspective. It will review the literature and explore conceptual discussion relevant to those frameworks that will be addressed in more details in Chapter 4. It will also provide a critical evaluation of the different positions developed around "land rights" and "sustainable relocation" that will be key to discuss our main approach. Finally, it will present the concept of sustainable relocation as an adaptive response to climate change impacts and will illustrate current cross-disciplinary debates on climate-induced human mobility and relocation strategies. The issue of land rights in the Pacific Island Countries and Territories (PICTs) will be examined with an attempt to discuss current literature on the importance of land rights in relocation. Within this assessment, we will engage with literature on the land tenure systems in the region and consider ongoing scholarly debates between defenders of collective rights and proponents of individual rights. The foundations of these two camps have implications on how they characterize the relocation process.

3.2 Literature relevant to the study of planned relocation as policy process

In the study of our study, it would be relevant to observe interactions and dynamics; barriers and enablers, synergies and tensions between state and customary institutions in the context of planned relocation. This observation led us to observe literature having at its core concepts such as "barriers" and "enablers" to study governance of adaptation to climate change. Limits to adaptation and social barriers to successful adaptation have been studied extensively in the scientific literature (Adger et al. 2009a; Dovers and Hezri 2010; Berrang-Ford et al. 2011; Biesbroek 29 et al. 2011; Ford and Berrang-Ford 2011). More recently, scholars have started to investigate barriers that could hinder the governance process of developing and implementing climate change adaptation

strategies, policies, and plans (Burch 2010a; Moser and Ekstrom 2010; Measham et al. 2011). As also observed in the literature, there have been very few debates about the variety of analytical lenses for studying barriers and enablers to the governance of adaptation as well as the ontological and epistemological assumptions directing scientific inquiry on the governance of climate change adaptation (O'Brien et al. 2007; O'Brien and Hochachka 2010). Existing gaps in the literature on barriers and limits to adaptation to climate change are notably demonstrated by Briesboek et al. (2013a:2) systematic review of the literature on adaptation to climate change;

> Barriers to adaptation have hardly been defined in the literature and no clear indicators exist so as to identify and assess them systematically. An impressive number of barriers have been reported, but the list of possible barriers is seemingly endless. The most frequently reported barriers relate to the institutional and social dimensions of adaptation. Barriers are identified as configurations of climate and non-climate factors and conditions that emerge from the actor, the governance system, or the system of concern. Barriers are mainly studied in developed countries with a strong focus on water-related domains. The majority of studies on barriers use small-n inductive case approaches while comparative studies across different contexts are limited. Although interventions to overcome barriers are recommended by most studies, empirical studies on interventions are scarce. (Briesboek et al. 2013a:2)

After identifying gaps in the literature described above, Briesboek and al. (2013b) suggest that "the choice of analytical lens influences how barriers to adaptation are constructed and the intervention strategies proposed." The authors suggest then a study of three dominant philosophies in the study of governance: "the optimist", "the realist" and "the pessimist philosophy" that are observed through the scope of four analytical lenses for studying barriers to the governance of adaptation illustrated in the next section in Figure 12.

3.2.1 Literature studying barriers and enablers to the governance of adaptation

This section presents and discusses in more details the "optimist", "realist" and

"pessimist" political theory used in Biesbroek et al. (2013b) theoretical framework summarized as follows:

	Optimist	Realist	Pessimist
Governance as	Instrumental efforts to solve societal problems	Interactions between dependent actors in the institutional environment	Power play of actors in a locked-in society
Barriers as	Errors in the design and execution of the governance process	Inevitable temporary impasses in the complex interactions between actors about the problems and solutions	Systemic errors in the system or the linkage between subsystems
Interventions as	Removing the barrier by optimizing the actors and governance process	Searching for openings and remaining dynamics in interaction between actors	Impossible as barriers are mostly unmanageable and have a discernible influence on the process
Conceptual approach	Rational policy cycle	Erratic processual	Systems, causal loop diagramming

Figure 12: Three philosophies of governance (Biesbroek et al. 2013 b: 156)

3.2.1.1 Optimist philosophy of governance

Hedger et al. 2006 define governance as information processing and making choices to serve the greater good (Hedger et al. 2006). Bovens and 't Hart (1996) argue that the optimist philosophy view governance as the efforts to solve societal problems, search for an objective, scientific approach to explain social phenomena and to create policies to deal with them. The challenge of adaptation to climate change is for governance actors to select, with the available uncertain knowledge, the best options to adapt to climate change impacts (Biesbroek et al. 2013:108). Governments play an essential role in this governance process and Bovens and 't Hart explain that "...they [the optimists] firmly believe in the machinery of governance" (Bovens and 't Hart 1996: 95) to solve these societal problems. Barriers are defined by Biesbroek et al. (2013) as unusual errors in this machinery, and the optimist philosophy preconize the identification of those barriers with the aim to overcome them by reverting to procedural rationality defined as follow:

Success in solving a problem is determined by how the governance process itself is designed and facilitated: the structures, processes, and means through which decisions are made. Values and objectives of individual actors are not central to the analysis since values cannot be measured objectively. Even if they are included, the actors' goals and values are presumed to be fixed, at least for the purpose of the analysis (March and Olsen 1989). (Biesbroek et al. 2013:119)

Therefore, from an optimist point of view, the goal of adaptation to climate change is seen as the starting point for the analysis while "processual and programmatic success" is considered to be the precondition for successful adaptation. (Biesbroek et al. 2013:121) Cioran critic political optimism accused to create "idolatry of tomorrow" which is used to "authorize anything in its name." (Cioran 1975:178)

3.2.1.2 Realist philosophy of governance

Taking its roots in the classical tradition of political theory of Thucydides, Thomas Hobbes, Niccolo Machiavelli, Jean-Jacques Rousseau and Max Weber; Realism emerged in the mid-20th century and is the dominant post-1945 academic study of International Relations (IP) focusing on the perennial role of power and self interest in determining state behavior. For realists, decision making is not about problem solving, but about coupling problems and solutions (Cohen et al. 1972). Realists have in common with optimists the centrality of the State but claim to provide the most accurate explanation of state behavior (notably the balance of power between states) for ameliorating the inherent destabilizing elements of international affairs. Indeed, realists focus is on "the continuity of patterns of interactions in an international system lacking a centralized political authority" (Bevir et al. 2007: 796). For realists, societal issues and complexity for which there is no shared problem definition and no clear best solution increases the complex nature of decision making (Weber 2008; Weber and 135 Khademian 2008; Lazarus 2009; Levin et al. 2012).

As stated by Biesboek et al. (2013:137) governance is considered by realists to be "a fragile activity, with labyrinths of struggles, disagreements, and power play between interdependent actors {…} and the institutional structures of formal and informal rules that enable and constrain these interactions." The realists are therefore interested in

understanding the causes of conflict in interactions (Torfing et al. 2012).

The realists refer to conflicts or struggles inherent in governing complex problems rather than "barriers" in governance. In terms of adaptation to climate change, societal complexity is at the center of the analysis and makes government no longer the main actor in the governance of adaptation. Key principles to prevent failure in governance processes in the realist philosophy include management, communication, and leadership. Furthermore, the realists understand complexity through rationalization and believe that complexity should not be reduced but rather embraced as it is important to understand the causes of conflicts (Klijn 2008).

3.2.1.3 Pessimist philosophy of governance

> *The idea that a pessimistic philosophy is necessarily one of discouragement is a puerile idea, but one that needs too long a refutation.* — Albert Camus

Philosophical pessimism is often presented as opposed to the optimist or "Hegelian philosophies". It is also depicted as different from other political philosophies by having no ideal governmental structure (Dienstag 2006:7). Indeed, pessimists tend to be sceptical about the fact that politics aiming for social progress could make the human condition better and assume that "most of societal problems have become more complex and interrelated across spatial and temporal scales" which includes issues around Climate change that is seen in pessimist terms as the "ultimate price to pay for technological and social progress" (Biesboek 2013:158-159). This philosophy recognizes barriers as "explanatory variables of why governance continues to fail" (Biesboek 2013: 167) which results from the fact that tensions in the socio-economic, political, and institutional spheres create structural imperatives, leading in turn to repeated patterns of governance failure (Jessop 2003). In terms of adaptation to climate change, this would translate in particular focus on understanding sources of barriers that cause recurring failures of governance adaptation. Indeed, as explained by Biesboek (2013:177), "Whereas the optimist attempts to decrease social complexity by assuming rationality, the pessimist embraces systems thinking and analysing at higher levels of abstraction in order to simplify social complexity".

For pessimists, Governments play only a marginal role in solving complex issues society is facing and for them;

> Increasing globalization and liberalization of markets blur the boundaries between domestic and international policies, and between the free-market economy and the democratic political system. Nested governance systems emerge that have become less predictable, highly complex, and inherently flawed. It is often unclear who is in the driver's seat and who can be held accountable for what. The governance system is controlled by the wealthy and powerful, leaving other actors to decide whether to serve those interests or the interests of a broader public in a more equitable way. (Biesboek 2013:165).

However, Camus (1956) underlines that the pessimists can still be politically involved despites considering no ideal governmental model. Dienstag (2016) emphasizes on the heritage of pessimism from Rousseau, Schopenhauer, and Nietzsche, to Freud, Camus, and Foucault and argues that the pessimistic tradition should be the starting point of political theory as "energizing and liberating" philosophy. The goal of pessimism would be "to fortify us for life in a disordered and disenchanted universe" (Dienstag 2016). Pessimism also provides an alternative to the progressivist ideas that have been dominating thinking processes in politics during the modern period. The pessimists argue to follow a holistic approach to understand the system as a whole and the interconnectedness between system parts in search of explanations for failure. There is an intrinsic contradiction between the realist and the pessimist philosophy of governance:

> Whereas the realist assumes that insightful management of governance processes can still result in successful outcomes, the pessimist argues that, no matter how elaborate the efforts to manage the governance system, the risk of failure is structural. (Perrow 1984, cited in Bovens and 't Hart (1996); Pressman and Wildavsky 1984; Jessop 1998).

In the area of adaptation to climate change, this would translate in engaging in" a process of process of trial and error as forms of social experimentations on adaptation and hope that this will be sufficient to be prepared for future challenges." (Biesboek 2013:174).

The three dominant philosophies in the study of governance described above are observed by Biesbroek's et al. (2013b) through the scope of four analytical lenses applied to the study of barriers to the governance of adaptation: (i) governance as problem solving, ii) governance as competing values and interests, iii) governance as institutional interaction, and iv) governance as dealing with structural constraints.

	Governance as problem solving	Governance as competing values and interests	Governance as institutional interaction	Governance as dealing with structural constraints
Governance philosophy	Optimist	Realist	Realist	Pessimist
Possible sources of barriers	Human error Organizational and management error	Diverging frames, ideologies, and preferences Conflicting perspectives on problems and solutions	Institutional misfits across scales and sectors Failing, lacking, eroding, or unshared institutional rules, checks, and balances	Structural error, blurred by the interactive complexity of the system Decoupling between temporal, spatial, and functional components of the system
Examples from ARK programme	Lack of knowledge for decision making, lack of resources, lack of skills, lack of policy instruments for implementation	Disagreement on the key problems and solutions, conflicting interests and policy agendas, meta-cultural frame conflicts, strategic struggles, reframing of adaptation debate	Institutional voids to support ARK programme, fragmented networks and policy games, low political leadership	Short-termism favoured over long-term climate change, changes in context, technocracy in government, intergovernmental efforts as window-dressing
Possible ways of intervening	Educate people, reorganize, optimization of the governance process	Search for openings in interaction through frame reflection and negotiation	Search for openings through institutional design for process and outcome	Expose the capitalist system as structurally flawed and reduce dependence on the system
Examples from ARK programme	Collect more knowledge through Routeplanner project, start new research programmes, avoid decision making, merge with Delta Programme	None attempted	None attempted	None attempted

5.   Discussion: what have we gained from using different analytical lenses?

Figure 13: Three dominant philosophies in the study of governance: "the optimist", "the realist", and "the pessimist philosophy" observed through the scope of Biesbroek's et al. (2013b) four analytical lenses for studying barriers to the governance of adaptation. (Biesbroek et al. 2013b)

Biesbroek et al. (2013a:13) results confirm the ideas that "{…} adaptation to climate change is not a straightforward task, that context plays an important role in understanding barriers, and that actor centred approaches are necessary for analysing barriers to adaptation. This is where we feel the biggest challenge for future research on barriers to adaptation lays; to change from the inventory questions of 'if' and 'which' barriers to adaptation exist towards more analytical questions as to 'why' and 'how' these barriers

emerge." This framework will be used in our analysis of data collected in chapter 8. We hope to contribute to this literature and knowledge on adaptation to climate change by studying those barriers in the context of planned relocation. We will explain in chapter 4 (theoretical framework) how we will be using this framework to analyze our data and how this theoretical framework will be engaged in the thesis.

Our review of the literature also revealed two other conceptual models studying relocation as policy process of relevance to our study: The "managed-retreat" conceptual model (Hino 2017) and the "conceptual model of government action or inaction on planned relocation of vulnerable populations" (Mortreux et al. 2018). The "managed-retreat" conceptual model (Hino 2017) presents an interesting framework to analyze planned retreat and the role of political will in the process useful to provide lessons on planned relocation as policy process.
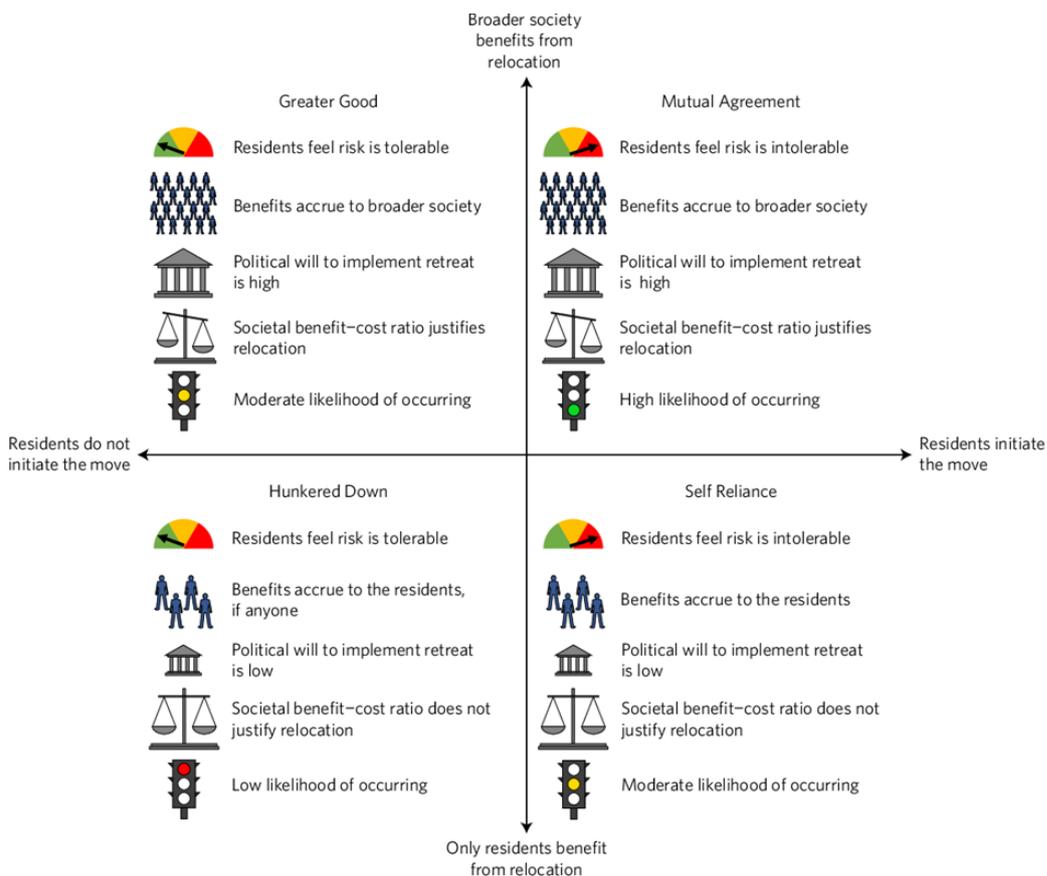
Figure 14: Key characteristics of each quadrant in the managed-retreat conceptual model. The two axes represent the residents' initial desire to move and the scale of beneficiaries. Political will, societal benefit–cost ratio, and likelihood of occurrence stem from those two factors (Hino 2017).

Pill (2020) but also Hino (2017) show through this model that when the affected population is willing to move and the government supported the move is "when the best possible outcome for a relocation project is achieved" (see Figure 14).

Mortreux et al. (2018:125) confirm this trend in the **"conceptual model of government action or inaction on planned relocation of vulnerable populations"** (see Figure 15) by evaluating uneven government responses to communities threatened by environmental change and their outcomes. Results from this study mention potential for "trapped populations" but only in the case of government inaction.
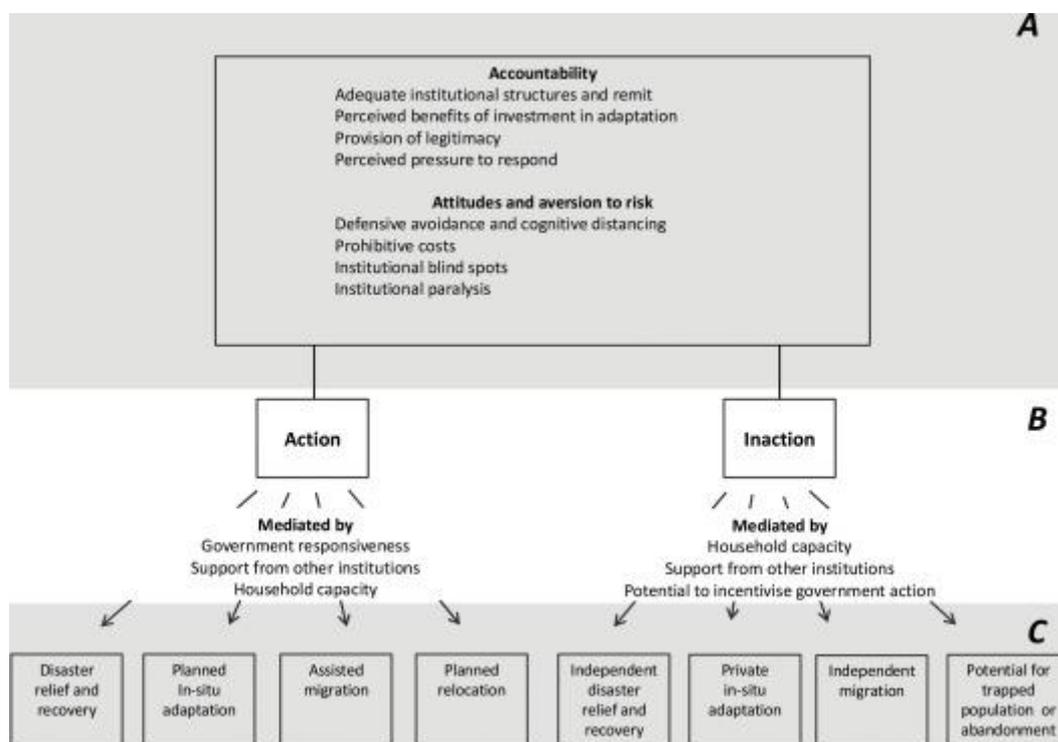
Figure 15: Conceptual model of uneven government responses to communities threatened by environmental change. Upper panel A: determinants of decisions; Middle panel B: decisions; Lower panel C: Outcomes for communities. (Mortreux et al. 2018)

Hino (2017)'s theoretical model doesn't include the dimension "trapped populations" and seems to lack nuances when addressing conditions for success of relocation projects. It was therefore useful to review both models in addition to Biesboek et al. (2013) as the theoretical findings of those studies are complementary. We will attempt to contribute to the literature by adding our observations on scenarios of planned relocation when residents initiate the move with mutual agreement and political support. We will observe potential lessons observed on "trapped populations" and whether the population moving

might still feel that "risk is intolerable" even if the government is involved in the process.

These frameworks will be used in the thesis to provide more insight on planned relocation taken from a policy perspective, we will present how in Chapter 3 and results from this analysis in chapter 8. The next section will review more in-depth literature tied to the concept of "trapped populations" introduced here that refers more broadly to the body of literature on "immobility" present in mobility studies. This literature relates predominantly to social aspects of planned relocation and the social sciences literature. It will therefore be useful to provide a state-of-the-art of this particular body of literature that is relevant to engage with a study of planned relocation taking a social perspective. By exploring this literature, we aim to contribute to the literature and provide insights on "How can planned relocation be conceptualized as an adaptation strategy to climate change from a social and policy perspective using Fiji as case study" that is our main research question.

3.3   Planned relocation as social experiment

It is only recently that social drivers of climate change vulnerability started being addressed in the literature. Thomas et al. (2019) in their social review focusing on explaining differential vulnerability to climate change underline that recent interest for social drivers of climate change in the literature:

> When the Intergovernmental Panel on Climate Change issued its First Assessment Report in 1990, research on climate change vulnerability primarily framed the issue in terms of exposure to physical impacts on particular sectors (e.g., water, agriculture), regions (e.g., the Andes, Southeast Asia), and countries, but offered little by way of analysis of the social drivers of climate change vulnerability or the uneven distribution of risk. Much has changed since. In the intervening years, a vast number of social scientific investigations have generated methodological approaches, empirical findings, and theoretical insights that have transformed how we think about climate change vulnerability. Despite these significant developments, scientific and technical approaches to climate change continue to dominate, leaving the underlying social drivers of vulnerability

largely unaddressed. We therefore draw crucial attention to social scientific approaches to climate change vulnerability by identifying and synthesizing signal contributions to the field (Thomas et al. 2019:1).

In the specific context of the Pacific, only in the last decade, the social sciences have started to extensively contribute to the body of literature on the human dimension of climate change and its impact on the whole Pacific region (see Garnaut 2008 or Kelman 2011) or individual countries in the PICTs (see, for example: Barnett (2001), Daly (2010), Gero (2010), Lefale (2010) for Samoa; Rasmussen (2009) for the Solomon Islands; Lazrus (2009) for Tuvalu; Campbell (2005), Gero (2010) and Mataki (2006) for Fiji.

In this section of the review devoted to literature relevant to planned relocation taking a social perspective, we will address the main themes relevant to our study including firstly the exploration of the body of literature relevant to the study of limits to adaptation (in the same line of the precedent section identifying scholarly work on "barriers and enablers" to adaptation) including a discussion on cultural cohesion and the specifics of Land in the Pacific Islands. We will then focus on conceptual discussions in the literature involving adaptation and loss and damages, particularly important in the context of Pacific that has been particularly of interest to the scientific community to observe Non-Economic Loss & Damages (NELD) in the context of climate change. Then, as mentioned in our previous section, we will explore the growing body of scholarly work on "trapped" populations that integrates immobility within the "mobility paradigm". We will attempt to identify gaps in these literatures and explain how we aim to contribute to this body of knowledge.

3.3.1 Limits to adaptation, cultural cohesion and land in the Pacific

3.3.1.1 The Specifics of Land in the Pacific Islands

"Land is life, without land there is no life";

Kwa (2009:2) insists on the importance of land in the Pacific by citing this popular maxim revealing that the relationship between land and indigenous people in the Pacific is made of interdependence (Kwa 2009: 3). Customary systems are diverse in the PICTs. However, commonalities in the practice of values and customs can be found across the Pacific region (New Zealand Law Commission, 2006). Customary laws are central and

govern many aspects of Pacific communities' lives and are essential in building their identity and "world view," conduct of spiritual life, maintenance of cultural heritage and knowledge systems." (Tobin, 2008). Customary Law was used as a means of governance in the pre-colonial era. Zorn (2003) notes that during this period, the legal systems used existing social, political and economic systems to govern the lives of Pacific peoples. Customary laws were functional, had effective methods for ensuring that the rules would be followed and outlined workable procedures for settling disputes (Zorn, 2003: 96). Today, custom is still an important jurisdictional base for determining the rights, use and boundaries of customary land (Fitzpatrick, 2013). Given the importance of land rights to the success of relocations in the PICTs, an understanding of customary law and collective practices is needed as a precursor to planning sustainable relocations.

Land tenure is a significant issue in the endeavor to adapt to climate change, and on a number of Pacific islands, land disputes are already a major source of conflict (Wilson, 2009). As discussed by Worliczek et al. (2011), this tendency can be expected to increase when the available fertile, usable land decreases. The authors warn that it is therefore important to anticipate the changes that will come in order to prepare for them and find an equitable and sustainable land tenure solution that will meet the needs of the population, before land disputes escalate. The word 'tenure', used by itself, often refers to land tenure, but may have other meanings e.g. job security. Bohannan stresses the social nature of land access and control, a recurring theme in recent studies. He urges scholars to view land tenure in terms of relations not only between people and the land but also between different groups of people (Basset and Crummey, 1993: 12). Property restitution and access to land are the predominant areas of rights affected by environmental degradation (IASC, 2011). Discharging the government's responsibility to protect these rights requires consideration of factors such as existing settlement patterns (plot size of the current and future settlements); land-use habits (current and future settlement basins); and the right to use land (ADB, 1998). These factors vary for local, national, regional and international relocations.

Land tenure systems can both facilitate or provide barriers to relocation according to the context. On one hand, the literature presents traditional land tenure includes mechanisms for coping with migrants in the PICTs whereby they are accepted on the condition that they become part of the community (Ward 2000: 80). Arrangements can be made between

the landholders, land controllers and the newcomers; these typically imply community involvement and asset-based contributions. Whilst rarely formerly recorded, the customs around these agreements are very strong, binding and have long-standing affects. Such customary agreements have facilitated land accessibility to a considerable number of migrants in the PICTs.

On the other hand, some of the literature presents land tenure as particularly problematic. Despite state claims to property, occupants retain ownership legitimacy via *residual rights* which are customarily linked. Potential allocations of state land relocating communities may result in violent disputes for many years to come, given that the customary land holders are likely to have social and political relationships to the land (Ward, 2000: 82). These links form part of their ethnic identity. It should not be assumed that governments can make independent decisions around land rights and transfer land to relocatees. Consideration of *customary rights holders* is critical given that *overlapping* rights may exist where multiple rights-holders exist over the same land.

It is worth emphasizing that in Pacific Island communities, land is an important source of a sense of security. Land is described as: "an extension of the self; and conversely the people are an extension of the land" (Ravuvu, 1988). Customary practices also have critical implications on managing the use of land, forest, and marine resources as well as on food security (AusAID, 2008). Collective local practices, inscribed in customary law, are a "shared way of living of a group of people, which includes their accumulated knowledge and understandings, skills and values" (Thaman, 2000: 139). As land is the traditional embodiment of islanders' wellbeing, relocation is thus feared to be a potential catalyst for land conflicts and social conflict (Weir et al. 2010: 10) Land tenure systems can both facilitate or provide barriers to relocation according to the context (Worliczek 2015). It is therefore relevant to study land tenure through the scope of barriers and enablers that are reflected in our literature review and theoretical framework. This will be explored and analysed in Chapter 6 discussing the thesis results.

3.3.1.2 Human Mobility as Adaptation Strategy

Climate-induced mobility has also been conceptualized by Kalin, who takes the following points of departure: "(i) climate and climate change per se do not trigger the movement of people, but some of their effects, in particular sudden and slow-onset disasters, have

the potential to do so; such movement may be voluntary, or it may be forced; and (iii) it may take place within a country or across international boundaries" (in McAdam, 2010, 85-86). Internal mobility is a less politically sensitive category than international migrants, refugees or cross-border displaced populations. Indeed, without recognizing climate change as such, the 1998 UN *Guiding Principles on Internal Displacement* cover displacement due to natural disaster (para. 2). Internal mobility does not, in most cases, address affected populations as refugees under international refugee law, and human rights law does not address critical issues such as their admission or stay. Experience from previous cases of sudden-onset disasters in the Pacific show that most of those displaced remain within national boundaries becoming IDPs. Kalin also proposed a typology for climate-induced environmental conditions that may trigger displacement including: (i) sudden-onset disasters; (ii) slow-onset environmental degradation; (iii) 'sinking' small island states; (iv) areas designated by the government as prohibited for human habitation, and; (v) unrest disturbing public order, violence and armed conflict (in McAdam, 2010, 85-86). Barnet and Webber (2010) emphasized that, in the Pacific context, climate is not the most significant driver of migration in the region as culture and place attachment are more decisive factors (Barnett & Webber 2010: 62). However, the Pacific Peoples have a long tradition of short-distance whole community relocation undeniably influenced by extreme environmental events and resource variability (Campbell et al., 2005: 3). As already seen in section 2 on terminology and definitions, planned relocation –recognized in 2010 at the 16th conference of the parties to the UN Framework Convention on Climate Change (UNFCCC) as an adaptation strategy (UNHCR-Brookings- Georgetown 2014) – is at the center of our study, including both sudden and slow-onset events as triggering factors. One of the reasons behind the choice of this type of Human Mobility (and not migration and displacement) is that lessons for future policies can be derived from direct experience of past cases of short distance, internal relocation in the region and is particularly relevant to study challenges associated to land.

3.3.1.3 Limits to adaptation and cultural cohesion in the Pacific

Some of the scientific literature on adaptation to the adverse effects of climate change underlines that adaptation should be better coordinated and mainstreamed with disaster risk reduction and development efforts and must be cautiously planned to avoid increasing risks of vulnerability (IPCC, 2014b). The fifth assessment report of the IPCC

has revealed interesting debates concerning adaptation opportunities, constraints and limits. Approaching climate adaptation by focusing on risk is particularly useful (Jones and Preston, 2011; Dow et al., 2012b). Understanding decisions to relocate through this lens can provide a strong ground for determining potential opportunities, constraints, and limits to adaptation (IPCC, 2014b). Moser and Ekstrom (2010) suggest that an individual's decision to relocate can take place as "adaptive transformation" to avoid intolerable risk, "[They] may be related to threats to core social objectives associated with health, welfare, security, or sustainability" (Klinke and Renn, 2002; Renn 2008; Dow et al., 2013a, b). In this thesis, "limits to adaptation" will be defined as: "the point at which an actor's objectives or system's needs cannot be secured from intolerable risks through adaptive actions" (Klein et al. 2014). Our analysis in chapter 6 will explore the limits to adaptation through relocation based on the following interpretation of "limits to adaptation": "when an unacceptable measure of adaptive effort is required, to maintain societal objectives referring to cultural cohesion among such objectives" (Klein et al. 2014). For Pacific Islanders, a cultural component must be central to adaptation efforts. This was reaffirmed in the 2008 Niue Declaration on Climate Change, which emphasizes that the peoples of the Pacific have the strong desire to live in their own countries if possible, in order to contribute to the preservation of their social and cultural identities (Nansen Initiative 2013).[19] The research project "Promoting human security and minimizing conflict associated with forced migration in the Pacific region," led by the Pacific Islands Forum Secretariat, revealed some of the main challenges that people forced to migrate report experiencing when arriving in new communities. In selected case studies in the Pacific (Figure 16), 25% of the challenges reported are cultural issues (the largest portion) and 12% are climate change related (Corendea et al., 2015:12).
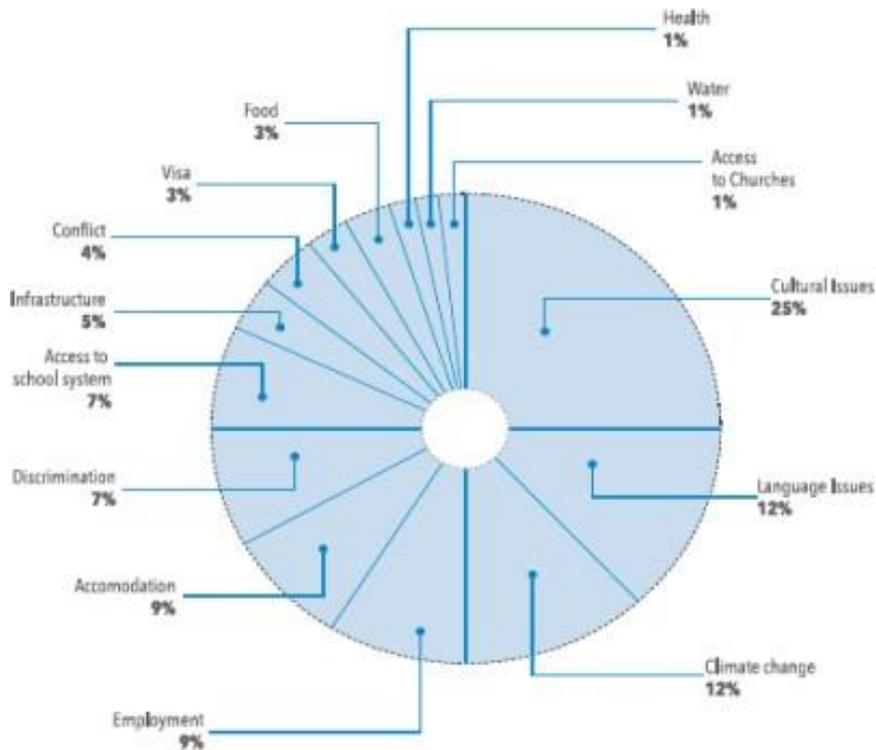
Figure 16: Main challenges faced by migrants when arriving in new communities (Corendea et al. 2015:12).

Pacific communities, who must choose to relocate in order to adapt to climate change, are facing the challenges associated with the loss of their traditional lands embedded by their cultural cohesion. The loss of sense of place and cultural identity associated with migration (Adger et al., 2009) could limit adaptation to climate change. Preston and Stafford Smith have observed in this context that "the feasibility of transformational adaptation may therefore be dependent in part on whether it results in outcomes that are perceived to be positive versus negative" (Preston & Stafford Smith 2009). John Campbell, in his study of historical cases of community relocation in the Pacific, also argued that "the sense of loss [associated with among other things relocation from traditional lands] is especially pronounced in the wake of environmental disasters that damage local land and resources" (Campbell et al., 2005).

Human mobility in PICTs, as everywhere, is based on a complex decision-making process involving multiple factors. Barnett and Webber (2010) observe that culture and place attachment are among the most decisive factors (Barnett and Webber, 2010: 62). However, the region is noted for its long tradition of environmentally motivated migration and short-distance whole community relocation (Campbell 2006; Campbell et al., 2005:

3), and climate change is likely to create long-term and immediate risks that will oblige authorities to relocate the communities facing them. PICT Governments have started introducing such strategies (Gerrard, 2008). Gradual, facilitated international and internal population relocations have already been suggested within the region. One can point to a number of examples of planned internal relocations undertaken recently, including a handful within Fiji (Vunidogoloa, Narikoso village and Denumanu Village, Vuya), where 800 coastal and river bank communities are becoming inundated and 45 communities will need to be relocated within the next 5 to 10 years (Chandra 2015). Within Pacific communities, culture and place attachment are among the most decisive factors in household decisions, including the decision to migrate (Barnett & Webber 2010: 62).

Such a depth of attachment to place and to land is evident in Papua New Guinea as reflected by results from the study of PNG community relocation deriving from desk research including discussions with key informants and practitioners in Port Moresby, Madang and in Europe – in particular, from local staff of the International Organization for Migration (IOM) – all of which were made in the framework of research for the Migration, Environment and Climate Change: Evidence for Policy (MECLEP) programme which was funded by the European Union and led by IOM. Within the framework of the six-country project, a key informant interview grid was developed and intended to be adapted to the context of each case study. Interviews derived from these interview grid/guidelines, as well as the surveys developed according to the framework of the MECLEP project methodology[20], were carried out in care centres populated by Manam islanders known as Potsdam, Assuramba and Mangem in Madang province outside of Bogia in Papua New Guinea, and on Manam island itself. Research for the PNG case study of the MECLEP project culminated in an assessment report in May 2015 led by research partners of the project. In this research, it was reported that many of the Manam interviewees continued to carry out burial practices on their home island after over ten years of living in another location, the physical resting place of their ancestors. The islanders interviewed insisted that the coconuts will always be sweeter, the fish more plentiful, and the soil richer on their island (Connell & Lutkehaus, 2016).

3.3.2 Adaptation and loss & damages (L&D)

3.3.2.1 Non-economic loss & damages

The precedent section on "limits to adaptation" revealed that the loss of cultural identities, attachment to place and to land is crucial in the context of the PICTs. Scedrescky (2019) provides a review of the literature on Non-economic Loss and Damage (NELD) (see Figure 17) and defines NELD as: "The climate-related losses of items both material and non-material that are not commonly traded in the market, but whose loss is still experienced as such by those affected. Examples of NELD include loss of cultural identity, sacred places, human health and lives". {…} The effects of such often intangible losses on human wellbeing are often hard to measure and are rarely included in estimates of observed and projected climate impacts, particularly where aggregates are sought. This can be considered a serious limitation. The fact that values other than economic are of substantive importance for people is evidenced in livelihood decisions that involve trade-offs to the benefit of retaining social or cultural capital at the cost of potential economic gains."

UNFCCC (2013)/Fankhauser and Dietz 2014 (Table 2)	Morrissey and Oliver-Smith (2013) (Fig. 1)	Andrei et al. (2015)
Loss of life	Loss of life	
Health	Adverse health impacts	Physical and psychological well-being
Human mobility (Dignity; Security; Agency)		
Territory (Sovereignty; Sense of place)	Territory abandonment	
Cultural heritage (Social cohesion, Identity)		
Indigenous knowledge (Social cohesion, Identity)	Decline of indigenous knowledge	
Biodiversity	Biodiversity loss	Biodiversity/species
Ecosystem services		Ecosystem services
	Destruction of cultural sites	
	Loss of culturally important landscapes	
	Habitat destruction	
	Loss of identity and ability to solve problems collectively	

UNFCCC (2013)/Fankhauser and Dietz 2014 (Table 2)	Morrissey and Oliver-Smith (2013) (Fig. 1)	Andrei et al. (2015)
	Loss of knowledge/ways of thinking that are part of lost livelihood systems	
	Social cohesion, peacefully functioning society	
		Education
		Traditions/religion/customs
		Social bonds/relations

Figure 17: NELD impacts reported in the literature Adapted from Serdeczny et al. (2016) in Serdeczny (2019).

When addressing barriers and enablers as well as limits to adaptation in the context of our study, we discuss categories of NELD included in each cases described in Figure 18 below mostly involving the "intrinsic material" places (loss of culturally important landscapes, territory, habitat) and artefacts (destruction of cultural sites, cultural heritage), "Instrumental material" (communal sites, production sites), "intrinsic non material" (intrinsic values, agency, identity). The role of land and land ownership is the structuring element in Pacific societies, it is the land that gives identity and meaning. This goes a lot further than simply the issue of owning land, as described by Doumenge (2014:15): "The control and the value of land are subject to a heated debate because their affective value remains, in the eyes of the indigenous population, largely superior to their monetary value."
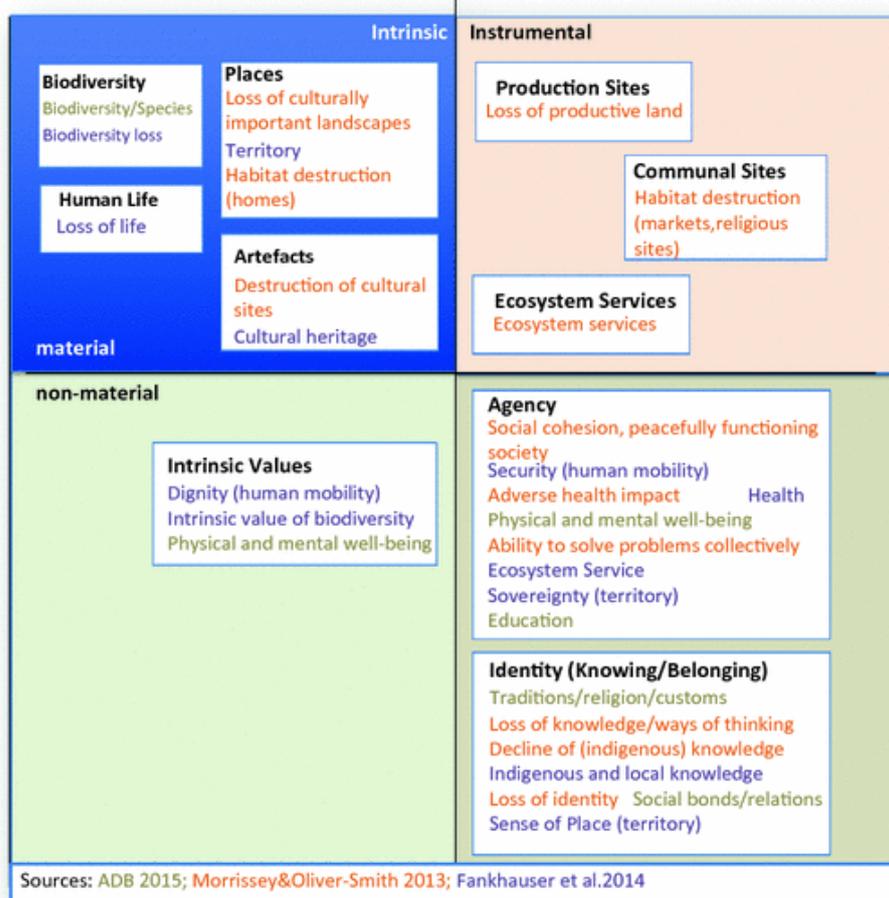
Figure 18: "Cases and categories of NELD as reported in the literature published by 2015". (Serdeczny et al. 2016)

The relationship between Loss & Damages (L&D) and adaptation has been extensively studied in Boyd and al. (2017) that identifies a typology of four perspectives with actions, research, and financing appropriate under each perspective (see Figure 19).

Perspective	Implications for practice: How to address L&D through action?	Implications for research: How to improve understanding of L&D?	Implications for finance: How to resource L&D?
Adaptation and Mitigation	Mitigation and adaptation.	All climate change impacts are potential L&D, therefore continuing research efforts to understand climate change impacts (e.g. climate change risk assessments for adaptation, climate services) are most relevant.	L&D does not require additional funding beyond existing climate finance.
Risk Management	Comprehensive risk management. Suggestions from interviewees include: insurance, insurance pools, catastrophe bonds, life insurance, DRR, sovereign disaster risk rating, climate services and early warning, engineering, capacity building.	Integration of disaster risk assessment with climate change risk assessment. Analysis of risk management tools to identify gaps.	Emphasis on insurance schemes and private sector finance.
Limits to Adaptation	Focus on options or contingency plans for vulnerable people. Emphasis from interviewees on: risk transfer, social safety nets, micro insurance, innovations in livelihoods (early warning), and participation.	Analysis of what is beyond adaptation. Research with vulnerable people to identify limits, monitoring and evaluation (M&E) for adaptation, climate change risk assessment with estimate of adaptation pathways and limits.	Emphasis is not generally on finance.
Existential	Focus on mitigation to avoid L&D, and ex-post measures to address loss, including: compensation, migration facilities, homeland resettlement, acknowledgement, official apologies, memorial, historical	Analysis of probability of, and vulnerability to, permanent, irreversible, long term, unavoidable changes. Assessment of L&D, which has already occurred. Research with vulnerable people to understand and anticipate loss,	Associated with calls for compensation, but emphasis that this is not the only or even most important aspect of addressing L&D.

Figure 19: Typology on adaptation and L&D. (Boyd, E. et al. 2017)

3.3.2.2 Adaptation and L&D as a spectrum for relocation projects (Pill 2020)

Based on that typology (Boyd 2017), Pill (2020) suggests types of non-economic loss & damages in planned relocation identified from the literature. His study also shows that planned relocation is beyond an adaptation response; it blurs into adaptation and L&D debates. Pill's theoretical framework describes L&D and adaptation visualized as a spectrum for relocation projects illustrated in the table below (Filho 2020: 144)
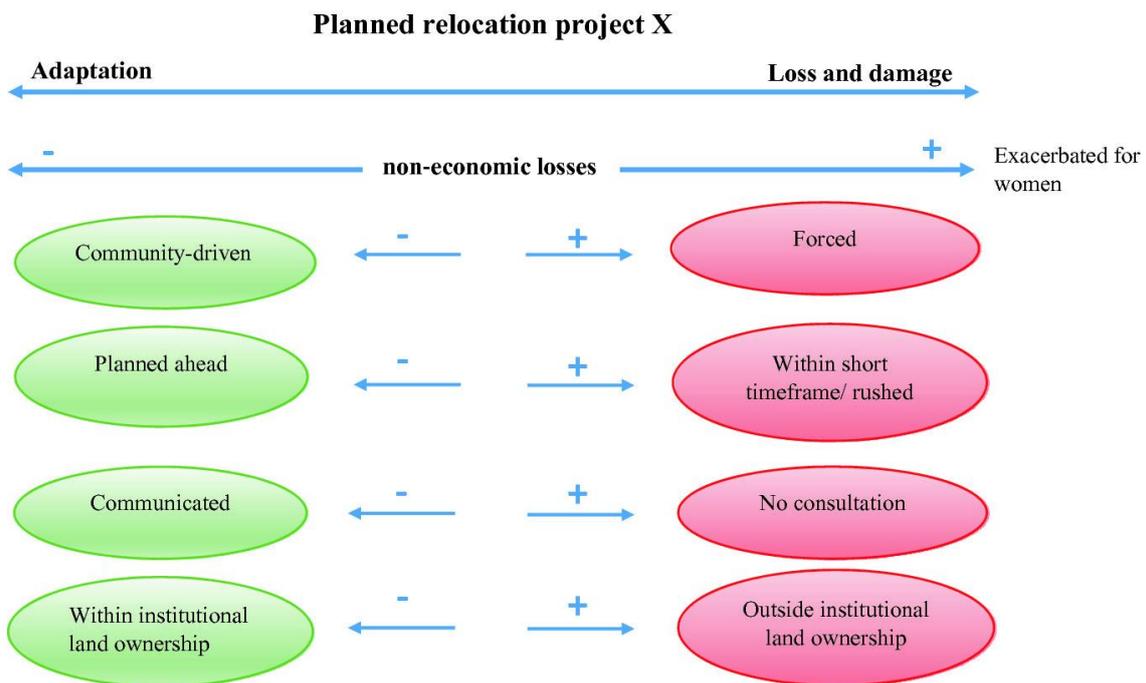
Figure 20: Theoretical framework on L&D and adaptation visualised as a spectrum for relocation projects (Pill 2020)

The frameworks reviewed above will be used to analyze our results in chapter 8 and we will attempt to contribute to this literature by drawing lessons on adaptation and L&D in the context of planned relocation.

3.3.3 "Trapped populations" in environmental migration

The body of literature on climate change and human mobility presents different levels of influence of the environmental factors on the resulting movement of population. This field of study reflects on the complexities of migration and some authors (Gray and Bilsborrow 2013), (Gray and Mueller 2012) underlined the need to provide new narratives to address the complexity of the phenomena. In this sense, this field of study is

contributing to the field of migration studies. Not being able to move is one of the emergent approaches to the study of the nexus climate change-human mobility. Indeed, studies on environmental migration include an emerging and growing body of scholarly work on "trapped" populations that integrates immobility within the "mobility paradigm" (see Foresight 2011; Black et al. 2011; Black et al. 2013; Black & Collyer 2014; Murphy 2014, Zickgraf et al. 2016; Adams 2016; Nawrotski & Bakhtsiyarava 2016). As early as 1994, Findley identified in his research on the effects of droughts in Mali that reduction of migration outside Mali was connected to the lack of resources from the affected population. Black et al. (2011a) emphasised on the fact that moving was expensive and risky so climate change may instead trap the most vulnerable (Black et al., 2011a). One of the main observations from the Foresight Project (2011)[3] was the need to investigate further on this category of population affected by climate change. Zickgraf (2018) underlines that the growing interest for the conceptualization of "immobility" within environmental contexts has not been matched by empirical data and lacks case studies that incorporate "immobility" in their research design. The relational dynamics of mobility are acknowledged by a spectrum of "(im)mobility" (Adey 2006). "Debates around Staggered versus Whole Community Relocation" will complement this section as it will describe debates present in the literature addressing the outcomes and strategies in place when moving a community either partially or entirely. By studying planned relocation as adaptation strategy to climate change in our study, we aim to address those dynamics and bring more empirical evidences to the environmental migration scholarship through data collected in Fiji by addressing the empirical gaps of "immobility" studies.

Our study will use the "aspiration-capability framework" (Carling 2002) particularly relevant for studying mobility and immobility as it provides the conceptual tools to analyze processes that lead to both mobility and immobility outcomes. This conceptual framework on "immobility" will be used to guide our observations and analysis.

3.3.3.1 "Perception" as key concept to address "immobility"

Observing "immobility" and "trapped population" in the relocation process implies that subjectives notions such as "ability" and "aspiration" to move are observed. Indeed, Zickgraf (2018:74) underline an important bias to consider in "immobility" studies; "Distinguishing those who wish to move {…} but remain in situ from those who do not

wish to move is extremely difficult, not least because people's judgement about whether it is necessary to move is likely to change over even quite short periods of time. One solution is to default to the perception of the participant as to whether he, she or they meet these criteria." The use of the perception framework in this study will therefore allow addressing this gap and giving a coherent grounding to complement the use of "immobility" as conceptual framework in our analysis.

3.3.3.2 "Perceptions" and the talanoa research framework

Using "perception" as key concept in our theoretical framework and in the field study allows theorising a more appropriate research methodology that will have synergies with Pacific peoples' ways of operating and values. Indeed, the focus on "perceptions" is likely to reflect better "Talanoa" (and tui kakala) proposed by Vaioleti (2006) as the most appropriate Pacific research theoretical and methodological framework for researching Pacific issues. Vaioleti (1999, 2003) defines "Talanoa" as "a personal encounter where people story their issues, their realities and aspirations" {…} allowing more "mo'oni" (pure, real, authentic) information to be available for Pacific research than data derived from other research methods". Helu-Thaman (1997) also define the metaphor of "tui kakala" as a "cultural synthesis of the infonnation, stories, emotions and theorising made available by Talanoa". Those concepts are argued in the literature on Pacific methodologies as key to produce relevant knowledge and possibilities for addressing Pacific issues. As we are not carrying an ethnographic study that would enable a long term connection with participants and therefore allow such concepts to be used in the methodology design, the use of perceptions as key concept in the study is a good way to come closer to the Talanoa methodology by observing issues, realities and aspirations with more "mo'oni" information.

The use of "perceptions" in our research design allows for an observation of a crucial concept in scholarly debates on the nexus climate change and migration and hopefully contributes to empirical evidences in the scholarly debate on climate change and human mobility. O'Brien (2009) notes a variety of worldviews in the context of climate change and argues that the minimum task in adaptation is to identify the standpoint of each stakeholder; "She argues that both traditional values, connected with survival and satisfying the basic needs, and so-called post-materialistic (postmodern) values are

involved in adaptation to climate change. Thus, adaptation is complicated by the need to address a spectrum of worldviews." (Otto-Banaszak 2011). Several authors also stress the centrality of perceptions about the environment and natural resources (Sudarmadi et al. 2001; Filip et al. 1983: 348; Feijoo and Momo 1991: 163). Irwin (1995). For example, the cultural theory of climate change risk (CTR) (*Figure 21 - Figure 22*) is an example of theory that addresses the variation in worldwviews in the context of environment and climate change. It argues that certain forms of social organization are associated with each of the types of worldviews. Different forms of social organization therefore view and manage risks differently (Rayner 1992). This can lead to conflict between groups with different institutional cultures about how they recognize risks and approach solutions (Thompson and Rayner 1998). CTR thus explains conflict as arising from mismatched worldviews about how risk is identified and managed. As such, it is the social organization of institutions, rather than the threat itself, that determines what risks are recognized, the process for obtaining social consent about each risk, and how liabilities and benefits arise (Wildavsky 1982; Rayner 1984; Gross and Rayner 1985) (Mc Neeley & Nazrus 2014: 507).
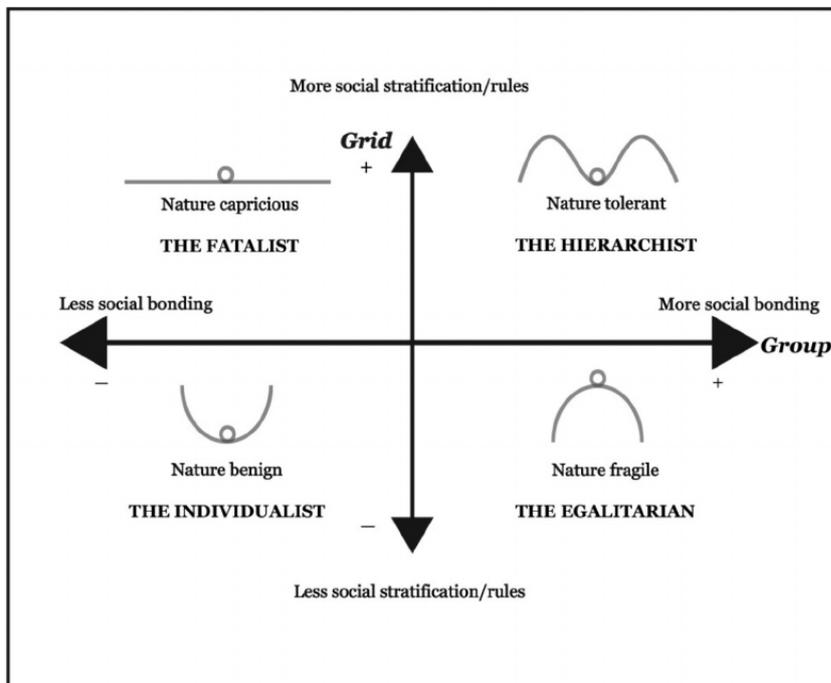
Figure 21: The Four Worldviews and Views of Nature Described in the Cultural Theory of Risk (Figure adapted from McNeeley and Lazrus 2014).

Institutional characteristics	Market individualistic	Hierarchical bureaucracy	Egalitarian
Ideal transactional mode	Competition	Routine procedures	Cooperation
Keys to success	Innovation and timing	Promotion through grades	Social and environmental balance
Driving values	Expansion	System maintenance	Equality
Decision making about risk	Individual judgment	Committee based; routinized procedure	Consensus based on extended public argument/dialog
Liability	Loss spreading	Redistributive	Strict fault system
Trust	Successful individuals	Long-established formal institutions	Participatory institutions
Myths of nature	Benign	Tolerant	Fragile
Views of climate	Naturally variable	Manageable within limits	Climate change tipping points, collapse

Figure 22: Three institutional culture types. Adapted from Rayner (1984), Rayner and Cantor (1987), Thompson and Rayner (1998), and Hulme (2009).

Ultimately, creating opportunities for sustainable relocation in conceptualizing planned relocation would be central both at policy level and to maintain the social construct of the affected community. The section below addresses the concept of "sustainable development" in relation to relocation strategies mooted in current debates and presents a reflection on what would mean "sustainable relocation" as a result of climate change in a context where customary land prevails.

3.4   Fostering sustainable relocation

Central to this thesis, is a review of the literature relevant to understanding the existing scholarly debates on customary land tenure and sustainable relocation in the Pacific region. We will explore the cultural relativist theory and international human rights theory (IHR) to address the issue of customary land tenure implying collective and individual land rights. Indeed, it is important to consider tensions surrounding debates on individual versus collective land rights. Conflicts have existed even before the Pacific states' independence, in part due to politics around land tenure, rights and ownership. Current and future relocation planning will need to consider these dynamics in negotiations over land.

Another key concept that will be discussed in the thesis relates to notion of "sustainability" in the context of relocation. The scholarly debates on this concept are extremely contrasted. The use of the concept "sustainable relocation" will therefore need to be approached with care. In order to define "sustainable relocation" at the theoretical and conceptual level in the thesis, I will first proceed with the examination of a contextual

definition appropriate to my research. The 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro defined "sustainable development" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Three protective dimensions are important: environmental protection, economic growth and social development (Bruntland Commission 1987; UNCSD 2012). Sustainable relocation could therefore be defined as "a process by which a number of {…} people from one locale come to live together in a different locale" (Lieber 1977: 343) whilst simultaneously ensuring protection of the environment, economic growth and social development for the present and without compromising the ability of future generations to do the same. After observing challenges around the definition of "sustainable relocation", I have undertaken an extensive interdisciplinary review of literature on relocation strategies in order to appreciate various points of views of sustainable relocation including firstly internal versus international relocation: international protection and polluter state responsibility and secondly debates around Partial versus Cohesive Relocation. Another step was to observe debates over Land Rights opposing proponents of Collective versus Individual Rights leading me to observe more in-depth the debates opposing Cultural relativism versus cultural universalism and International Human Rights theory.

3.4.1   Examination of contextual definition (UNCED, 1992)

The 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro defined 'Sustainable Development' as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." UNCED goes on to describe it as having three protective dimensions; "Environmental Protection, Economic Growth and Social Development." *Sustainable Relocation* will therefore be defined and assumed to refer to "a process by which a number of … people from one locale come to live together in a different locale" (Lieber, 1977: 343) whilst simultaneously ensuring protection of the environmental, economic growth and social development for the present and without compromising the ability of future generations to do the same. This literature review will critically engage with this definition and attempt to understand the different positions with respect to the following observation: "climate change continues to be viewed primarily through an ecological or

economic lens, with the social and human rights implications of climate change receiving little recognition" (Von Doussa, 2008). Therefore, arguments around traditional land rights will be identified and analysed under the scope of "social development" that "offers a comprehensive and dynamic approach to promoting social well-being today" (Midgley, 1995: 13-14). Arguments reflecting on climate change being perceived "through the economic lens" will also be identified and developed. The theoretical framework will be tested through this section to assist in analyzing literature on Land Rights and their role in forming a sustainable, adaptive response to climate change in the PICTs. The following section will focus on *Sustainable Relocation* to develop a deeper understanding of the concept through examination of key debates concerning relocation strategies.

3.4.2   Relocation categories and approaches

Relocation strategies may take various forms and can be organized differently according to varying priorities. *Local relocation* or "on-site" relocation (ADB, 1998), takes place within national boundaries. In the context of the Pacific, where relocation could be closely related to sea levels in coastal areas, *local relocation* could imply relocating communities to more elevated land positions close to their existing locale (UNHCR, 2008: 15). *National relocation* takes place within the same country. Both local and national relocation can occur *within* or *beyond* the affected population's *land tenure*[25] boundaries (Campbell et al., 2005: 39). These are critical to the social, economic and political structure of Pacific communities and reflect "the relationship, whether legally or customarily defined, among people, as individuals or groups, vis-à-vis land" (FAO, 2002). The affected individuals in national and local relocation can be compared to internally displaced persons (IDPs), who share the same legal status as any other citizen and for whom the State has an obligation to respect, protect and fulfil the realization of rights. A durable solution is defined as a situation in which a displaced person is no longer in need of any specific assistance and protection related to their displacement and can enjoy their human rights without discrimination (IASC, 2010). *Regional relocation* occurs beyond the national borders but within the region, and still presents an opportunity for affected communities to relocate within similar land tenure systems. For this reason, it has been categorized by some authors as *internal relocation* (within the same land tenure boundaries). Finally, *international relocation* relates to relocation taking place

beyond the national *and* regional boundaries. Proponents of international relocation occasionally assign the responsibility and burden of compensation to those states responsible for historical emissions (see Conisnee and Simms, 2003: 36), with limited success.

3.4.3 Debates around internal versus international relocation: International protection and polluter state responsibility

Academic and policy debates on relocation approaches include proponents of international relocation who suggest this option as a form of compensation by states responsible for historical emissions for their "ecological debts" to climate-affected peoples, independent of the actions of their own governments (Conisbee and Simms, 2003: 36). Relocation beyond national borders raises questions concerning the determination of an international status for affected peoples, which is currently lacking. Fundamental contestations of an "environmental refugee" status have been highly present among policymakers and international institutions such as the UN High Commissioner for Refugees (UNHCR). The mobile people in question fail to meet the criteria for refugee status laid out in the 1951 Convention Relating to the Status of Refugees (Tsuchida, 2008). The majority of people affected will furthermore remain within national borders, if the dilemma at hand is not adequately addressed (Lopez, 2007). Scholars and practitioners argue inclusion of environmental factors in an international status is politically unviable, fearing such discussions will lead to sensitive debates around sovereignty, state responsibility and security of receiving states. A separate protection category may also weaken the treatment of convention refugees, undermining state adherence to the existing protection regime, which is relatively well defended in the international community (UNHCR, 2007; Guterres, 2009). In addition to placing additional pressure on already overstretched capacities to address current protection needs, a new category would lead to difficult issues of priority treatment of new persons and current *de facto* refugees (Biermann & Boas, 2007).

Parallel to this debate, a number of Pacific-based scholars argue against international relocation in most cases, suggesting the option is not viable given the costs and problems associated with relocation are directly linked with distance and boundary crossing. In addition, they argue, "current social, political and economic conditions hinder relocations

across international boundaries." (Campbell et al., 2005).

3.4.4   Debates around staggered versus whole community relocation

These debates are directly linked to the preceding section on "Trapped populations in environmental migration" as it relates to debates around so-called *staggered* versus *whole community* relocation; questioning the outcomes of moving a community either partially or entirely. We will detail the perspective of proponents of staggered relocation first. In support of staggered relocation, the statistical relocation approach developed by Zahir, Sarker and Al-Mahmud infers that the relocation strategy should target a selected and restricted portion of the affected community whilst proposing a local adaptation approach for the rest of the affected people (Zahir et al., 2009: 226-350). The argument for this approach is that in focusing on a minimum number of members of the community, it diminishes human and financial costs engendered by full-scale community relocation. However, this statistical approach can be criticised for not taking into account the cultural and sociological elements of the region vis-à-vis community cohesion. Campbell, for example, states that "community disarticulation is arguably the most complex part of the displacement and reconstruction process" (Campbell, 2010). The emphasis on social aspects of relocation was already exhorted years before by Perry and Lindell (1997), emphasising the importance of preserving social structure and cohesion by stating that "special attention should be given to social and personal needs of the relocatees {…} (and that) social networks need to be preserved" (Perry and Lindell, 1997).

Lieber presents a more historical critique of staggered relocation, concluding from a comparison of ten colonial-era relocations in the PICTs that preservation of cultural and community cohesion in any relocation of population in the PICTs is paramount (Lieber, 1977; UNFCCC, 2005: 14).

The aforementioned debates underline the importance of community cohesion in various positions on relocation strategies particularly in the context of the Pacific region. The preservation of community cohesion in the Pacific is strongly dependent on the preservation of land tenure systems, which are central to the social structure of Pacific societies. Land tenure boundaries, discussed in detail below, could therefore serve as the main borders to be considered when planning for relocation of communities.

3.4.5 Debates over land rights: collective versus individual rights

The diversity of customary land rights in the Pacific region might contributes to the complexity of the relocation process. Some stakeholders, ambitious youth and private development projects face contention to replacing collective land rights with individual land rights. Evolutionary theories of land tenure[4] based on neoclassical economic theory are of interest here. Those theories stress that: "{…} They hold that customary systems, based on common property and extensive practices, are efficient when there is weak pressure on resources. However, under pressure from demographic growth and the market, there is a gradual move towards individualisation of rights and expansion of commercial transactions. At the same time, the role of customary authorities in land allocation is eroded and eventually disappears. As a result of this process, "private individual and family ownership become the rule" (Lavigne Delville, 1998: 20).

A "non-western" concept of human dignity, "communal ownership of land", refers to "societies and institutions that aim to realize human dignity entirely independent of the idea or practice of [individual] human rights" and where *collective rights* predominate (Donnelly, 2003: 58). In comparison, international human rights (IHR) are based on "the idea and practice of human rights - equal and inalienable rights held by all individuals against the state and society" (Donnelly, 2003: 2).

Scholars argue that collective forms of ownership do not allow individuals to be entrepreneurs, make profit with their land through investment or savings, better attribution of resources, allow for development that improves the overall standard of well-being (Midgley 1995: 13-14). Gosarevski, et al. (2004) postulate, for example, that customary forms of land tenure are the principal causes of poverty in Papua New Guinea (Gosarevski, et al., 2004: 137). Shifting to an individual form of property would purportedly improve living standards, so that poor and marginalized communities can be better included and supported (Gosarevski, et al., 2004: 134). Others suggest customary systems have thus far "not been successful" (Lea, 2009:63).

Collective forms of land rights may deny certain individual economic and political rights and reinforce inequalities. Customary land-owning groups maintain a "culture of violence, {…} notably against women" (Gosarevski et al., 2004: 134*).* Dividends of the system may be counted in social deprivation, marginalization of groups, reproducing

discriminations and gender deprivation. For some authors, these concerns challenge the very notion of international human rights. Arguments presented by the proponents of Individual Rights defend the implementation of individual Land Rights in the region in the name of Human Rights protection and via two main dimensions: ensuring that 'individual economic rights' are established thereby avoiding *social deprivation* and *economic stagnation* in the region by improving land productivity, profitability and standards of living, the ability to cope with poverty and finally creating a more equitable society based on the defence of the Universal principles of justice. Addressing the Individual Rights proponent themes around *social deprivation*, and *reproducing discriminations* and gender deprivation, Kelly Haines-Sutherland highlights their tendency to assert that the very notion of IHR, based on a concept of rights of the individual, contradicts Customary Law and the implication that Collective Land Rights are potentially discriminatory. She contends that this reflection on Human Rights ignores many dimensions of human dignity relative to non-Western Societies and PICTs, and indeed that Collective Land Rights is a non-western conception that must be understood and not ignored (Haines-Sutherland, 2009: 2).

"Logistical" approaches to relocation focus on economic growth and development. On the other hand, proponents of collective rights align more with a "sociological approach," supporting internal, cohesive relocation and collective land rights. Proponents of collective rights defend a different understanding of the sense of duty which should be respected (Follesdal, 2005; Haines- Sutherland, 2009: 2).

3.4.6   Debates over cultural relativism versus cultural universalism

Cultural relativism[29] is in tension with *universalism,* described by Galtung (1971) as: "the problem of conflicts between Universal Human Rights norms and indigenous social practises that rest on alternative conceptions of human dignity" (Galtung, 1971: 83). "Reality" only relates to a social construction in accordance with the prevailing discourse of society (Winch 1964). Human value systems are considered by many to *not* in fact be culturally universal (Ayton-Shenker 1995). The New Zealand Law Commission supports these perspectives arguing that the prevailing concept of individual rights "ignores alternative conceptions of rights in non-Western societies, such as Pacific Nations" (NZLC, 2006: 31). Merry (2006) provided an interesting case study where she observed

contradiction between the Fijian practice of *bulubulu*, a form of *i soro*, misunderstood at the 2002 hearings of the Committee on the Elimination of Discrimination against Women (CEDAW) in New York. Merry notes the fundamental tension between equality and universal rights and the maintenance of cultural diversity and urges understanding of 'the possibility that there are embedded in local communities' alternative visions of social justice that are not founded on conceptions of rights but on ideas such as sharing, reconciliation, or mutual responsibility' (Merry 2006:133).

Thaman (2000) argues that individual rights are protected by customary law but are more largely contextualised via collective rights. He asserts that "Pacific societies have long recognized the collective rights of groups and have traditionally protected individual rights in the context of these groups," (Thaman, 2000: 393). Hunt argues that cultural rights have fallen victim to an uneven international system which privileges civil and political rights (Hunt, 2000: 25). The core conflict is conceived to be tensions in current power relations in the international community, in which the hegemonic Western approach to defending rights is built around the global economy (Smith 2007: 67). Rights are not only culturally specific but politically and economically oriented (Treanor 2004). Notions of group rights in IHR take their origin from an individual standpoint, in the context of "modern" societies. Proponents of collective land rights argue that an imposition of human rights, including individual economic rights, is a politically motivated ideology entrenching the spread of a Universalist vision of economy which does not reflect on the local and cultural specificities of each society.

In addition, some question the very foundation of the argument that a system based on individual rights helps to defend individual economic and political rights. There is little evidence linking the existence of an individual property rights system and increased agricultural productivity and wealth (Gosarevski et al., 2004: 134). Hauffman (2009) argues that a radical deviation from traditional land administration would lead to devastating land poverty (Hauffman, 2009: 15). An intermediate stance exists that advocates for a balance between the two positions. In this scenario, communities choose between traditional forms of land tenure or an individual system (Gosarevski et al., 2004: 135). The discussion above illustrates that proponents of collective rights have a culturally sensitive focus based on cultural relativist theory. This is in contrast to proponents of individual rights in accordance with IHR theory, a focus based on

Universalist theory, which defends merit propagated through economic growth and social development.

The debates illustrate the possibility of pursuing an intermediary position that would improve current practices and build on existing customs. This intermediary position is developed through a "middle ground approach to relocation" that is reflected in Figure 23. This approach suggests that it is essential to combine logistical and sociological approaches when addressing planned relocation.

The approach suggests that this would allow PICTs to align with "modern" discourse to deal with the new challenges posed by climate change while involving customary leaders with sensitivity to cultural norms and values. In order to ensure socio-economic wellbeing, the approach suggests including the population concerned through consultation and negotiation concerning their land rights and options. These notions are further discussed in all through the thesis as the study focusses on the role of customary authorities, local (impartial) land experts and affected communities during the relocation process. As key players in land negotiations, this study questions the role of these actors in preventing land tensions in planned relocation based on the hypothesis of "Combined approach of relocation" or "Middle-Ground approach to relocation" (Gharbaoui, Blocher 2016). The next chapter (4) describing the thesis methodology will explain how this approach will be tested through our field study.
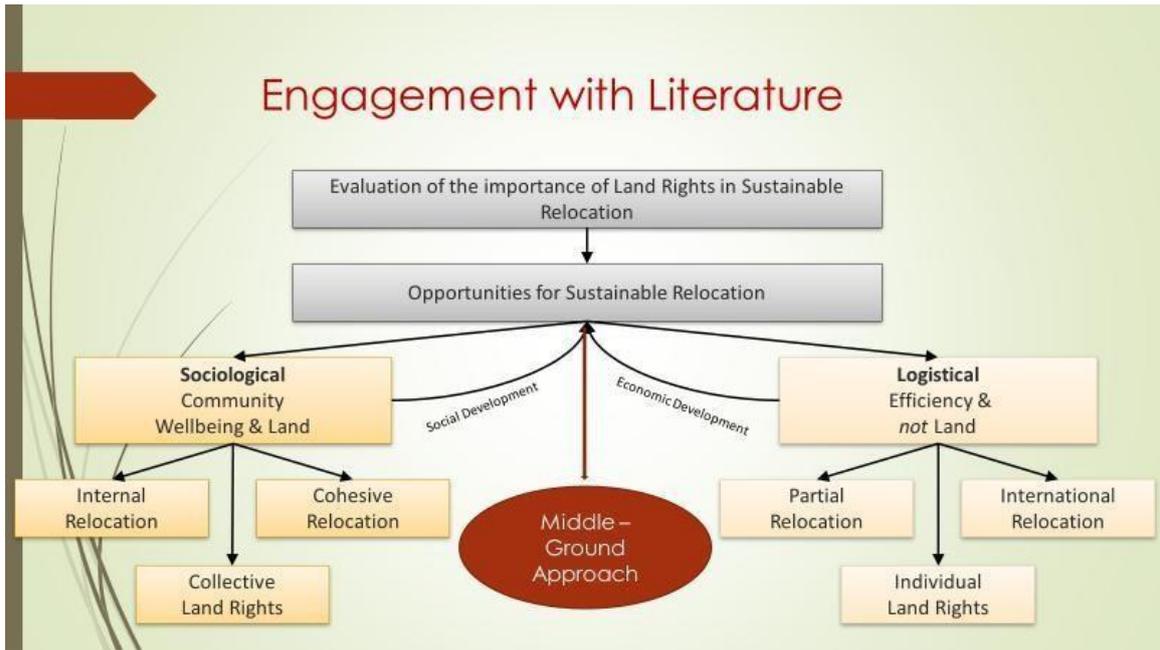
Figure 23: Logistical and Sociological approach to relocation revealed by an exploration of the literature (Middle-Ground approach).

3.5   Conclusion

This chapter reviewed some of the key literature relevant to engage with our theoretical framework in the next chapter. This was based on empirical and conceptual discussions on planned relocation as a policy process and a social construct in the context of climate change and as well as critical engagement with debates around land right s and sustainable relocation. One of the aims of this thesis is to observe interactions and dynamics; barriers and enablers, synergies and tensions between state and customary institutions in the context of planned relocation. Therefore, engaging with the relocation process taking a policy perspective, led us to observe literature having at its core concepts such as "barriers" and "enablers" to study governance of adaptation to climate change. We have engaged with Biesbroek et al. (2013a) particularly relevant to address barriers to adaptation. In Biesbroek's model, three dominant philosophies in the study of governance were explored; "the optimist", "the realist", and "the pessimist philosophy" observed through the scope of four analytical lenses for studying barriers to the governance of adaptation. One of the main conclusions from Biesbroek's model is that there is a need to change from the inventory questions of 'if' and 'which' barriers to adaptation exist towards more analytical questions as to 'why' and 'how' these barriers emerge. Our review of the literature also revealed two other conceptual models studying relocation as policy process of relevance to our study: The "managed-retreat" conceptual model (Hino 2017) and the "conceptual model of government action or inaction on planned relocation of vulnerable populations" (Mortreux et al. 2018). The "managed-retreat" conceptual model (Hino 2017) presents an interesting framework to analyze planned retreat and the role of political will in the process useful to provide lessons on planned relocation as policy process.

The chapter then engaged with relocation as social experiment with a particular focus on limits to adaptation, cultural cohesion and land in the Pacific. As barriers and enablers are central in this study, we have also engaged with relevant literature from social sciences providing some insight on limitations to adapt. Pacific communities, who must choose to relocate in order to adapt to climate change, are facing the challenges associated with the loss of their traditional lands embedded by their cultural cohesion. The loss of sense of place and cultural identity associated with the move could limit adaptation to climate

change. We have then reviewed the concept of "Non-Economic Loss and Damages" (NELD) associated with adaptation as examples of NELD include loss of cultural identity and place of attachment central in places where customary land ownership prevails. We have discussed Serdeczny (2019) categories of NELD involving the "intrinsic material" places (loss of culturally important landscapes, territory, habitat) and artefacts (destruction of cultural sites, cultural heritage), "Instrumental material" (communal sites, production sites), "intrinsic non material" (intrinsic values, agency, identity). We have then reviewed Boyd (2017) and Pill (2020) typology suggesting types of non-economic loss & damages in planned relocation identified from the literature. These studies ultimately show that planned relocation is beyond an adaptation response; it blurs into adaptation and L&D debates. This review allowed us to understand further how the role of land and land ownership is a structuring element in Pacific societies and how it is land that gives identity and meaning. . Keeping central our focus on barriers, limits and enablers, we have also explored studies on environmental migration including an emerging and growing body of scholarly work on "trapped" populations that integrates immobility within the "mobility paradigm". We have engaged with various authors discussing "immobility" including Black et al. (2011a), Adey (2006) and Zickgraf (2018); all underlining that the growing interest for the conceptualization of "immobility" within environmental contexts has not been matched by empirical data and lacks case studies that incorporate "immobility" in their research design. Relevant to "immobility" are debates in the literature around "Staggered versus Whole Community Relocation" addressing the outcomes and strategies in place when moving a community either partially or entirely. This review was useful to understand gaps present in the social sciences literature relevant to address barriers, limits and enablers to planned relocation as adaptation strategy to climate change in the Pacific. We will therefore aim to address those dynamics and bring more empirical evidences to the environmental migration scholarship through data collected in Fiji by addressing some of the empirical gaps of "immobility" studies. For that purpose, we have reviewed the "aspiration-capability framework" (Carling 2002) particularly relevant for studying mobility and immobility as it provides the conceptual tools to analyse processes that lead to both mobility and immobility outcomes. This conceptual framework on "immobility" will be used to guide our observations and analysis in the next chapters.

Finally, we have addressed addresses the concept of "sustainable development" in relation to relocation strategies mooted in current debates around land rights in the Pacific. These have been examined with an attempt to discuss current literature on the importance of land rights in relocation. Within this assessment, we have engaged with literature on the land tenure systems in the region and consider ongoing scholarly debates between defenders of collective rights and proponents of individual rights. These debates illustrate the possibility of pursuing an intermediary position developed through a "middle ground approach to relocation" suggesting that it is essential to combine arguments present in the literature around logistical and sociological approaches when addressing planned relocation. The approach suggests that this would allow PICTs to align with "modern" discourse to deal with the new challenges posed by climate change while involving customary leaders with sensitivity to cultural norms and values. In order to ensure socio-economic wellbeing, the approach suggests including the population concerned through consultation and negotiation concerning their land rights and options. These notions are further discussed in all through the thesis as the study focusses on the role of customary authorities, local (impartial) land experts and affected communities during the relocation process. As key players in land negotiations, this study questions the role of these actors in preventing land tensions in planned relocation based on the "Middle-Ground approach to relocation" (Gharbaoui, Blocher 2016). The next chapters describing the theoretical framework and thesis methodology will explain how this approach will be tested through our field study.

CHAPTER 4
Broad conceptual framework: Exploration of the concept of hybridity and pluralism

4.1 Introduction

This chapter will examine the notions of hybridity and pluralism to provide the broad framework to contextualize the synergy between the state-based and formal strategies for relocation on one hand and the traditionally-centred indigenous approaches on the other. As we shall see later, multiple players and approaches are involved in climate change-induced relocation and both the concept of hybridity and pluralism are used here to accommodate ansd understand these diversities. While the hybridity approach has been used by various scholars in the study of relationships between formal and informal processes and narratives, there are also shortcomings as we will see later. But there are also selected aspects of it which we can use to explain some forms of relationships between the two modes. The pluralist approach has some similarities with hybridity but differs in the sense that the pluralist approach does not necessarily mean the mixing of two systems (which can simply exist side by side) unlike what hybridity proposes.

4.1   Critically engaging with hybridity

There is a limited but growing body of literature on hybrid systems which tends to focus only on a relatively small group of countries (Mallet, 2010).   Hybridity as a concept provides an alternative approach that "overcomes the notion of the state as being the superior and ultimate form of political order per se and frees the debate from its current state-centric bias" (Boege, Brown, Clements, & A. Nolan, 2009b: 88).

Hybrid political orders have been depicted in the literature as a way to include custom in governance. Boege (2006) in his study of post-conflict, peace and state-building in Papua-New-Guinea, describes hybrid political systems as a mixed between local customary forms of governance and modern state governance with overlapping mechanisms. Boege, et al (2009) argued that this approach is:

> {…}an alternative to the statist approach to governance and advocate what
> they call hybrid political orders: In hybrid political orders, diverse and

competing authority structures, sets of rules, logics of order, and claims to power co-exist, overlap, interact, and intertwine, combining elements of introduced Western models of governance and elements stemming from local indigenous traditions of governance and politics, with further influences exerted by the forces of globalisation and societal fragmentation (in various forms: ethnic, tribal, religious) (Boege, et al 2009:17).

Boege et al (2009), Naitoro (2002) and Allen et al (2013) use the term 'articulation' to describe the manner in which the relationship between customary, church, and state forms of governance are determined. Mac Ginty (2013: 447) on the other hand uses the terms "the fusion of new political formations" (state-building, or externally introduces systems of governance) "with customary institutions and practices". Bergh (2009) in his study of emerging hybrid political orders in rural Moroccan villages justify the need to use the concept of "hybridity" to provide solutions in a context where customary institutions are an important part of society. For instance, he argues that "by focusing on the 'modern' formal institutions, we miss out on an opportunity to fully understand the dynamics of customary institutions, and how the two interact to lead to the emergence of hybrid political orders." (Bergh 2009: 52).

Literature on political "hybridity" relevant to the context of the Pacific includes an important body of literature (Mallet 2010, Corendea 2007, Clements and al. 2007 etc.), Mallet (2010) discussed the concept of "hybrid political orders" that the Australian Centre for Peace and Conflict developed, based on field research undertaken in a number of South Pacific countries.

Also, relevant to the context of the Pacific region, Corendea (2007) proposed the "hybrid approach". The 'hybrid approach" is a legal research tool using human rights, environmental and migration law in climate change-related case analysis with the aim to allow a comprehensive interpretation of the relationship between climate change and customary law in the Pacific. The two main outcomes of the "hybrid approach" are: (i) the importance of a regional approach that would consider both customary institutions (characterized by collective and community forms of governance) and Weberian institutions (characterized by the State practicing domination over community) (ii), International hybrid law as legal research tool which "concurrently, indivisibly,

interdependently, and interrelatedly examines a climate change case study from three perspectives: environmental law, human rights and refugee (migration) law. Hence, the research is simplified, using a single lens as a replacement for a three-way analysis." (Corendea 2016: 9).

The model of "hybrid governance" which involves an interrelationship between traditional and western modes of leadership is associated with   the Pacific region, according to   Clements, et al (2007) in their paper, "State Building Reconsidered: The Role of Hybridity in the Formation of Political Order". The authors use the concepts of "substitution" defined as "the identification of functional equivalents of the state outside state institutions.", "complementarity" described as "{…} the identification of areas of overlap between modern state approaches and customary approaches" and "incompatibility" or "the identification of customary approaches that conflict with modern state approaches." (Clements and al. 2007: 52). The authors argue that applying those concepts to analyze governance in the Pacific might reveal where traditional institutions and Weberian forms of state governance have overlapping advantages. From this analysis, it would be possible to understand "hybrid" forms of governance that build upon the strengths of both systems.

Indeed, we can say that there are various forms of political hybridity in the world, including the Pacific region. Figure 24 illustrated by Clements et al. (2007), provides a useful starting point for analyzing political order and governance in a specific community to try and determine whether 'legitimate' local forms of hybrid governance are present and could have an application more generally in the context of planned relocation studied as policy process.
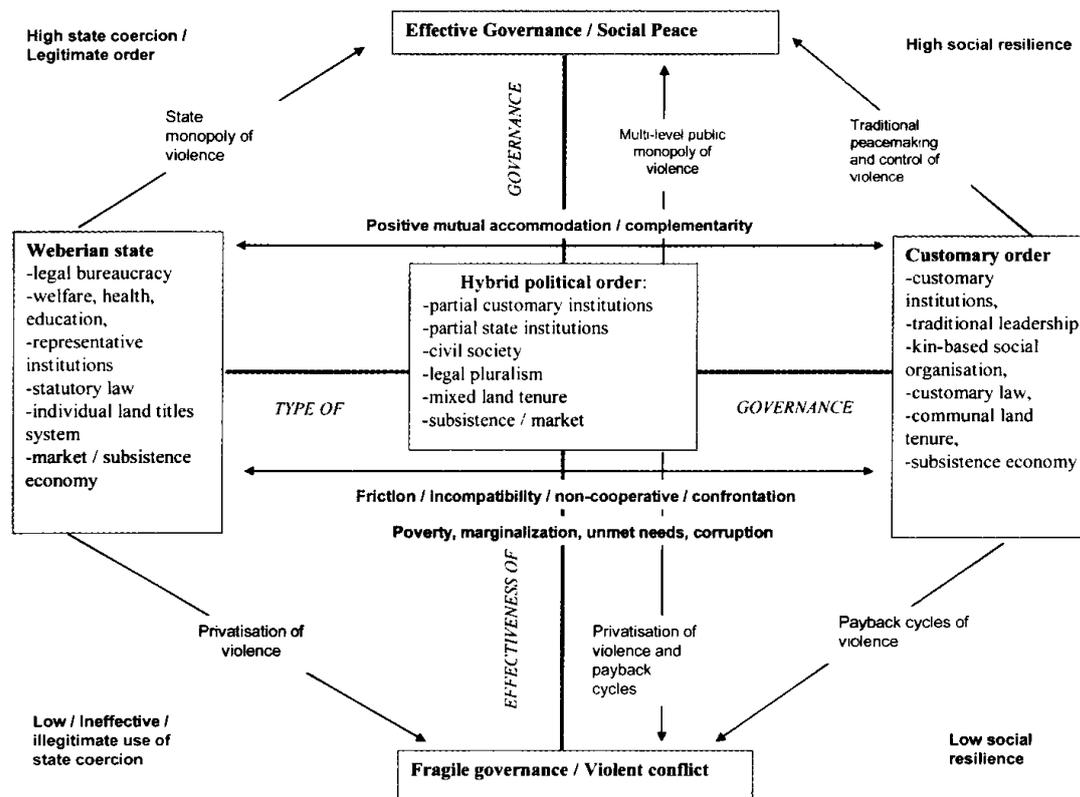
Figure 24: "hybrid political orders", Clements et al (2007:53).

The above figure illustrates multidimensional and overlapping spheres of governance depicting hybrid political orders including customary institutions, state institutions, civil society, pluralism, mixed land tenure and the subsistence/market interface. Clements et al. (2007) argues that the concept of hybrid political orders is a system broad enough that it allows the inclusion of a variety of non-state customary forms governance functioning, with varying degrees of compatibility together with state forms of governance. For the authors, this concept emerged from the need to adapt the modern state model of governance that had not evolved towards facilitating democratic participation and inclusion of indigenous cultures. As explained by the authors;

> The schema presented above is aimed at developing some research
> hypotheses on factors that advance or impede functioning, effective and
> legitimate political order. In this schema there are three ideal types of
> political order and governance: namely, the ideal type of the Weberian state
> at one end, and the ideal type of non-state customary order on the other, with

the hybrid political order in between the two. The Western OECD states come closest to the Weberian state in reality, while traditional Melanesian and Polynesian societies were forms of customary order (this type, however, can hardly be found any longer in today's world). In the Pacific region as well as in other parts of the Global South the hybrid type of political order dominates: it combines elements of both the Weberian and the customary ideal type, but normally in an unintentional and ad hoc fashion. (Clements et al 2007:53).

The authors have underlined that this approach would enable identifying and building on the strengths of community as adaptable entities while ensuring ways in which security might be guaranteed by both traditional and 'modem' institutions. Indeed, as explained by Clements et al. (2007); "Policy makers need to ensure that the Weberian model possesses a legitimate monopoly of violence and that communities are able to generate high degrees of social resilience. This is best achieved by attending to the positive features of the spheres of state, civil society and customary rule." (Clements and al. 2007: 52-53). However, Cassells (2016) argues that rather than the state having a monopoly, a hybrid form of law enforcement exists in a situation such as peace in local communities that are often guaranteed by traditional chiefs by applying customary law. The police may intervene only upon the invitation of chiefs (Boege, Brown, & Clements, 2009: 18).

In places where the state is "weak," community resilience and the customary institutions should be seen as "assets that can be drawn upon to forge constructive relationships between communities and government" (Clements et al., 2007: 51). Weberian state institutions and mechanisms are generally new not well developed in Global South countries. One way to address this has been the use of plural forms of governance where "the most fundamental and reliable safety net is often provided by kin groups who operate on customary norms of reciprocity and sharing" (Boege, Brown, & Clements, 2009:19). Clements and al. (2007) warn that legitimate system of governance ignoring those dynamics is likely to fail.

{…} concerns have been expressed about how attempts to instrumentalise hybrid governance can be appropriated into broader neoliberal agendas and used to hollow out already 'weak' states, including by outsourcing public

goods to poor communities themselves. Likewise, there has been concern about 'romanticising the local' and downplaying significant power differentials based on gender, age, ethnic or other divisions. All of which is to suggest that if the concept is used without sufficient attention to the relevant power dynamics and conflictual elements in specific contexts, it can ultimately serve to reproduce existing patterns of hierarchy, domination and relations of power. (Dinner 2018:4)

Macdonald Cassells (2016) observed how the concept political hybridity applied to some villages in Solomon Islands. His results underlined that political hybridity was a suitable form of governance which allowed the church and customary chiefs to govern alternatively to the state-approach of governance but this turned out to be a failure because it did not match the reality of Solomon Islands. Roughan (2001), as cited in Moore (2004), emphasized on the failure of formal forms of governance in Solomon Islands explaining that that the statist approach created disillusion amongst the population of Solomon Islands during the 1998-2003 crisis. This resulted on the population expressing a strong will to own their future again through a constitutional reform that has been used by successive governments since 2001 to make political statements without seriously examining it as a major platform to address and sustain peace, stability and inclusive development (Nanau 2017). The new constitution proposed a federal; state and a community government. Macdonald Cassells (2016) argues that these three forms of governance (federal, state and community) provide opportunities for hybrid village political bodies to engage more successfully with the state.

(Boege, 2006) observed that a mutual accommodation between state-based institutions and the custom has emerged in the last decades in Papua-New Guinea. However, state rebuilding in Solomon Islands followed standards of the World Bank good governance practices considered inappropriate as directly deriving from Western models of state that have no relevance to Solomon Islands society. In this context, more inclusive and context appropriate non-static approach to governance needed then to emerge and "political hybridity" has been discussed in the literature as one viable option that could be used to form constructive relationships between communities and government (Macdonald Cassels 2016: 36). Political hybridity has various forms and is not new in Melanesia. For instance, the Solomon Islands has been extensively used as example in the literature on

political hybridity in the Pacific (Harrison, 2007). Harrison (2007) argued in (Macdonald Cassells 2016: 29) that "the ability to move between western and customary domains permeates the very fabric of society and allows Solomon Islanders to transact change across difference" emphasis on the fact that hybridity can also simply be viewed as a new way of analysing a process of continuous adaptation that has been taking place since the first European colonization.

Gegeo (1998: 1) discussed the ability of the Kwara'ae people of Malaita in Solomon Islands to adopt and modify practices and knowledge from outside while integrating "traditional knowledge with introduced knowledge" as they were struggling between two 'opposing discourses'. Gegeo (1998:305) then observed in his study that one way to deal with that was to "take an idea that is an abstraction and give it 'life' through the work of their own hands". The recognition of indigenous knowledge and governance mechanisms are therefore seen as critically important for this process. Drawing on Antonio Gramsci's theory of counter-hegemony, Gegeo states that, "Dehegemonisation starts to take root once anchored in people's epistemology, because it is when they create truth about something that they form a discursive framework on the basis of which they act" (Gegeo, 1998: 8).

The literature on political hybridity also addresses the negative aspects of formalizing linkages between the state and customary institutions. White (2007), for instance, warns about the risks of denaturing traditional leadership and its legitimacy in local communities if chiefs are incorporated in structures of government. Macdonald Cassells (2016) describes this phenomenon in the following terms: "Formalizing the informal and legislating custom may diminish indigenous authority which has an intrinsic fluidity not found in the more prescribed and codified structures of the state". He also flagged that there can be friction between people's customary identity and their identity as a citizen of the state. This could be problematic as in Melanesia for example. Brigg (2009:150) explains that "selfhood is less bounded and separate than with westerners" so personal identity is mostly embedded in group identity. Furthermore, Gegeo (1990:8) along the same line, explains that "concepts of person in Pacific cultures tend to be highly relational, with notions of relatedness elaborated in a great variety of ways in social life" which is very different from the individualized 'liberal self' citizenship (Williams & Young, 1994). Britain acknowledged that at independence that it would be a challenge

for South Pacific colonies to form a government under the Westminster system as societies were ethnically and politically extremely diverse. From mid-1980s, "good governance" agendas imposed by donor organizations such as the "World Bank" on many Pacific Island nations were not suitable to the need of those diverse societies and were rather appropriate for societies where the state is neutral and liberal patterns of personal behavior prevail (Macdonald Cassels 2016: 36).

Goddard (2010a) observes that a "hybrid court system at the local level, supported by existing (and clearly workable) church resources and the newly emergent local women's organizations, presents itself as a potentially valuable alternative to previous attempts to maintain legal and customary forums as alternative justice-delivery resources" (Goddard 2010a:29). Evans et al. (2011) propose a comparative analysis of three systems of justice in Melanesian countries with state legal systems originally introduced by colonial governments. They observed that 'hybrid' forms have been developed to address disputes in accordance with customary norms. The authors also identify variety of limitations and strengths and conclude that the hybrid courts "provide a blueprint for accessible, quick, representative, and community-owned justice in Melanesia" (Evans et al. 2011: 35).

Dinnen (2018) flagged some criticisms of "hybridity" and draws attention to how the use of hybridity in both descriptive and prescriptive manner can hide major power relation discrepancies between local actors and other actors. For example, Dinnen (2018) underlines that:

> concerns have been expressed about how attempts to instrumentalise hybrid governance can be appropriated into broader neoliberal agendas and used to hollow out already 'weak' states, including by outsourcing public goods to poor communities themselves. Likewise, there has been concern about 'romanticising the local' and downplaying significant power differentials based on gender, age, ethnic or other divisions. All of which is to suggest that if the concept is used without sufficient attention to the relevant power dynamics and conflictual elements in specific contexts, it can ultimately serve to reproduce existing patterns of hierarchy, domination and relations of power. (Dinner 2018:4)

Dinner (2018) warns about the "descriptive" literature describing processes of hybridisation through the 'thick description' flowing from detailed ethnographic study while "prescriptive" literature opens the path for "intrusive and ill-conceived programs of social and institutional engineering, while others question whether hybridity can be deliberately harnessed to accomplish stated objectives and goals." (Dinner 2018:4)

Critics of hybridity like Dinnen have revealed that "hybridity" often lacks nuance when addressing power relations and the reality of what customary systems are in the Pacific. The variety of local actors and customary systems in the Pacific is not often reflected in the literature on hybridity. Most literature reflect on the dichotomy between two systems (customary, traditional vs. formal, modern system) that seem naturally at odds and lack nuanced descriptions. The hybrid system resulting from the "association", "articulation", "complementarity" (as defined by authors above) of both systems seems to be depicted in the literature as a third new system. This was also observed by Dinnen (2018) that describes "hybridity" as being criticised for:

> The paradoxical way in which a concept that seeks to overcome unhelpful binaries – global/local, modern/traditional, liberal/illiberal, state/non-state – often simply ends up reinscribing them. This is evident in 'the turn to the local' that has permeated much critical scholarship, with a strong focus on local actors and organisations and their mediation of international interventions. Critics point to the tendency to homogenise broad and ill-defined categories ('local' and 'international'), downplaying their internal diversity and the ways they overlap and intersect in practice.

Critics of the concept of Hybridity mainly focus on the fact that the concept is not appropriate to depict politics in the Pacific. Indeed, it is often argued that the term 'hybrid' was used originally in the bio-zoological sciences to describe the result of mixing different elements. However, the term is now commonly used in political and social sciences in discussions around politics, economics, identity and culture particularly in colonial and postcolonial literature. Postcolonial literature mainly used hybridity to examine interactions between the colonisers and the colonised with a particular emphasis on active resistance from the colonised. As explained by Dinnen (2018):

{…} interactions between different social, political, and institutional orders, hybridity is a notion that has long informed various fields of research and policy engagement. For example, the sub-field of legal pluralism focuses on the transformative effects of encounters between different socio-legal orders. This has included the interplay between 'customary' or 'traditional' forms of authority and those of introduced state-based orders in colonial and post-colonial settings.

In the context of our study, it is crucial to critically approach any concept that will not reflect on the diversity of the Pacific Islands and customary systems. Indeed, in an attempt to study planned relocation and customary lands that have both flexibility and limits to offer in the context of planned relocation, the concept of "hybridity" seems not nuanced enough. Authors such as Mallet (2010) observed that "Hybridity" as a concept presents some limitations, it would therefore be useful to observe "other alternative modes of governance which do not fit neatly into dominant state-centered models" (Mallet 2010: 82). Therefore, those limitations revealed by the concept of "hybridity" led us to observe the concept of "Legal pluralism" and governance mechanisms relevant to a critic of *"Hybridity"* including "plural legal systems" in the Pacific in the next sections below. We will observe and critically engage with scholarly work on pluralism and plural legal systems in the Pacific with an attempt to frame a theoretical framework that would be suitable to address our research subject.

Despite the weaknesses of hybridity pointed out by critics, there are a number of useful lessons we can draw from it which we will use to inform climate-induced relocation in this thesis:

(1)   The first lesson is that it is important to understand local communities and how local actors can make a difference in determining governance and social processes.

(2)   Secondly, it is important to understand the power dynamics between the two systems because this has potential to shape the relationship between them.

(3)   Thirdly, hybridity extends to various aspects of governance including the pluralism. In fact, pluralism can be said to be an extension of hybridity in its broader conception.

Because climate-induced migration involves complex legal issues dealing with land, property and infrastructure, it is important to examine the relationship between legal pluralism and hybridity here.

4.2   Hybridity and legal pluralism

Legal pluralism arises when different normative or legal ideas, principles or systems exist within and are applicable to a single setting or situation. As an analytical approach it draws attention to "the diversity of norms and other institutions that guide human behavior" (Rohe et. al 2019:95). The study by Rohe et al. (2019) reveals that partner organizations that engage in local marine management can play a vital role in bridging local and (sub-) national levels. Legal pluralism can have varied impacts on governance outcomes, depending on the nature of the relationship between the governance systems involved. Bavinck et al. (2014) developed a typology of such legal pluralist relationships. They distinguish four types, defined by the quality and intensity of the relations between the governance systems (Figure 25). Type 1, *indifference*, is characterized by a lack of operational overlap between governance systems (because national legal regulations are not implemented and so customary rules continue to operate). In Type 2, *competition*, relationships are strong but contending (for power to rule over the same situation). Type 3, *accommodation*, arises when governance systems have reciprocally adapted to each other but with little integration in terms of institutions or jurisdiction (e.g., when national policies provide for local stakeholder participation). In Type 4, *mutual support,* governance systems act in partnership, such as co-management arrangements. It should be noted that the four different types are not meant to be exclusive; elements of all types may coexist in a given setting as legal plural patterns demonstrate a high degree of variation.

Quality	Intensity	
	Weak relations	*Strong relations*
Contrary	Type 1: Indifference	Type 2: Competition
Affirmative	Type 3: Accommodation	Type 4: Mutual support

Figure 25: Typology of relations between legal systems (adapted from Bavinck and Gupta 2014:82).

Governance includes all of the processes, structures, rules and traditions that govern; governance processes may be undertaken by actors including a government, market, organization, or family (Bevir 2011), with particular reference to the multitude of actors operating in respect of land–climate interactions. Governance processes determine how people in societies make decisions (Patterson et al. 2017) and involve the interactions among formal and informal institutions through which people articulate their interests, exercise their legal rights, meet their legal obligations, and mediate their differences (Plummer and Baird 2013). These challenges include assessing, combining, and implementing policy instruments at different governance levels in a mutually reinforcing way, managing trade-offs while capitalizing on synergies and employing experimentalist approaches for improved and effective governance (FAO 2017). Forms of governance, combining the advantages of centralized governance (with coordination, stability, compliance) with those of more horizontal structures (that allow flexibility, autonomy for local decision-making, multi- stakeholder engagement, co-management) is required for effective mainstreaming of planned relocation in adaptation and climate change policies.

In this research, critically engaging with the static concept of hybridity and studying institutions of governance, levels, modes, and scale of governance, in a multi-level, polycentric fashion and through a paradigm which accommodates both local and state decision-making is important because of the multi-scale nature of climate change, mobility and Pacific governance systems. There are a number of aspects of legal pluralism which need elaboration here as a way of deepening our understanding of hybridity.

4.2.1 Multilevel governance

Different types of governance can be distinguished according to intended levels (e.g., local, regional, global), domains (national, international, transnational), modes (market, network, hierarchy), and scales (global regimes to local community groups) (Jordan et al.

2015b). Implementation of climate change adaptation has been challenged by institutional barriers, including multi-level governance and policy integration issues (Biesbroek et al. 2010). Sub-national governance efforts for climate policy, especially at the level of cities and communities, have become significant during the past decades (Castán Broto 2017; Floater et al. 2014; Albers et al. 2015; Archer et al. 2014). Therefore, in addressing local climate impacts, local governments and communities are key players. Advancing hybrid governance of climate change across all levels of government and relevant stakeholders is crucial to avoid policy gaps between local action plans and national/ sub-national policy frameworks (Corfee-Morlot et al. 2009).[5]

4.2.2 Polycentric governance

Polycentric governance considers the interaction between actors at different levels of governance (local, regional, national, and global) for a more nuanced understanding of the variation in diverse governance outcomes in the management of common-pool resources (such as forests) based on the needs and interests of citizens (Nagendra and Ostrom 2012). "Polycentric climate governance" system has emerged that incorporates bottom-up initiatives that can support and synergize with national efforts and international regimes (Ostrom 2010). Although it is clear that many more actors and networks are involved, the effectiveness of a more polycentric system remains unclear (Jordan et al. 2015a). Polycentric institutions self- organise, developing collective solutions to local problems as they arise (Koontz et al. 2015).

4.2.3 Informal and formal decision-making

Informal decision-making facilitated by open platforms can be used to address problems in land and resource management by allowing evolution and adaptation, and incorporation of local knowledge (Malogdos and Yujuico 2015a; Vandersypen et al. 2007). Formal centres of decision-making are those that follow fixed procedures (written down in statutes or moulded in an organisation backed by the legal system) and structures (Onibon et al. 1999). Informal centres of decision-making are those following customary norms and habits based on conventions (Onibon et al. 1999) where problems are ill-structured and complex (Waddock 2013). As depicted by Jones et al. (2014:221).

There are different ways to incorporate local knowledge, informal institutions and other contextual characteristics that capture non-deterministic elements, as well as social and cultural beliefs and systems more generally, into formal decision-making. Classic scientific methodologies now include participatory and interdisciplinary methods and approaches.

This broader range of approaches may capture informal and indigenous knowledge, improving the participation of indigenous peoples in decision-making processes, and thereby promote their rights to self-determination (Malogdos and Yujuico 2015). Informal institutions have contributed to sustainable resources management (common pool resources) through creating a suitable environment for decision-making. The role of informal institutions in decision-making can be particularly relevant for land-use decisions and practices in rural areas in the Global South and North (Huisheng 2015). Understanding informal institutions is crucial for adapting to climate change, advancing technological adaptation measures, achieving comprehensive disaster management and advancing collective decision-making (Karim and Thiel 2017). Furthermore, informal institutions are a crucial entry point in dealing with vulnerability of communities and exclusionary tendencies impacting on marginalised and vulnerable people (Mubaya and Mafongoya 2017). There are many examples when formal institutions might obstruct, change, and hinder informal institutions (Rahman et al. 2014; Helmke and Levitsky 2004; Bennett 2013; Osei-Tutu et al. 2014). Similarly, informal institutions can replace, undermine, and reinforce formal institutions (Grzymala-Busse 2010). In the absence of formal institutions, informal institutions can gain importance, requiring focus in relation to natural resources management and rights protection (Estrin and Prevezer 2011; Helmke and Levitsky 2004; Kangalawe et al. 2014; Sauerwald and Peng 2013; Zoogah et al. 2015).

Outcomes	Effective formal institutions	Ineffective formal institutions
Convergent	Complementary	Substitutive
Divergent	Accommodating	Competing

Source: Helmke and Levitsky (2004: 728)

Figure 26: Formal–informal institutional interaction could take different shapes such as: complementary, accommodating, competing, and substitutive (Helmke & Levitsky 2004:728)

Formal and informal governance structures are composed of these institutionalized rule systems that determine vulnerability as they influence power relations, risk perceptions and establish the context of risk reduction, adaptation and vulnerability are managed (Cardona 20121179). Governance institutions determine the management of a community's assets, the community members' relationships with one another, and with natural resources (Hurlbert and Diaz 20131180). Traditional or locally evolved institutions, backed by cultural norms, can contribute to resilience and adaptive capacity.

4.3   Plural legal systems in the Pacific

This section critically examines the issue of legal plurality in the Pacific and its relevance to this thesis. It addresses the plurality of legal systems in the Pacific through an analysis of tensions or synergies between law and custom with a particular emphasis on discussions around land which is relevant to our study. It explores these in the broader context of hybridity and legal plurality to explain those dynamics.

In 1984 Allardice observed that "custom continues to play its lively role in the Solomon Islands {…}" (Allardice 1984: 284) in her review the place of customary law in the legal system of Solomon Islands including aspects of land law is very important indeed. The barrister Vaai (1997) provides a historical survey of concepts underlying the theory of law and the anthropology of law and its application to Africa and the Pacific. In the context of the Pacific, Vaai underlines shifts in response to nationalism and decolonisation in the 1960s, increasing interest in customary law, and the emergence of legal pluralism. After providing a review of the development of constitutions in Papua New Guinea, Fiji, Solomon Islands, Tuvalu, Vanuatu, and Samoa, Vaai argues that the imposed law and new constitutions resulting from colonisation have 'effectively and permanently marginalised customary laws' (Vaai 1997:242).

Having customary law recognized and part of the legal system is a common agreement amongst all Pacific Nations. Indeed, as explained by (Kwa 2009:3):

> Traditional knowledge which is embodied in customary law and practices shall be part and parcel of the legal system of the country. Thus section 9, and Schedule 2.1, of the PNG Constitution; sections 49 and 74 of the Vanuatu Constitution; Article X of the Marshall Islands Constitution; sections 100 and 111 of the Samoa Constitution; section 76 and Schedule 3 of the Solomon Islands Constitution; section 422 of the Cook Islands Act 1915; the preamble of the Kiribati Constitution; Article V(2) of the Constitution of the Federated States of Micronesia7 and the preamble of the Tuvalu Constitution – all these adopt the traditions, cultures, and customs of the people as a guiding legal principle and also a source of law for these states"{…}. The Constitution, being the supreme law of most of the South Pacific countries, lays the foundation for the protection, maintenance and promotion of traditional knowledge, practices and innovations. This constitutional mandate has been translated into various national laws which entrench the position of custom. Examples include: the Village Fono Act 1990 and the Land and Titles Act 1981 of Samoa; the Laws of Tuvalu Act 1987 of Tuvalu; Laws of Kiribati Act 1989 of Kiribati which is based on the Customs Recognition Act 1969 of PNG; Custom and Adopted Act 1971 of Nauru and Tokelau Village Incorporation Regulations 1986 of Tokelau. (Kwa 2009:3-4)

Goddard (2010) uses the term "pluralism" to depict the diversity of local actors and advocate a hybrid court system at the local level. Allen (2007) discusses situations where leaders may be selected on kin group affiliation; in such case traditional authority may be more important, or have more legitimacy, than the legal-rational form of authority recognized by the formal process of the state system. Dinnen et al. (2010) refers to traditional structures represented by chiefs as having a legitimacy that state organizations have not been able to achieve. Goddard (2010:24) warns that ignoring these plural mechanisms would lead to "overlook some of the basic causes of disconnection between governmental institutions and local realities." At the same time, Timmer (2011: 407) observes that "Pacific states are hardly ready and poorly equipped to deal with legal

pluralism in the past and at present, civil society movements build increasingly powerful local, regional and transnational links for seeking alternatives to failures of the states." Timmer (2011) describes pluralism and the plurality of (traditional) normative systems juxtaposed to a (modern) state normative order "which generally shows limited flexibility in dealing with social and cultural varieties, putting current governments inevitably on par with colonial legacies that often evoke popular resentment" (Timmer 2011:406). Political tension and constitutional vulnerability generated by the dualism of imported forms of governance uneasily grafted upon traditional systems of authority" is at the centre of an analysis of political systems in the Pacific by Levine (2016). This shows that there is a wide disparity in political systems in the Pacific each facing their own challenges. In this book, Norton's chapter on Fiji explains that the tension resulted in military coups and indigenous domination of the army and its domination as a central political agent. Levine adds that in Fiji "{…} the continuing challenge for political leaders in Fiji has been to devise viable adaptations of western models of political democracy suited to local conditions." (Levine 2016:86). Steven Ratuva describes Tonga as an aid dependent monarchy lacking effective local government (Alley 2017).

In our review of plural systems, we have identified in a broad way that custom is a central and a prevailing form of law in the Pacific. We now look at some specific aspects of these next:

(i)   Customary law

Pulea et al. (1987) discusses "incorporation of customary into legal law", the way legal pluralism is addressed and the question is posed is of importance. On one hand, some authors argue that the custom should prevail as basis of common law with arguments around the recognition of customary law to be treated as a matter of law as "proof of law" and not only "proof of fact". Zorn et al. (2002a) address inherent difficulties for courts more accustomed to common and statutory law in 'finding' custom, and the consequent problem that many judges and lawyers take the view that customary law must be pleaded and proved as if it is not law but fact. The study explores the cases of Fiji, the Marshall Islands, Vanuatu, the Solomon Islands, Papua New Guinea, Tuvalu, Kiribati, Niue, and Tonga. Zorn et al. (2002a) observe particularly a variety of judicial approaches to finding custom as fact in general and as law in Nauru, Fiji, and the Solomon Islands. The analysis

is followed by an observation of books, treatises and other documents including elders, chiefs, and assessors. While acknowledging some recent shifts in anthropologists' orientations, Zorn et al. (2002a) suggest that "the best use of their testimony is in confirmation of the evidence of others such as elders and the more credible parties."

Pulea et al. (1987) discusses the incorporation of customary law into the legal system with a particular focus on the environment and underlines that

> …there are a number of examples found in Pacific countries where the question of customary law has come before the courts and the decisions made can form the basis of authoritative case law. What needs to be done however is to bring together court decisions on customary law from Pacific countries so that fundamental principles and rules can emerge not only for the guidance of the courts but also for administrators and technical officers and the community as a whole (Pulea et al. 1987: 13).

Legislative prescription of the recognition of custom, customary rights or the application of custom has also been observed by Kuembalagan (2014) as crucial. Indeed, the author's emphasis on this aspect by stating that:

> A short legal statement on the recognition of custom, customary rights or the applicability of custom as law or as a basis for certain decisions ensure further application and elaboration of the same in many PICs. In certain jurisdictions, it may be all the legal basis required and from which a whole range of implementation action or options will ensue. Such legal statements are often found in national Constitutions and principal legislation. (Kuembalagan 2014:48).

The Native Land Act of Fiji [26] mentions that: "any dispute arising for legal decisions in which the question of the tenure of land amongst native Fijians is relevant, all courts of law shall decide such disputes according to such regulations or native custom and usage which shall be ascertained as a matter of fact by the examination of witnesses capable of throwing light thereupon" (Pulea et al. 1987: 14). Customary law is usually unwritten and uncodified which is one of the main reasons why customary law is treated as questions of fact and not questions of law. Proof of custom which is most of the time used in cases

involving disputes revolving around succession to land rights is usually supported by evidence provided by witnesses such as elders, village chiefs or headmen.

4.3.1 Significance of traditional authority

Some authors, as we have seen, emphasize the need for custom to prevail because of the essential role customary chiefs play in settling disputes. Pulea et al. (1987) for instance insist on the importance of chiefs in claims over land resources explaining that;

> In some countries, Pacific Islanders' claims to these resources [Land and coastal resources], are either exclusive, primary, secondary or mainly rights of occupation or utilization depending on the customary system. Exclusive rights are said to be handed down from time immemorial through ancestral families, spirits or Gods. The myths, legends and history of the Pacific are rich with references to their exclusive rights to these resources. Rights to these resources are generally held by all members of the kin group and where system of chiefs or headmen exist the rights to the utilization of these resources are subject to their discretion. (Pulea et al. 1987:22).

Campbell (2002) studies land tenure and social and political relations based on the Rarotongan Land Court records. He provides a contextual analysis of the gradual growth of *ariki* (highest-chiefly) power during the colonial periods that allowed the hegemony of the chiefs to be framed and the political unity cemented. Allen et al. (2013) provide an empirical study reflecting on perspectives and field study from authors observing justice and dispute resolution in the Pacific from various disciplines including anthropology, geography, law, and sociology. Their study found that the *kastom* system is the most commonly used form of dispute settlement revealing ineffective in dealing land disputes. According to the authors, this associated with customary chiefs' involvement in power struggles and lack of institutional capacity to deal with logging disputation. The local population tend to prefer systems that are not state-based but at the same time a strong will to have better responses from the state. Often a challenge is that local-level governance hasbeen undermined by budget cuts related to centralization and the fact that contemporary governance innovations derive in part from the legacy of colonial institutions.

Angelo (1987) describes the political and legal systems in Tokelau and analyses the relationship between customary and formal criminal law and emphasizes the lack of legislative recognition of local methods of dispute resolution when it comes to land settlement disputes. Cretton (2005) observed that the 2000 coup in Fiji exacerbated opposition between customary and constitutional rights and heightened the colonial dichotomy between tradition and democracy.

Sigrah et al. (2004) studied the Banaban traditional system of law (Te Rii ni Banaba) governing settlement of disputes over land ownership, genealogy, and roles within society. After identifying issues related to land as a result of their exile to Rabi Island in Fiji after devastation of their original island due to phosphate mining, the authors suggest that the preservation of the traditional law and its implementation within introduced law are vital to social, political, and economic development. This enabled the population to set out their own village system and individual land holding which facilitated resettlement on Rabi. The chiefly system is central to Fijian way of life (Fong 1994). Indeed, in his comprehensive description of the Fijian traditional way of life, Ravuvu (1983) explains that:

> A Fijian chief is, most importantly, a member of a lineage in which he occupies a position of authority primarily through his relative seniority in terms of decent... In the Fijian culture, every member of the Vanua is not only identified with the chief, but is also the embodiment of the vanua (Ravuvu 1983:29).

The concept of *Vakaturanga* is another crucial aspect of the Fijian way of life. Ravuvu (1983: 28) describes it as a concept that "embodies respect and deference, compliance and humility, loyalty and honesty." Veitayaki (1998) has provided an overview of the traditional management practices and Fong (1994) published a detailed description of the Fijian social groupings and way of life in the context of CMT. (Kuembalagan 2014:16).

4.3.2 Relationship between custom and common law

Authors such as Aleck (1991) addressing issues arising between law and custom in the Pacific, argue that rather than recognition, what is required is that custom, "the fundamental jural values of the community", be the legitimate basis of the common law

and that the common law tradition is best regarded as "a system of customary law" (Aleck 1991:143). Aleck also studied the legal and anthropological views and relationship between the two disciplines by reconsidering the dichotomous relationships between traditional and modern, law and custom. Aleck argues that "the dynamic nature of law and custom and a constructive integration of the two can only be achieved in the light of the complementary insights of jurisprudential and ethnographic understanding" (Aleck 1993:107).

Along the same line, some authors emphasise the importance of preserving customary law practices as conflict-resolution measure for Fijian communities without compromising it by using fact finding methods of litigation central to formal law. Arno (1976), for instance, studies how the performance of *i soro* or *i bulubulu* operates as a conflict-management system while appearing to be no more than a formal outcome in disputes. *I soro*, he explains, is a ritual of reconciliation used throughout Fiji in which someone that did something wrong presents a ritual presenting the ritual object *tabua* (whale tooth) and *yagona* (kava), formally asking a confession of guilt, request for forgiveness and demand for the restoration of normal relations. Two villages were studied in Fiji where he examined how the ritual can lead to resolution without providing for fact-finding application of norms. Koch et al. (1977) also observed the Fijian *I soro* and argued that maintenance of close kin relationships is too important to be put at risk by resort to litigation when customary rules are broken.

Care (2002a) provides a criticism of the introduction of common law in the Pacific. She examines that the sources of common law, the conditions of application and relationship with other sources in twelve countries (Cook Islands, Fiji, Kiribati, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, and Vanuatu) and concludes that there is a noticeable failure to adapt common law to the complexities of regional governance because while expanding traditional dispute resolution is necessary, it is also essential to abandon the common law or, at least, restrict it to cases where it is inarguably applicable to local circumstances. Corrin Care (2006) also observes the difficulty "of locating customary penalty in the plural systems existing in the post-colonial era" (Corrin Care 2006:29). She suggests taking into account the cultural specificity of penalties and the need for sensitivity in their application and e also argues that it is essential to acknowledge the strength of the local systems and their diversity as a counter-balance to the uniformity

imposed by globalization. Care and al. (2001) ask the question of how to incorporate customary law in the legal system when custom seem to vary from one village to another by comparing legislation in Papua New Guinea's Underlying Law Act and the Solomon Islands' Customs Recognition Act before, during, and after the colonial period. The authors also attempted to understand why two parliaments have taken such different approaches to similar problems of pluralism. The principal difference between the two acts is that the Underlying Law Act places custom as law while the Customs Recognition Act restricts custom to proof as fact. Corrin (2011) underlined this issue in her study of challenges relating to the proof of customary law and the question of whether it should be treated as law or fact. She argues for customary law to be treated as a matter of law.

Farran (1997) acknowledge the issue and noted that there were attempts by some South Pacific countries to give custom the force of law. Farran (2010) observed (using Vanuatu as case study) that narratives of land, and particularly those in support of land claims, are significant elements in shaping and understanding the identity of Indigenous people and relationships to land. She examines potential conflict between customary and constitutional rights with three main observations: The double institutionalization of custom as extra-legal; strengthening or changing custom as a result of codification by the constitution; denial in practice as a result of lack of sanction by an external state force. In the context of land issues, Farran (1997) describes and analyses a series of court cases engaging land ownership and conflicts related to land all over the Pacific region[6] with the conclusion 'that customary rights that survive as enforceable rights will be modified in the process' (Farran 1997:120). The reliance on oral evidence which characterizes customary law is also of concern in contexts where there are social changes and increased migration. For instance, (Pulea et al.1987:15) states:

> There are areas of customary law relating to land and marine tenure which require recognition in order to give protection to the traditional practices of the local inhabitants. Conflict between government agencies and local communities have been known in number of the Pacific Islands particularly in the exercising of traditional rights and 'government' rights relating to the resources in development projects.

Corrin (2008b) observes the development of legal systems in the Pacific region as well as the significance of land, legal pluralism, and the terminology of customary land tenure. She particularly focusses on Samoa and Solomon Islands when observing both formal and customary provisions related to land tenure. Of particular interest is the study of representation of customary concepts in common-law terms. Results of her study reveals that there are constitutional protections for customary land and law but the common law has significantly modified customary concepts. These tensions between customary and common law is likely to increase in response to the challenges of changing lifestyles in the region. In her study of land disputes in Samoa, Corrin (2008c) summarizes the legal and land-tenure systems in Samoa and issues relating to the resolution of land disputes and the role of matai (chiefs) within the family in negotiation, mediation, and arbitration procedures. Corrin outlines some recent innovations in the development of customary land, and argues for maintaining specialist institutions and recognising customary ones, recognising challenges to tradition, and providing alternatives for dispute resolution.

Some authors emphasise more on the essential primacy of common law that should "codify" customary regime. Including argument around formal law protecting communities against abuse of human rights. This specific point will also be discussed later in our review in the next section on cultural relativism and international human rights. Proponent of the primacy of formal law, authors such as Angelo (2010) suggests that the law in Pacific Island countries could be strengthened by "engaging in its vernacularizing (as in the creation of the law of England) and engaging with custom while at the same time 'extending English language education and inculcating an understanding of the nature of the law and its processes" (Angelo 2010:88). Corrin (2008a), also admitted that the role of the formal court as court of record has allowed avoiding difficulties experienced by other customary courts. Therefore, for her, there will be increasing use of formal courts in response to disputes on land. Her study investigated land tenure and dispute resolution in the context of contemporary legal pluralism. For that purpose, she examined the existing system of land tenure in Samoa and focusses on issues arising about the use and alienation of customary land. She provides a comprehensive survey of statutory and informal land dispute resolution status including the Land and Titles Court and the village *fono* (councils of chiefs). The study provides an overview of practices and forms of evidence in determining the status of land and issues related to

individual ownership of land. Corrin (2008a) reveals that there are debates over definitions of custom and its relationship with common law, as well as on the role of *fono* and court in dealing with conflicts between customary law and human rights.

Arguments criticizing customary law as formal law is depicted as system of law protecting against human rights abuses emerging from the application of the custom are found in the literature notably through the work of Goddard (2005). He provides a critical analysis of the idea that custom best protects human rights. He argues provides the example of the discrimination of women in the name of 'custom' in male-dominated village courts in Port Moresby. He argues that the rhetoric is unsupported by evidence and that it ignores the fact that grassroots women often do not have access to justice. In terms of legal pluralism, he suggests that taking a perspective that considers formal legalism as a protection against human rights abuse is something women will find increasingly useful.

Bothmann (2010) also reviews the feminist legal scholarship and using a postmodern approach critiques the body of knowledge of custom gathered by white male anthropologists. She suggests that it is possible to deconstruct the notion of custom without threatening its usefulness or denying its importance as a marker of identity. Bothmann observes custom in the Pacific with a focus on Vanuatu and notes the absence of women's voices and she identifies

> …five levels of 'the masculinist rhetoric of nostalgia' used to foster men's power. They are the use of anthropological inputs annihilating women's business; employment of outsiders' patriarchal misinterpretations of actual relations between men and women; denial of any vehicle for the recognition of women's traditions; modification of custom by men's reinventions in pursuit of greater control over women; and a power paradigm so patriarchal that men become the sole arbiters of custom. (Bothmann 2010:155).

4.3.3   The nuanced approach

Many authors argue for "interaction" between the two systems using more nuanced concepts and terminologies including "synergies", "tensions", "complementarity", "integration" etc. For instance, Brown (1971), concerned with "the integration of custom

with appropriate rules of Western origin' (Brown 1971:246), observed law in Papua-New Guinea in the 60s and 70s and proposed a 'legal engineering' that proposes "{…} to leave native conciliation procedures' alone where they seem to be working; to make available judicial bodies and procedures more compatible with custom than the *wet kot* (white court) where conciliation or mediation do not work; and in towns and other centers to establish courts equipped to deal with the faster pace of life while sorting out 'the frightening complexities of custom conflicts' (Brown 1971:249). In her study of customary law, formal legal systems and the custody of children in Solomon Islands and Vanuatu, Brown (1997) argues that there is failure to address, confront, and analyse the relationships among different sources of law in a legally pluralistic system. Brown (1999) also asks if "regional jurisdictions can develop a distinctive Indigenous common law and jurisprudence, if customary law can be adapted to a technological and globalized world, if it is flexible enough to meet modern norms of human rights and particularly gender equity, and whether its survival depends on its isolation if it cannot adjust to interdependent internationalism." His conclusions are that "there is no impediment to synthesizing customary and imported common law; over all, the prognosis is mixed, with acceptance and survival depending on 'well-funded, meticulous and qualified research."

Corrin (2009) seems to have evolved her position from being advocate of the primacy of customary practices to a more nuanced approach where she contests the binary oppositions between customary (traditional) and state (modern) law and argues for a more complex interplay between them and a new category that she qualifies as 'blending'. Corrin critically engages with the concept of "legal pluralism" arguing it creates tensions and uncertainties when implemented. She underlines the 'one dimensional, hierarchical approach to legal pluralism' and the lack of progress of South Pacific customary law and jurisprudence since independence (Corrin 2009:45).

In the same way, Forsyth (2004) considers that Melanesian jurisprudence is a failure mainly because of the lack of progress in the integration of customary law and the official legal system, notably, in Vanuatu. In her study of challenges associated with incorporating customary norms into the Melanesian criminal law, Forsyth (2006) observes that the issue of the relationship between customary and state legal systems cannot be resolved by the simple transfer of norms from one to the other. However, an effort should be made from the state system to accommodate customary norms by minor

legislative but major mind-set changes. Forsyth (2009) proposes an investigation of the problems and possibilities of plural legal orders in Vanuatu after collecting empirical data based on five years of field study in the country. She discusses problems in the relationship between the two, develops a typology of possible relationships, and uses that to propose a new methodology of doing legal pluralism based on the idea that strengthening the state system without taking account of *kastom* and how it would undermine conflict management in general, and legitimation of the state system would be enhanced by a supportive relationship between the two systems. For Forsyth, this is achievable given some changes within and adaptations between them.

McLachlan (1988) provided a comparative analysis of state recognition of indigenous customary law in 14 Commonwealth South Pacific jurisdictions; Australia, Cook Islands, Fiji, Kiribati, Nauru, Niue, New Zealand, Papua New Guinea, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Western Samoa. His study explores legal pluralism, custom as a source of underlying law, human rights and cultural relativism, custom as process in disputes, and custom as title in land issues. Pulea et al. (1987: 17) points out that, in practice,

> …customary law is not applied if it conflicts with any Act of Parliament or it is repugnant to natural justice, equity, and good conscience. {…} Perhaps some of the gaps between customary laws and the existing legal systems are unbridgeable particularly if the task is to produce an integrated system of law based on national goals, judicial decisions, precedents and unwritten customary rules. But equally, custom still regulated many people's lives in the Pacific even if it does not affect the formal legal system which may be largely irrelevant and ignored.

Mc Lachan (1988) introduced the concept of "co-operative pluralism" based on the observation that custom is modifying its ideological role based on the realities of recognition while incorporation of custom into state law takes place with recognition by adjustments to state law. Guo (2011) also develops the concept of "legalscape" as a 'potential way to understand the entanglement of law and culture in contemporary Oceania' (Guo 2011:245). He observes the ways in which Malaita's population in the Solomon Islands incorporate legal ideas and language in their land disputes. Social

relations and the way it is represented and recited have changed since the legalization of land after independence.

A more nuanced approach to legal pluralism (which wasn't found as explicitly in the literature explored on hybridity) also includes arguments of authors addressing questions raised on the diversity of customary approaches present in the Pacific. For instance, Pulea et al. (1987) explains that customary law is undergoing constant changes. They flagged that the use of "current customary usage" in relation to land in Solomon Islands gives a broad spectrum of interpretation of the custom currently used. Another issue relates to the diversity of customary approaches and the wide range of ethnic groups revolving around different indigenous systems of customs (particularly in countries such as Vanuatu, Solomon Islands and Papua-New-Guinea). Therefore, the recording of customary law and practices is far from being homogenous; what and whose customary law and practices should be recorded and applied? For instance, the Fijian society is very diverse, there is a large Indian immigrant population, expatriates, religious minorities and indigenous native population. These issues are flagged by asking whether in such cases:

> …would the recording of customary law and practices be selected from the more dominant culture, the indigenous culture, or both? There are a number of examples in the legal systems in the Pacific where there are separate laws as well as separate courts for 'natives' and separate laws and courts for 'Europeans and others" Pulea et al. (1987:15).

This argument is essential and also relates to the discussion on the diversity of the PICTs seen in sections above. Customary systems and customary land tenure, of interest in our study, is far from being a unified monolith bloc of norms. This was reflected way back in 1975 by Crocombe who described diversity as follows:

> The very diverse tenure systems in the Pacific have several features in common. They were devised for subsistence agriculture, in situations where people produced almost all their own food. About one-quarter of an acre of land per person was needed under crop at any time, although this varied with the crop and the soil. Because of high temperatures, heavy rainfall and leaching of soil, the land was left to fallow for some years after cropping, so one to four acres of agricultural land per head, or up to twenty acres per

family, was needed. In addition, land was needed for hunting, foraging and other purposes. Rights to land were in all cases vested in groups. The groups varied in composition, and there were rights held by individuals, extended families, lineages, clans, tribes and so on. That is, in any one piece of land there was a hierarchy of rights at several levels. The sale of land was traditionally unknown in most of the Pacific Islands, and is still forbidden by law in many of them. The transfer of land in the customary systems was mainly by inheritance from parents" (Crocombe 1975:30).

Worliczek (2013) provides an anthropological study observing common threads and variations in customary lands in the Pacific through four lenses: "the intergenerational transfer of land rights, the distribution of land plots (geographically and between families), the extent of power exercised by customary authorities and the different types of ownership or usufruct." The study shows that guiding principles (access to land at the interior of a respective island, strength of land rights on a certain plot, infrastructure issues, concepts of mobility, importance of primary land ownership, importance of primogeniture, potential inter-island access) are shared to different degrees across the islands" Worliczek (2013, 2020:1).

4.3.4   Application and challenges of hybrid systems

Another challenge relates to the use of appropriate terminologies in customary law and practice. On one hand, terms such as ownership rights, right of disposal, right of alienation, may have various interpretations from one customary system to another. On another hand, inaccuracies can occur when translating in western language terminologies present in customary law. Indeed, as Pulea et al. (1987:16) observed; "The slow development of a body of customary 'legal' terminologies carries with it the risk of obscuring the Pacific island sources or overlooking them altogether with the continued use of western legal terms."

Finally, another obstacle for implementing legal pluralism in the Pacific is that a large number of new laws cannot be based on customary law as custom is not relevant to all sections of law. In relation to this, (Pulea et al. 1987: 17) provides this argument: "For example, claims made to incorporate and base new law on the traditional rules and

concepts such as the customary ownership and rights to marine, land and coastal resources, or the incorporation of the notions of conservation and management of the resources, in practice, legal development is still largely influenced by the laws of England, Australia, New Zealand or elsewhere" Therefore, a major difficulty in incorporating customary law into legal systems is that customary law is far from being static and is much more dynamic than formal legal systems as explained by Pulea et al. (1987):

> The advantage of non-codification is that it is flexible without becoming frozen and out of date on the law books. On the other hand, for the ease of modern administration, written legislation in such areas as land and titles has become a necessity, to protect such customs as, traditional fishing rights, clan membership etc. To codify customary laws could be advantageous for the branches of law that require certainty, but whether the advantages which codification brings is out-weighted by its inflexibility and rigidity is arguable as such laws can be altered with comparative ease by legislation (Pulea et al. 1987: 17).

4.3.5   Legal pluralism, hybridity and the environment

The literature on legal pluralism as a form of hybridity applied to the context of environment and livelihoods provide some interesting insights to address the questions raised when undertaking a nuanced approach to the use of both the custom and formal governance in the Pacific. There has been much discussion of community-based management of fisheries in the Pacific Island Countries (PICTs) in part because customary marine tenure (CMT) is well-documented in most countries of the Pacific. This is also of interest for the purpose of this thesis as it would allow us to observe legal pluralism in the context of environment and livelihoods which is at the core of the thesis subject.

Kwa (2009:4) insists on the important amount of work that has been done in relation to the environment and natural resources management and the promotion of sustainable use though the use of custom and traditional practices and innovations. Kuemlangan (2004) reviews legal aspects of community-based fisheries management (CBFM) and the role of legislation in enhancing CBFM and customary marine tenure in the Pacific based on field

study in Cook Islands, Fiji, Palau, Papua New Guinea, Solomon Islands and Vanuatu. In his study, Kuemlangan argues that only little efforts have been made in the use of CMT-based community fisheries management in the PICTs. For him, traditional management practices should play a pivotal role in fisheries management in the Pacific region. Further legislative action can enhance CMT use in community fisheries management. The legal environment within which community-based fisheries management (CBFM) will function should be examined to determine whether it supports or will need necessary enhancement to support the implementation of CBFM. The question of legal pluralism is raised here again and the author approaches it by looking at the legislation of the State and see whether it needs any amendments to support or include CBFM norms. For this purpose, the authors suggest:

> {…} to ensure that enabling legislation for CBFM consider the following issues: security, exclusivity and permanence of rights[7] vested; flexibility of its provisions so as to allow states to exercise choices that reflect their unique needs, conditions and aspirations for CBFM; and the way CBFM harmonizes with the overall fisheries management legal framework (Kuemlangan 2004:1)

The collective property regime may involve the communal management of resources where a community collectively enjoys the rights to access and extract resources. The institutionalization of a collective property rights regime such as in community-based fisheries management in any jurisdiction raises legal issues that should be addressed (Kuemlangan and Teigene 2003). Veitiyaki et al. (2003) warn that the current CMBT mechanisms are not adequate for effective community fisheries management in Fiji. Kuemlangan suggests that "CBFM policies are elaborated into its fisheries legislative framework in Fiji based on lessons found in the broad body of literature on CBFM and related projects. {…} Fiji can build on the clear fishing rights of indigenous Fijians and the limited but valuable interaction between traditional leadership and fishing access (licensing) system and elaborate its CBFM policies into its fisheries legislative framework." (Kuemlangan 2004:48).

 Hviding and Baines' (1994) provide a comprehensive study of traditional fisheries management considered in relation to a range of social and environmental matters using

Marovo Lagoon, Solomon Islands as case study. The study describes traditional system for management of land and sea resources in a Pacific Islands society and observes how a system of customary marine tenure operates under changing social, political, economic and ecological circumstances caused by the development pressures. This study is key in illustrating "{…} how people's participation in all stages of formulation and implementation is a prerequisite of locally-appropriate sustainable development. Fisheries and marine resource development are a particularly striking case, where local people organized around communally-held resource assemblages insist on an integrated approach that also involves activities and contexts not directly related to fisheries" (Hviding and Baines 1994:36). The Marovovo case study reflects on a fisheries project launched in 1987 in Marovo by expatriate leaders of the SDA church. This case study shows that traditional leadership in such projects is crucial and that the leadership of external stakeholders

> {…} may have been ecologically justified it was quite unacceptable in sociopolitical terms. Had management of fish stocks been assumed by project personnel this would have interpreted as undermining the customary rights of butubutu. New sets of CMT regulations adapted to the new circumstances of intensified commercial fishing by villagers were prepared by "butubutu leaders (Hviding and Baines 1994:32).

The Marovovo approach reveals a case of resources management where a community exhibits a refusal to give up autonomous decision-making power in resource management by ensuring that initiatives related to their "estate" (that includes Marine and Land resources) are closely adapted to local needs and way of life. Hyiding and Baines provide an empirical study embracing a complex variety of issues involving land and sea resources, showing that traditional political mechanisms and environmental knowledge form a sufficient basis for reaching informed decisions if ownership of the process remains in the hand of the main stakeholder: the community.

The various standpoints and the nuanced approached illustrated above shows again the complexity of reorganizing governance and law around the custom and formal mechanisms; some aspects need to remain in both systems while others need to be adjusted. There are various dynamics, synergies and tensions at play and the lesson is that

simplistic hybrid political order should be used with caution when referring to political interplays in the Pacific, particularly when addressing planned relocation that involves land access and acquisition through traditional methods of negotiation and conflict management. Review of the literature on community-based fisheries management (CBFM) and the role of legislation in enhancing CBFM and customary marine tenure in the Pacific provide some interesting insights to respond to challenges addressed by authors addressing custom and formal governance through a nuanced approach. These include for instance, ensuring that enabling legislation for CBFM consider security, exclusivity, permanence of rights vested and flexibility of its provisions as central. This would allow states to exercise choices that reflect the needs of the community conditions the way CBFM harmonizes with the overall fisheries management legal framework (Kuemlangan 2004:1). Another interesting set of suggestions to "solve" issues relating to the incorporation of CBFM policies into its fisheries legislative framework was proposed by Hviding and Baines (1994) arguing that this incorporation proved to be successfully managed through ownership of the process, autonomous decision-making and participation of the community in all stages of formulation and implementation of resource management projects.

4.4   Conclusion: Hybridity and climate-induced planned relocation in the Pacific

Is the concept of hybridity suitable to address interactions between state and customary-based governance of climate-induced planned relocation in the Pacific? We have explored the concept of legal pluralism as an aspect of hybridity. Legal pluralism can have varied impacts on governance outcomes, depending on the nature of the relationship between the governance systems involved. We have observed Bavinck et al. (2014) typology on such legal pluralist relationships that has been explored to critically discuss the hybrid approach to governance and its suitability to address the governance of planned relocation as adaptation strategy to climate change in the Pacific. Our conceptual analysis suggests that hybridity can be refined and adjusted to analyze the dynamic interactions between state and traditional governance in the Pacific While it is a static concept it can be reframed to capture the interaction between state and community governance to capture the complex dynamics including tensions, challenges and synergies.

An approach within the broader hybridity discourse which I will be focusing on is pluralism because of the way it provides for a more nuanced approach to address interactions between customary and state-based systems in the Pacific. In the context of relocation, customary systems offer flexibility and reflect what is best suited to deal with land acquisition in the Pacific today. However, it can also be problematic when, for instance, villagers that had been absent from their land villages of origin for a considerable period of time lose their rights to land that had been claimed by other members of the kin group. This is likely to create tensions between current and old members of the clan (Kwaiga 2009), this is, for example, where applying formal law could be useful. Therefore, legal pluralism provides a broader scope to address the dynamic relationship between customary practices and formal law in the Pacific. Indeed, many authors on pluralism agree that the relationship between customary and formal norms are dynamic and in constant evolution. This allows us to critically engage with the concept of hybridity in a dynamic way.

In our review of plural legal systems in the Pacific, we have identified three main themes and debates ongoing in the literature.

Firstly, authors considering legal pluralism through the scope of custom as central and prevailing form of law. Arguments revolve around the need to go beyond "recognition" of customary systems (particularly applied to the context of land disputes) but rather ensuring custom becomes the legitimate basis of the common law and that the common law tradition is best regarded as 'a system of customary law'. It is also argued in the literature that this can't be done without complementary insights of jurisprudential and ethnographic understanding. The role of customary chiefs in land disputes resolution is often depicted as central in this literature with strong arguments on the need for the custom to prevail in order to allow customary chiefs to play their essential role in land dispute settlement. Custom is also depicted by some as essential to acknowledge the strength of the local systems and their diversity as a counter-balance to the uniformity imposed by globalization. Debates also show proof of customary law and the question of whether it should be treated as law or fact. Some authors argue that it is essential for customary law to be treated as a matter of law (see for example Farran 1997, Aleck 1991, Corrin 2011, Corrin 2008).

Secondly, various arguments tend to emphasise the essential primacy of common law that should "codify" customary regimes with a recurrent argument being formal law protecting communities against abuse of human rights. Arguments criticizing formal law is depicted as a system of law which also protects people against human rights abuses. Arguments here insist on outsiders' patriarchal misinterpretations of actual relations between men and women in the custom (see for example Goddard 2005, Bothmann 2010).

Thirdly, the more nuanced approach includes using norms from the custom where it works best and formal law where it is more relevant. It also contests the binary oppositions between customary (traditional) and state (modern) law. The nuanced approach is framed around terms such as "synergies", "tensions", "complementarity", "integration", "legal engineering", "legalscape", "co-operative pluralism" including the "complex interplay between the custom and the law" resulting in a new "blending", "synthesizing" customary and imported common law (see for example Mc Lachan 1988, Guo 2011, Corrin 2009, Forsyth 2006, Forsyth 2009, Brown 1999).

However, there are some challenges in relation to legal pluralism.

Firstly, arguments of authors addressing questions rose on the diversity of customary approaches involving different ethnic groups associated with various indigenous systems of customs present in the Pacific. This literature also acknowledges that customary law is undergoing constant changes. This is particularly the case for the current customary usage in relation to land that is broadly interpreted in different ways all through the Pacific. Therefore, the recording of customary law and practices is far from being homogenous and a very important challenge has been identified in the literature on what and whose customary law and practices should be recorded and applied? In the context of our study, it is crucial to critically approach any concept that will not reflect on the diversity of the Pacific Islands and customary systems. Indeed, in an attempt to study planned relocation and customary lands that have both flexibility and limits to offer in the context of planned relocation, the concept of "hybridity" seems inappropriate and not nuanced enough. Indeed, authors such as Worliczek (2013) provided an anthropological study observing common threads and variations in customary lands in the Pacific showing that access to land, strength of land rights, infrastructure issues, importance of primary land ownership, importance of primogeniture, potential inter-island access are shared to different degrees

across the islands" Worliczek (2013, 2020:1). This has implications for mobility outcomes in the context of climate change which is at the centre of our study. Indeed, an observation of parallels, differences, advantages and disadvantages of the different systems is crucial to understand implications for mobility as result of climate change. Worliczek (2020) provide such an analysis but the analysis doesn't reflect on planned relocation as distinct category of human mobility resulting from climate change. The term "Potential Climate Change-Induced Migration" is used without providing an in-depth analysis of the type of mobility observed in the study. Indeed, as seen above (section on definitions and terminology), it is crucial to understand if we are referring to displacement, migration or planned relocation in the context of climate change. Worliczek (2020) provides an interesting study of the nuanced approach needed when addressing customary system in the context of climate-mobility in the Pacific but lacks nuances in using "Migration" as a uniform category to address mobility in the context of climate change. We will attempt to address this gap and contribute to the literature by providing a more comprehensive review of planned relocation as a category of human mobility resulting from climate change impacts while addressing the role of customary governance in the process.

Another challenge relates to the use of appropriate terminologies in customary law and practices. On one hand, terms such as land ownership rights, right of disposal, right of alienation, may have various interpretations from one customary system to another. On another hand, inaccuracies can occur when translating in western language terminologies present in customary law.

Finally, another obstacle for implementing legal pluralism in the Pacific is that a large number of new laws cannot be based on customary law as custom is not relevant to all sections of law; This also refers to debates presented above as for how to integrate customary law in formal law as a matter of fact or a matter of law.

The literature on legal pluralism applied to the context of environment and livelihoods provided some interesting insights to address those questions raised when undertaking a nuanced approach to question the use of both the custom and formal governance in the Pacific (see for example Pulea et al. 1987, Kwa 2009:4, Kuemlangan 2004, Kuemlangan et al. 2003, Veitiyaki et al. 2003, Hviding and Baines 1994). These included the need to

preserve ownership of the process at all stages by the community and observing security, exclusivity, permanence of rights and flexibility as main principles while integrating both frameworks together. The thesis will hopefully contribute further to this literature by adding another layer of analysis and identifying some lessons on the role of the custom in the context of planned relocation induced by climate change in the Pacific, using Fiji as case study.

A particular emphasis will therefore aim to identify the interactions including tensions and synergies and contribute to the existing literature while providing some conclusions on hhow can planned relocation be conceptualized as an adaptation strategy to climate change.by using pluralism as an aspect of hybridity.

CHAPTER 5
Methodology

5.1   Introduction

This chapter will discuss the various approaches used in the study. This consist of the literature survey and analysis, fieldwork research involving community visits, interviews and discussions using the talanoa method and analysis of the information gathered and other relevant conceptual aspects relating to qualitative study.   The research used community observations and policy analysis that was used to approach relocation as both a social and policy experiment analyzed through the scope of both social and policy theory. This was essential to critically engage with the concept of "Hybridity" and attempt to answer our main research question: "How can planned relocation be conceptualized as an adaptation strategy to climate change using Fiji as case study?"

5.2   Literature search and analysis

The review process undertaken was based on a cross-disciplinary approach involving a systematic search of literature with specifically relevant keywords (Figure 27) in key academic journals and book chapters from various academic disciplines including geography, social and political sciences and economy. Figure 28 provides an overview of the criteria used for the literature review. Databases on grey literature have also been assessed including policy-oriented reports produced by international organizations, think thanks and NGOs. Furthermore, the review includes country-specific searches within the Pacific Region.

Climate-related Mobility driver Land	Type of Human Mobility	Location
Slow-onset	Human Mobility	Pacific Region
Rapid-onset	Migration	Small Islands Developing States Pacific
Flooding	Displacement	Pacific Region
Typhoons, Cyclones	Relocation	All Pacific Island Countries
Sea Level Rise	Resettlement	Fiji
	+Internal/International	
	+Temporary/Permanent	

Figure 27: Keywords used for systematic search

Criteria of evaluation of literature: The cross-disciplinary thematic approach*							
Date	Time Scale	Spatial Scale	Empirical (Yes/No)	Type of publication	Field of study/Discipline	Type of Human Mobility/Theme	Main Results
Between 1994-2017	Historical (H)	Local (L)	(Y)* Qualitative, Quantitative or Mixed Methods	Journal Article	Demography	Migration	+Associated trend(s) in literature
	Recent Past (P)	National (N)	(N) Policy discussion, Theoretical discussion, Framework development or Literature review	Book Chapter	Economics	Displacement	+Associated area of controversy in literature
	Present/ Ongoing (O)	Regional (R) (including inter and intra-regional)		Grey Literature	Environmental Science	Relocation	
	Future (F)	International (I)			Geography	+Internal/International	
					Law	+Temporary/Permanent	
					Political Sciences		
					Social		

Figure 28: Criteria used for the evaluation of literature

Resources were found using an online research on the basis of keywords such as: "relocation" "Land management" "Resettlement" "Pacific Islands State". Papers were selected from various academic disciplines including geography, social and political sciences, and anthropology. Bibliographies from the selected papers have been a useful tool to deepen the research.

The time frame for the search includes scholarly work from 1977 to 2020. Material identified for the review was selected within both English and French literature. The selection process was based on the following criteria:

(i)   Filling the gap concerning literature on environmental migration, displacement and planned relocation in the Pacific region specifically tied to slow and rapid-onset environmental changes with a particular focus on customary land ownership.

(ii)   Addressing the gap in scholarly work on 'integrated', 'syncretic' and 'plural' legal systems focusing on the environment and livelihoods. Critically engaging with Pacific regional scholarship on 'hybrid' approaches to legal issues as well as a more systematic focus on scholarship and policy analysis on Fiji and clearly articulates how this research thesis adds to this scholarly knowledge. Therefore, part of the literature review has a specific focus on Fiji (our main case study).

5.3   Field study

5.3.1   Ethics

Ethical procedures under the guidelines of the University of Canterbury were followed. I prepared an application for approval by the Human Ethics Committee (HEC) of the University of Canterbury prior to undertaking my field study in Fiji. I have received approval from the HEC on 06 May 2016.

Prior to each interview, interviewees were made aware of the purpose of the research. Discussing the research aims, data collection, expectations, confidentiality, outputs and opportunities for feedback, prior to seeking participants' informed consent was essential[40]. In the Pacific a written consent is not a practice, building of trust with communities is crucial, how I engaged with communities was therefore critical as it was key to engage in trust-based relationships. Therefore, I obtained consent for carrying the study from customary chiefs after having been introduced to the communities and having presented in detail the purpose of my visit. The local Fijian interpreter and cultural expert were present to translate and explain all relevant information about the research to participants. I made sure to inform the communities that I will be sending them at the earliest my thesis's results as well as the copy of any published article including a study of their village which I did at the occasion of the publication of the book chapter: "Social and cultural dimensions of environment-related mobility and planned relocations in the South Pacific" (Gharbaoui 2018).As mentioned in the ethic form, the present study is a

low-risk research. "*The research is a negligible risk research with no foreseeable risk of harm or discomfort. The research involves the use of non-identifiable data. Participants will not be labelled with individual identifiers (the person's identity will remain unknown) and no specific individual can be identified*." (HEC 2016). Therefore, each interviewee was given the option of being anonymously identified in the research or identified by name.

For interviews, a few participants have requested to remain anonymous while others have provided their name and were even happy to be photographed for the purpose of the research. Some participants, especially the customary chief of Matawalu village, requested their photos to appear in the research for "people to realise how bad the situation is and how the world should react quickly" (*Josaia Rakoto,* September 2017). On the contrary, Tukuraki villagers were more reluctant to provide their identity. It is crucial to acknowledge that Tukuraki village has had many visitors in recent years due to its exposure to media, particularly during and after the Conference of the Parties, COP23 to the United Nations Framework Convention on Climate Change (UNFCCC) as Fiji was hosting this event in Bonn, German. This level of exposure might have made Tukuraki villagers reluctant to provide their identity. Matawalu village has not been exposed as much and at the time of my field study they had received no visits related to the planned relocation of their village. Some interviewees from political institutions[41] in Fiji requested to not be cited by name in this research. It was particularly the case at Ministerial level at Ministry of Climate change and Ministry of Land where some interviewees preferred their name and position within the Ministry not to be mentioned.

The following principles have been followed all through the field study:

a) Respect of legislation around research and cultural protocol in Fiji: With the help of a guide and cultural advisor, I have been using Fijian traditional protocol to ask for permission to visit communities and get clearance. I have also followed a traditional Fijian presentation to introduce myself;

b) I made sure that any of my participants did not get harmed in any way whatsoever;

c)   I have tried to be fair in how I dealt with the people by paying for expenses which I incur rather than burdening them unnecessarily;

d)   I have tried to be culturally sensitive by observing their cultural ways such as respect;

e)   I have avoided any activity or behavior which is exploitative or manipulative or construed as such;

f)   I have ensured that interviews and any requests were based on informed, free and prior consent.

Back from the field and in accordance with the ethics procedures of the University of Canterbury, the field data has been electronically stored in a password protected file on a server managed by the University of Canterbury and accessible only by the researcher.

5.4   Case studies

5.4.1   Environmental impact

The first criterion for selection of sites was the type of environmental events, in an effort to explore analogues of forecasted outcomes of climate change, namely: flooding, coastal erosion, sea level rise, and tropical cyclones. Sites were selected according to the following criteria: Each site was affected by at least one rapid-onset environmental hazard (flood, storms, hurricane) attributed to climate change or slow-onset environmental change (sea level rise, saltwater intrusion, land degradation). Fiji Island will be drastically affected by sea-level rise in the coming decades and relocation is already taking place on that basis. The choice of Fiji is also based on the facilitated access to affected communities all relatively accessible despite the environmental impacts. Finding a diversity of environmental hazards among case studies was part of the criteria for site selection with the aim to comprehensively address the diversity of environmental events causing relocation to take place as adaptation strategy to climate change. There were no urban spaces entering the scope of this study available for selection and smaller villages in rural areas were mainly selected for that reason.

5.4.2   Migration patterns

The Pacific region is already dealing with population flows associated with migration, displacement or relocation as a result of climate change. Fiji Islands presents the most important track of environmental relocation in the Pacific that is also well documented. The sites selected for the semi-structured interviews at community level were spread out across various location in Fiji and included villages at different stages of the relocation process as well as sites affected by climate change at different degrees. Fieldwork was based on the observation of examples of climate-induced community relocation that recently took place in Fiji and some that are either ongoing or will take place in the future.

5.4.3   Customary land tenure

Fiji Islands was also selected because customary land tenure makes up 84 % of the total land area in Fiji, ideal to study the relocation process and the role customary land tenure holds in it. The focus was on cases involving community relocation within national boundaries, firstly, because it is the type of movement that allows a study of the role of customary land tenure in a more comprehensive manner as it is based on collective land rights and community-based conflict resolution mechanisms. Observing cases that took place within national boundaries is interesting as most countries will at first seek to adapt within national boundaries as it is the preferred option that benefits from more protection (Internally Displaced Persons -IDPs-) and in the particular case of the Pacific, emotional, social and cultural "costs" increase with distance. The main purpose of the fieldwork was to understand the context in which relocation took place, how customary land tenure has been considered in this process, whether customary land tenure provided barriers or facilitated the relocation process, whether land security was achieved at the post-relocation phase, whether land-based tensions were still major in post-relocation vulnerabilities and what is the perception on water tensions before and after relocation.

The *Matawalu* and *Tukuraki* villages were chosen as they were accessible sites at different stages of the relocation process and engaging different stakeholders. The choice of sites was also based on the Fiji Second National Communication to the UNFCCC including potential relocation and a "list of vulnerable communities per sector affected". The villages of *Suvavou, Lami* and *Qauiya* were present in the list and foreseen for potential

relocation in the future. Those three villages are also interesting as they presented challenges associated to land and water access. Also, they reflect the reality of many vulnerable sites threatened by climate change in Fiji but not yet considered for relocation.

5.5 Methods of data collection

5.5.1 Qualitative methods

Data was collected through qualitative semi-structured, narrative interviews and focus group discussions with the affected communities, landowners, customary chiefs, institutional interviews (at national, regional and international levels), as well as interviews with land experts, academics and representatives of civil society. This method used semi-structured and narratives interviews with the aim to cover the multi-causal and complex view of human mobility while addressing the best way possible the communities' way of life. Qualitative data were collected in order to capture land tensions and the role of customary authorities in relocation processes as adaptation to climate change in Fiji.

The first part of the study included data collection based on semi/ micro-ethnographic field study of communities affected by land degradation following extreme environmental events (cyclones, flooding, etc.) that have been or will be forced to adapt to climate change by relocating within the country in Fiji. A semi-ethnographic study was conducted before relocation took place with the aim to evaluate the role of land ownership and tenure security in the relocation process. Field research was also carried out at the post-relocation phase in order to assess post-relocation vulnerability associated with land-based tensions and the loss of customary land systems. One major focus was on the consequences and implications of relocation in terms of conflict, resources distribution and power relations. The second part of the study involved another set of interviews carried out at the institutional level using semi-direct interviews directly addressed at decision-makers and stakeholders at international, regional, national and local levels.

The snowball sampling included the identification of potential participants through the following partners:

1. The help of a guide and cultural advisor was crucial as the Fijian traditional protocol was used to ask for permission to visit communities and get clearance. In the Pacific a written consent is not a practice, building of trust with communities is crucial, engagement with communities is therefore critical as it defines trust-based relationships. His presence allowed me to follow a traditional Fijian presentation to introduce myself while being culturally sensitive by observing cultural ways such as respect to the customary chief. His role as translator also ensured that it was possible to ensure that interviews and any requests would be based on informed, free and prior consent by participants;

2. Customary chiefs were consulted prior to the interviews and discussions. Consultations with relevant participants have been taking place before interviews to ensure that errors are minimized and that there is no misunderstanding on the purpose of the research;

3. NGO point of contact "350" and the Conference of Churches (PCC) were helpful in providing information to access communities and participants.

The Focus Group Discussion and Transect Walking helped then identify and recruit participants as it helped me define the profiles that are willing and happy to cooperate and those that have key roles in the village in terms of subsistence patterns and in relation to customary land tenure structures. The local guide was again present to explain who will be conducting discussions with participants and all relevant information about the research (Figure 29).
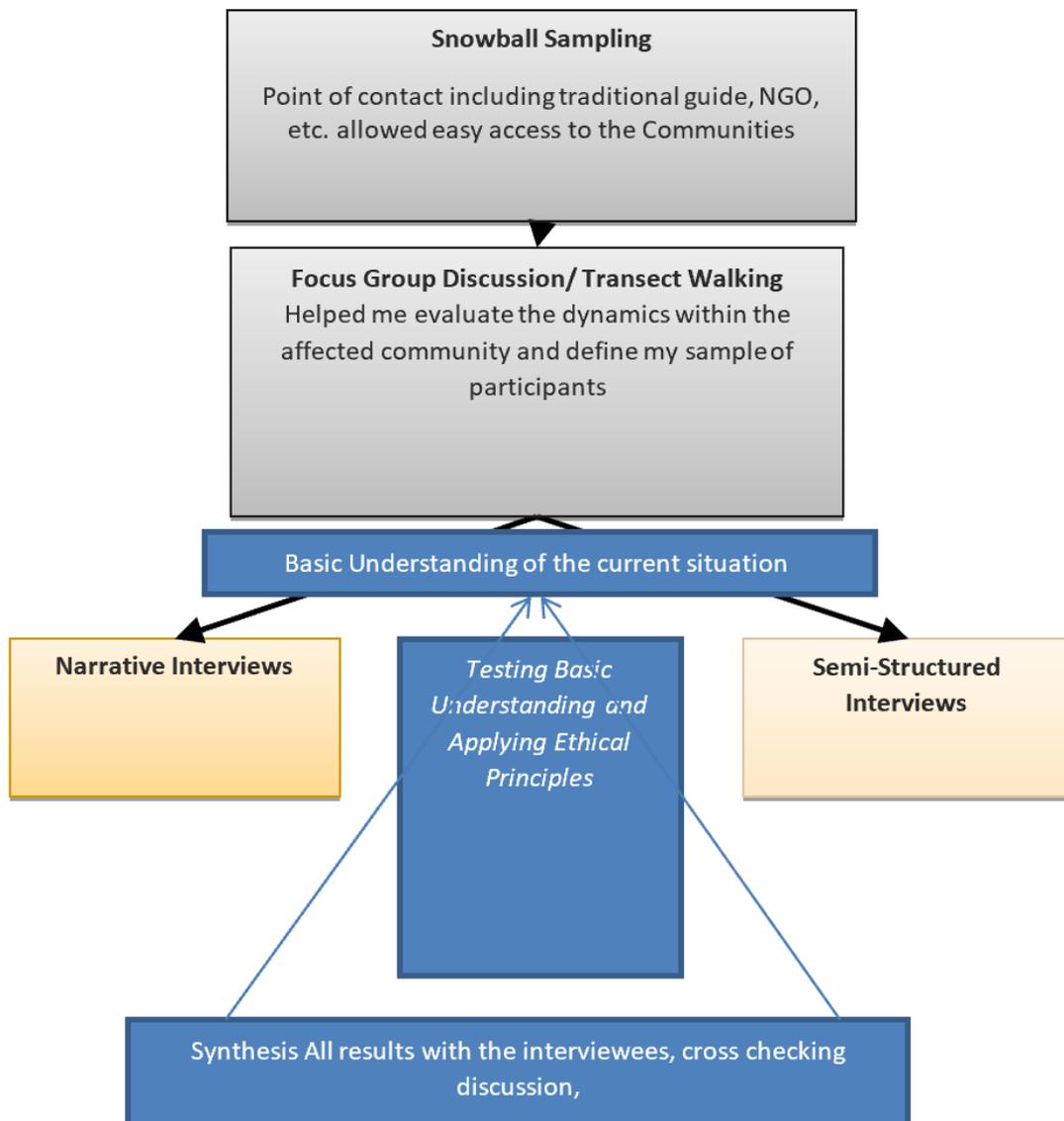
Figure 29: Community field study methodology.

5.5.2   Indigenous methods

A combination of western and indigenous methodologies was used to understand the complexity of an approach to relocation that would include both state-based and community-based governance mechanisms. An important body of lliterature has critically engaged with Western "ethnocentric" view of research and research methodologies. This literature extensively critiques the Western paradigms of research and knowledge from an indigenous and "colonised" perspective. Tuhiwai Smith (1999) made an important

contribution to this literature as "she deconstructs the assumptions, motivations and values that inform Western research practices (the methodologies, the theories and the writing styles) through exploring the Enlightenment and positivist traditions in which Western research is viewed as a scientific, "objective" process." (Wilson, 2001:215). One main argument that we can find in this literature is that "any work by indigenous peoples can only be identified as "legitimate" and "real" knowledge if it fits within a Western framework and has value for the dominant non-indigenous culture." (Tuhiwai Smith, 1999). The Western tradition of knowledge is grounded in positivism while indigenous research has a different epistemological tradition which reflects on a different way of seeing the world, of getting organized as a community and of asking questions. Indeed, Indigenous epistemologies can be defined as "theory of knowledge that is based on Indigenous perspectives, such as relationality, the interconnection of sacred and secular, and holism. The emotional, spiritual, cognitive, and physical dimensions of knowledge are common in Indigenous epistemologies." (Antoine and al. 2018)

5.5.2.1 The "Talanoa" research framework

The literature review revealed that Indigenous methodologies are key to address our topic. Therefore, another reason for us to integrate the study of "perceptions" in our research design as described in precedent sections is to develop a more appropriate research methodology that will have synergies with Pacific peoples' ways of operating and values. Indeed, the focus on "perceptions" is likely to reflect better "Talanoa" (and tui kakala) proposed by Vaioleti (2006) as the most appropriate Pacific research theoretical and methodological framework for researching Pacific issues. Vaioleti (1999, 2003) defines "Talanoa" as "a personal encounter where people story their issues, their realities and aspirations" {…} allowing more "mo'oni" (pure, real, authentic) information to be available for Pacific research than data derived from other research methods". Helu-Thaman (1997) also defines the metaphor of "tui kakala" as a "cultural synthesis of the infonnation, stories, emotions and theorising made available by Talanoa". Those concepts are argued in the literature on Pacific methodologies as key to produce relevant knowledge and possibilities for addressing Pacific issues. We are not carrying an ethnographic study that would enable a long-term connection with participants necessary to reflect such concepts in the study. Therefore, the use of "perceptions" as one of the key concepts in the study is a good way to come closer to the Talanoa methodology by

observing issues, realities and aspirations with more "mo'oni" information.

5.5.2.2 The Vanua Research Framework (VRF)

Furthermore, the Vanua Research Framework (VRF) (Nabobo-Baba 2007) was used in order to ensure that the principle of Holism was fully respected. The principle of holism reflects on the fact that Indigenous thought focuses on the whole picture because everything within the picture is related and cannot be separated (Antoine and al. 2018).

This research has been framed and field study was based on the five main principles used for Pacific research based on the Pacific research, Guidelines and Protocols 2017 developed by the Massey University in 2017;

1. "Respect for relationships: Ensuring that cultural protocols and processes are followed throughout the research process. Respect for research participants is exercised and grounded in humility, the roles of gatekeepers and elders are appropriately acknowledged, and confidentiality is respected."

2. "Respect for knowledge holders: Ensuring that Pacific knowledge, aspirations and wellbeing are integral to research design, research processes, outcomes and outputs. Both research partners and research participants are prioritized as knowledge holders and a participatory approach is adopted in seeking informed consent."

3. "Reciprocity: Ensuring that reciprocity is an integral part of the research process and participants and communities benefit from the research. Reciprocity can encompass gifts, time and service and extends to accessible dissemination of research findings."

4. "Holism: Ensuring the interconnected nature of the physical, social, environmental, cultural and spiritual aspects of research with Pasifika and Pacific communities is understood and acknowledged."

5. "Using research to do good: Ensuring that the wellbeing of Pasifika and Pacific communities and their environment is of central importance in why and how research is conducted, at the same time as ensuring that the research is rigorous and scholarly. The goal of research beneficence applies to both the integrity of the research process and the potential research outcomes and impact." (Pacific

research, guidelines and protocols 2017)

A combination of western and indigenous methodologies was used in order to understand the complexity of an approach to relocation governance that would include both state-based and community-based governance mechanisms. The Vanua Research Framework (VRF) (Nabobo- Baba 2007) was used in order to ensure that the principle of Holism was properly respected including "a balanced and integrated relationship between social life, the environment, spiritual world, and cosmology" (Health Research Council of New Zealand, 2014: 7). The field study was based on a deep understanding of Nabobo-Baba's framework while considering at all stages "the interconnectedness of people to their land, environment, cultures, relationships, spirit world, beliefs, knowledge systems, values and God(s)." (Nabobo-Baba, 2008: 143). All traditional protocols were respected, and as mentioned above, a local translator was present during the field study, the VRF was applied all through the research in order to gather and analyse stories from affected, hosting communities and traditional chiefs involved in the relocation process.

This research approach also involves three underlying principles developed by Nainoca W. : « The interconnectness of all things in the *bula vakavanua* (traditional Fijian way of life), *talanoa* (to tell a story) as dialogue and negotiation to facilitate adaptation of the *bula vakavanua* to external factors ; and *veiwekani* (kinship) through which {…} social capital actions and behaviour are lived out » (Winifereti Ubianalaca Nainoca 2011). It was crucial to value this approach in this study as research among indigenous peoples of the Pacific in the 21st century faced challenges associated to research frameworks that did not consider languages and Indigenous knowledge protocols, philosophies and principles (Nabobo-Baba, Unaisi 2008). It was assumed all through the study that, in order to address their own knowledge and perceptions especially on attachment to land, the research framework needed to respect their view of the world. Those principles are reflected in the methodology chosen in the field. Indeed, the semi-structured format followed for the interviews allowed for the interviewees to respond with their own words which were more suitable to reflect on their view of world and their own perceptions. Also, the semi-structured interview was used to be able to deviate from the initial question and have an open discussion that would make the whole process more natural and less formal which also helped building trust and the sharing of information. For most interviews, I was transcribing people stories with key words and sometimes, I have not

taken notes straight away. I made sure to not record or write extensively while sitting in front of the interviewee when she/he was talking. I have rather opted for a more natural form of discussion driving by my questionnaire while encouraging the interviewee to be flexible in her/his answers. I also made sure to maintain eye contact, focus on the story, the person in front of me and the story that was revealed to me. After each interview I made sure to summarize the answer and by the end of each day I have transcribed each story in detail. This decision was made intentionally to avoid any barriers to a natural flow of discussions that would also have prevented building trust with interviewee. The lack of resources and time spent in the field did not allow me to develop an ethnographic study. However, the field study was based on ethnographic principles as it aimed for an immersion with the interviewee's way of life. I have made sure to respect the traditional protocols and my time spent in the country was mostly through residing at local guest houses in nearby location to the villages. I have also made sure to learn the Fijian basic vocabulary. All this was made intentionally with the aim to be immersed in the local culture within the short time frame. Using semi-structured interviews in a study based on ethnographic principles was best fitted for a study trying revealing perceptions while respecting the interviewee's view of the world.

5.6   How was the data analyzed?

At the community level, selection criteria used for the interviews included gender balance and the diversity of roles within the community (selecting at least one leadership figure). The field study included participant interviews within the affected and hosting communities and their traditional authorities, including customary chiefs, landowners, relocates and hosting communities. Traditional knowledge held by these categories was crucial to capture in order to identify perceptions of the environment and of environmental change that all have social and cultural elements linked to land tenure.

The use of semi-structured and narrative interviews (n=36) in *Matawalu* and *Tukuraki* in *Ba*, *Viti Levu* and in the villages of *Lami*, *Suvavou* et *Qauiya* near Suva was based on a participatory approach aiming to capture perceptions on tensions related to land. This study attempted to specifically assess participants' perceptions of (i) the degree of involvement of the community and customary leaders (at origin and destination sites) in

the relocation process; (ii) issues likely to cause conflicts / tensions over the management and use of customary land (based on points of tension identified following a review of the land management and conflict minimization project - LMCM-)[32] and for *Lami*, *Suvavou* et *Qauiya* (iii) any major impact land tensions would have over water resources (access, quality and quantity) in the sites of origin and destination based on "the scale of aggressive and passive approach to water conflicts" (Zeitoun & Warner 2006) described in Figure 30

Figure 30: Aggressive and Passive approach scale to water conflicts (Zeitoun, Warner 2006).

The community study was based on "perceptions" of the interviewees. The attempt to capture « perceptions » in this study was crucial, as estimates of future climate-induced mobility in the region often do not systematically consider the central concept of 'perceptions'. Any assessments of human mobility in the context of climate change in the Pacific must also include the unpredictable dimension of perceptions in order to reflect the complex and nuanced reality of the phenomenon. Mortreux and Barnett (2009) argue, for example, that the decision-making process in response to climate change is highly shaped by perceptions of the affected population, which are in turn reflective of their social circumstances. Furthermore, the decision to migrate is based on a multi-causal and complex process that is directly influenced by socioeconomic factors at the

place of origin and perceptions of opportunities at place of destination (Connell and King, 1990). Perceptions and intention to migrate in the Pacific within the context of climate change should be contrasted with concerns about trapped populations, that "(…) some people who do not intend to migrate may not have a choice in the future and may have to use migration as a survival strategy. Conversely, the intention to migrate may not translate into actual movements: people who intend to migrate may find themselves unable to do so, lacking the necessary means (for example, financial, social, and human capital)" (Zickgraf 2016 :17). Barnett and Chamberlain (2010) argue that there will be large numbers of people unable to move away from the impacts of climate change in the Pacific, lacking the social and financial means to do so.

In order to understand perceptions related to land tensions at different phases of the relocation process, the study focused on environmentally-induced relocation cases (i) that are almost finalized or had recently been held -*Tukuraki*, category 1- (ii) relocations that are under way or will take place soon - *Matawalu,* category 2- and (iii) villages considered by the government as "at risk" and "likely to be relocated in the future'- *Lami, Suvavou, Qauiya*, category 3-4-. The categorization on planned relocation is based on the 'typology of planned relocation' (Figure 31) that has been conceived for the purpose of this study.
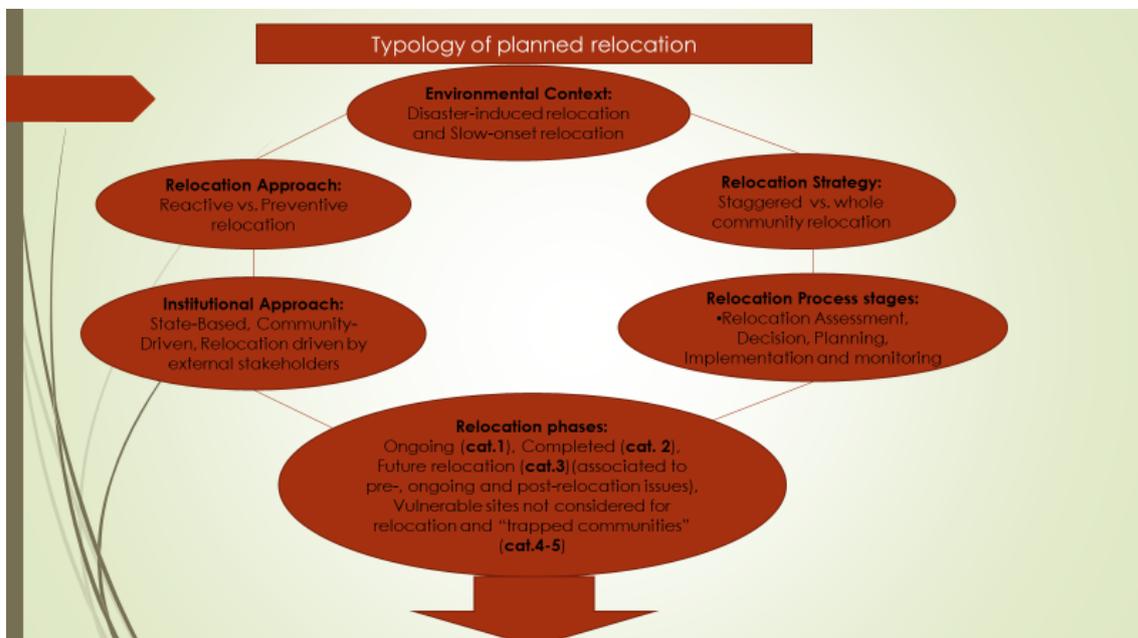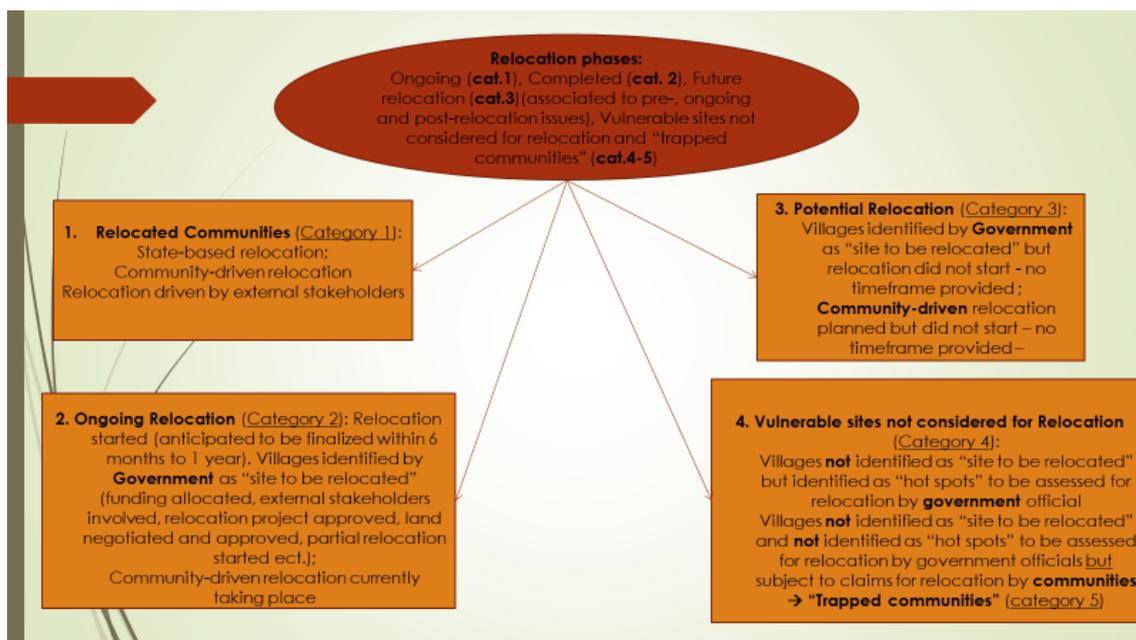
Figure 31: Typology of planned relocation

In order to identify perceptions on water tensions, we have firstly reviewed the literature including Chand et al. (2011), Naidu and Morrison (1994), Gangaiya, Tabudravu et al. (2001), and Singh and Mosley (2003). Following this review, we carried out semi-stuctured interviews with the aim to identify perceptions of tension at pre-relocation phase. The Zeitoun and Warner (2006) framework on water conflicts (Figure 31) was used to assess and rate perceptions on water tensions in the context of planned relocation as an adaptation strategy to climate change at various phases of the relocation process. The questionnaires used the Zeitoun and Warner scale, asking participants to evaluate: (i) current tensions related to water (access, quality and quantity) in the village; (ii) tensions related to water (access, quality and quantity) at the pre-relocation phase (cat. 3); andtensions related to water that could arise (access, quality and quantity) in potential future relocation (cat. 4).

5.7   Challenges

There were a number of challenges experienced in this study. First, the sites studied included examples of planned relocation at ongoing or almost finalised (Tukuraki in Ba province), pre- relocation phases (Matawalu in ba province) and vulnerable sites

considered for potential relocation (Lami, Savouva and Quaiya village in Rewa central division). The intention at the beginning of my research was to also visit Narikoso in Kadavu province, Vunidogoloa (Cakaudrove province) and Denimanu (Bua province) villages in order to collect more data on challenges faced in relation to land at "post-relocation stage". However, those villages were located in remote outer-islands difficult and costly to access from Viti Levu (see Figure 32). Also, resources like translator and cultural advisor fees, the price of the Kava, (essential in every traditional ceremony when accessing villages), were costly and I had to limit the number of villages I could include in the study for that reason. Indeed, financial and time restrictions were the main reason why I couldn't include more villages in the study. However, lessons from Narikoso and Vunidogoloa relocation case studies were observed in Chapter 5 as secondary data.
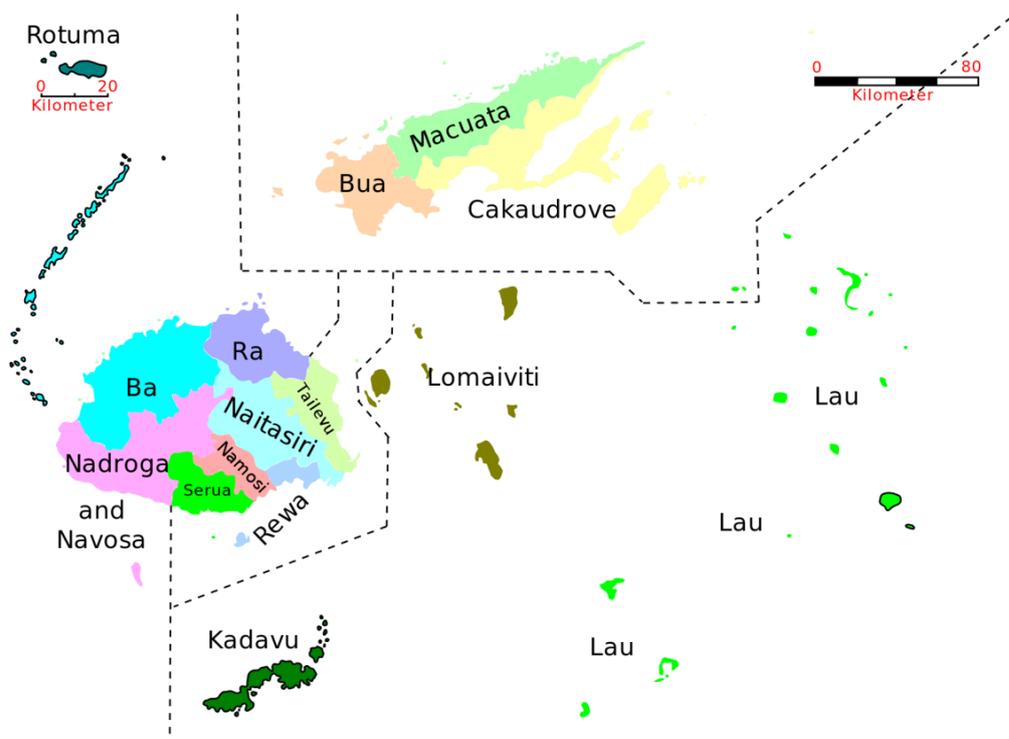
Figure 32: Map of Fiji provinces (Jaldouseri 2016).

Secondly, the use of a translator can cause issue with difficulty in understanding the true meaning of some responses provided by interviewees. The translator had a strong level of English however, it is essential to mention that there might have been some discrepancies in my interpretation of answers due to the language translation.

Finally, not revisiting the villages studied to understand how the situation evolved

through time is another challenge. A longer time-scale study would be essential to understand further the evolution of challenges associated to land in planned relocation. Engaging with the community in a longer timeframe and more extensively would have provided more exploitable data based on an ethnographic study.

CHAPTER 6
Human mobility as adaptation to climate change in the Pacific: An empirical and historical overview

6.1   Introduction

Mobility has been used by Pacific Peoples for generations in order to cope with the adverse environmental impacts. This chapter will discuss mobility strategies that has been used by Pacific Peoples for generations in order to cope with the adverse environmental impacts. It aims to examine some of the past and recent trends of human mobility in the context of climate change in the Pacific region, especially Fiji, while illustrating past and recent examples of planned relocation. The chapter provides then a set of lessons learned from examples of planned relocation that took place in various countries in the Pacific including Kiribati, Tuvalu, Solomon Islands, PNG and Fiji. It will then identify some trends by drawing out some commonalities and differences and whether or not these can be generalized across the Pacific, including Fiji. Most of the chapter will focus on the particular context of Fiji including land tensions in the context of climate-induced mobility. Synthesis will be based on a review of the literature by exploring the concepts of adaptation and resilience, human mobility and land governance in the context of climate change. A review of data will also be included in this chapter including data provided by different organizations in the region and will include both climate change data (from IPCC, national governments and others) and demographic data (from IOM, Internal Displacement Monitoring Centre -IDMC-, national governments).

6.2   Human mobility and adaptation to climate change in the Pacific

As observed in the previous chapters, there is a broad consensus in both research and policy on the impacts of climate change on the region. Climate change will increasingly force Pacific peoples to use adaptation strategies to cope with rapid and slow-onset environmental degradation of their lands. At the Governmental level, it is increasingly recognized that sustainable development policies need to simultaneously include adaptive strategies and focus on Risk Management of Natural Hazards (RMNH) as a priority, so far "regional efforts have not translated well into mainstreaming hazard risk management

at the National level" (Barnett & Webber 2010:15). However, as underlined by IPCC, adaptation to the adverse effects of climate change should be coordinated in priority along with disaster risk reduction activities and community-based approaches to development and must be cautiously planned to avoid increasing risks of vulnerability (IPCC 2014). Gradually, anticipative measures including retreating from coastal areas and development of population relocation preparedness strategies have become a priority for the region (SREP 2010: 5). However, adaptation to climate change translating into practical measures have been few and fragmented with little focus on how Pacific peoples can adapt to climate change while continuing living lives they value (Campbell, Barnett 2010). Anticipative measures and preparedness strategies in the Pacific, essentially translates to planning for community relocation[35] (Lieber 1977: 343) and rehabilitation[36] (ADB 1998: 3). Rehabilitation is critical for all affected communities, whether movement is temporary or permanent, and whether they find themselves in a new or familiar context. Resilience-building efforts must furthermore address the causes of forced migration in the region, including ensuring sustainable subsistence of the population and reducing the risk of subsequent displacement (GoJ 2002).

At the regional level, relocation of human settlement from coastal zones and sea level rise has been identified as a main priority for climate change adaptation since 2012 alongside water security and agriculture (see Figure 33, AUSAID 2012).

	Agriculture	Water Security	Water flooding	Infrastructure(Road &Ports)	Coastal zone, Sea-Level rise and Human settlement	Biodiversity
Cook Islands	X	X	X	X	X	X
Federated States of Micronesia		X			X	
Fiji		X	X	X	X	
Kiribati		X			X	X
Marshall Islands		X			X	X
Nauru		X			X	
Niue	X	X			X	X
Palau/PNG	X	X			X	
Samoa	X	X			X	
Solomon Islands	X	X	X	X	X	X
Tonga	X	X			X	
Tuvalu	X	X			X	
Vanuatu	X	X	X	X	X	

Figure 33: Key Sectors of particular concern at regional level (AusAid 2012)

Climate change is exacerbating pre-existing development challenges in the Pacific creating long-term and immediate risks forcing the Pacific Peoples to use retreat as coping method. Gaffin and Nurse suggested already in 1997 that migration caused by permanent inundation of islands and social instability related to in-migration are direct consequences of climate change and sea-level rise (Gaffin, Nurse 1998). President Anote was the first one in the region to refer to Human Mobility as main adaptation strategy to climate change as well as gradual, facilitated international or internal mobility declaring that "even a marginal increase in sea level would be disastrous… Warning signs are already appearing… The reality is that we have to find alternative homes. The levels already in the atmosphere cannot be reversed" (Solomon Times 2010). However, Human Mobility as adaptation strategy to climate change should be a last resort solution as underlined by the 2011 Nansen Principles stating that all efforts should be directed towards preventing affected people to move, failing which, towards assisting and protecting the people displaced (Nansen Conference, principle 4). The Pacific regional consultation under the Nansen Initiative[37] concluded that it was particularly the case in the Pacific and planned relocation should be considered if no option is left to the affected population. The Nansen Initiative was undertaken following the adoption of paragraph 14 (f) of the Cancún Outcome Agreement in December 2010 (COP16) recognizing climate change- induced migration, displacement and relocation as an adaptation challenge. The Nansen Initiative was developed based on the outcome of the June 2011 Nansen Conference on Climate Change and Displacement in Oslo with the aim to address the need for a more coherent approach to the protection of people displaced across borders in the context of disasters and the effects of climate change.

As seen in Chapter 2 and 3, human mobility in PICTs, as everywhere, is based on a complex decision-making process involving multiple factors. Renaud & al. (2011) have devoted a study to the conceptual framing of the "decision to move" in the context of environmentally-induced mobility and have described this complexity as follows:

> Determining the exact extent that environmental stresses play in forcing people to move is complex for at least two reasons. First, deciphering which of several push and pull factors influence a decision to move is difficult as multiple factors (e.g., social, political and economic factors) often act simultaneously. Second, environmental degradation processes are often a

consequence of the degradation of social, economic and political conditions and vice versa (Renaud et al. 2011 :14).

Mobility patterns in the Pacific, including those influenced by environmental factors, reflect complex decision-making processes involving multiple drivers (Shenn and Gemenne 2011). Highly dependent on sectors considered as "climate-sensitive", the consequences of climate change on PICTs' economies would contribute to population movement making the boundary between forced and voluntary movement difficult to define with various legal implications (Mc Adam 2010). UNHCR responded to this argument that climate change seen as catalyst is a threat multiplier and not the unique cause that may trigger human mobility that wouldn't have happened in the absence of climate change (UNHCR 2011, para. 2). In that case, as defined by Guterres (2007), climate change induces Human Mobility when leaving is not an option, but a necessity. Also, as described in our literature review, any assessments of human mobility in the context of climate change in the Pacific must also include the unpredictable dimension of "perceptions" in order to reflect the complex and nuanced reality of the phenomenon. Mortreux and Barnett (2009) argue, for example, that decision- making process in response to climate change is highly shaped by "perceptions" of the affected population, which in turn are in turn reflective of their social circumstances. The decision to migrate is based on a multi-causal and complex process that is directly influenced by socioeconomic factors at the place of origin and perceptions of opportunities at place of destination (Connell and King, 1990). Further, perceptions and intention to migrate in the Pacific within the context of climate change should be contrasted with concerns about trapped populations, that "(…) some people who do not intend to migrate may not have a choice in the future and may have to use migration as a survival strategy. Conversely, the intention to migrate may not translate into actual movements: people who intend to migrate may find themselves unable to do so, lacking the necessary means (for example, financial, social, and human capital)" (Zickgraf 2016:17). Barnett and Chamberlain (2010) argue that there will be large numbers of people unable to move away from the impacts of climate change in the Pacific, lacking the social and financial means to do so.

Another way to address the complex and multidimensional nature of human mobility in response to environmental events has been addressed by several authors by taking lessons from history and past cases of population movement as result of the impact of

environmental events. This has been particularly explored in the context of the Pacific with authors such as Farbotko et al. (2018), Connell (2010), Campbell (2008), and Hoffmann (2015). The next sections will discuss environmentally-induced mobility in the Pacific through an historical perspective particularly tied to customary land tenure central to this study.

6.3 Lessons learned from past human mobility and implications for adaptation strategy to climate change impacts

6.3.1 Mobility in the Pacific: Historical, cultural context and customary land tenure

Estimates of future climate-induced mobility in the region often do not systematically consider evidence about how traditional and emergent forms of adaptation might minimize the impacts of climate change and therefore warrant consideration (Barnett and Webber, 2009; Kniveton et al, 2008). Adaptation has always been an important part of the Pacific Island communities' methods in protecting themselves from natural disasters but most of those methods have been lost with the time. There are important cultural dimensions to how societies respond and adapt to climate risks (Adger et al. 2013) and Pacific peoples have always used culture and land arrangements to mediate changes in the environment.

Environmental variability and extreme events have always been a reality of life in Pacific Island communities. In historical studies on planned relocations due to the environment in the Pacific, most scholars rely on past case studies in a historical perspective trying to analyze the cause of relocation and understand the reasons for failure or success. Current explorations of relocations due to the effects of climate change take rather on a long-term perspective. Campbell (2008) has been quite influential in studies taking an historical perspective on climate change and human mobility in the Pacific. He distinguishes four types of relocation in the Pacific and was one of the first scholar to strongly emphasis on the central role of land in planned relocation in the Pacific (see Figure 34 - Figure 35): (i) local relocation within customary lands, (ii) proximate relocation beyond customary lands, (iii) relocation within national boundaries but at some distances from traditional lands and (iv) international relocation.
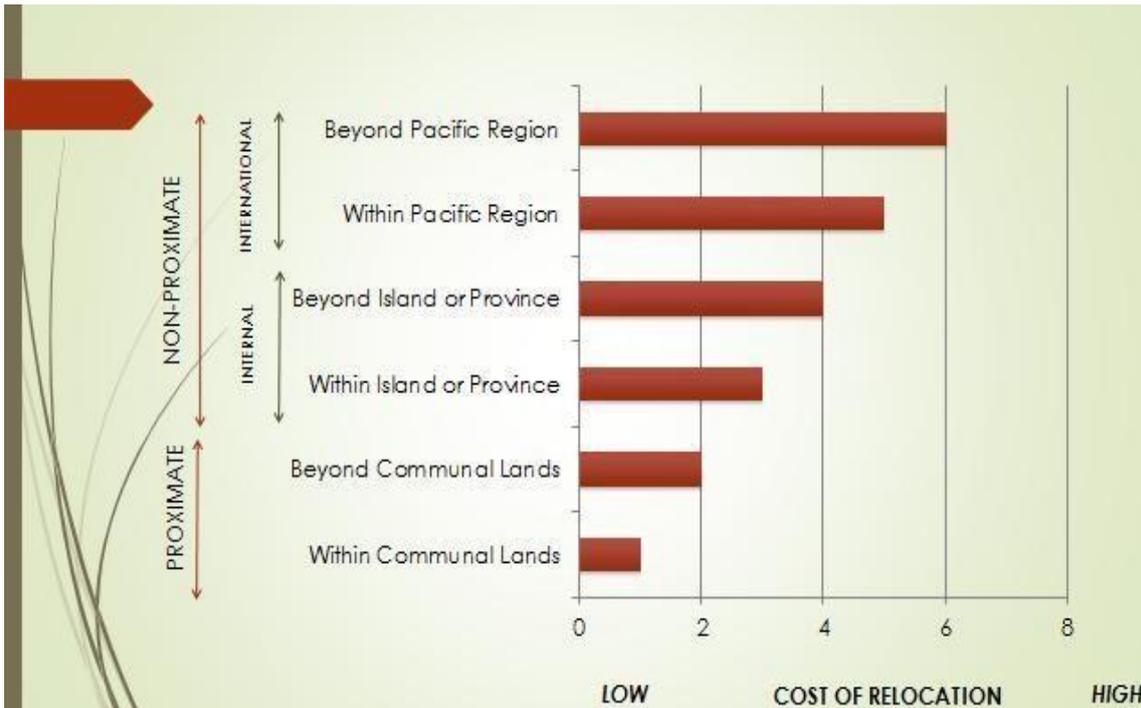
Source: J. Campbell, "Climate Change and Population Movement in Pacific Island Countries", Climate Change and Migration South Pacific Perspectives, Institute of Policy Studies, School of Government Wellington, 2010.

Figure 34: Cultural, social, political, psychological, and economic costs of community relocation based on differing thresholds of relocation.

		Induced Migration (Individuals and families migrate)	Forced Migration (Communities relocate)
Internal Migration	*Proximate (own lands)*	Not Likely	Least disruptive
	Proximate (others' lands)	Not Likely	Land can be problematical
	Distant (mostly rural → urban	Most Likely	Difficult to sustain community
External Migration	*Regional (other Pacific Island countries)*	Possible	Possible to sustain community and lifestyle but Land problematic
	International	Most Likely	Very unlikely to sustain community and lifestyle

Figure 35: Summary of climate migration options in Pacific countries (based on historical case studies) (Campbell 2010)

These categories have inspired several authors in their works and have consequently been further developed. Traditionally, Pacific Islanders have used a wide range of coping

measures to sustain themselves in the face of the adverse effects of their environment, and Pacific cultures are embedded with a deep understanding of climate variability and patterns. Campbell (2010) has also identified four main coping methods inherent in the long traditions of Pacific Island cultures: the maintenance of food security through surplus production, food storage, crop diversity, and food preservation; inter and intra-community cooperation; environment-adapted settlement patterns and housing design; and the use of traditional environmental knowledge systems (Campbell 2006). These local adaptation strategies have been eroding over time, and disaster relief operations have contributed to this decline (Campbell 2010). Nonetheless, recent studies of adaptive capacity in the Cook Islands, Fiji, Samoa, and Vanuatu indicated that traditional coping methods are still used to deal with the environment hazards, with strategies that are still in use focusing on traditional methods; faith and religious beliefs; traditional governance and leadership systems; family and community involvement; and agriculture and food security (Fletcher et al. 2013).

Within this context, migration has been traditionally used as a coping method used to deal with environmental risks. As one study notes:

> Migration has always been an adaptation strategy to climate change in most [Pacific Island] countries and can become part of the solution in the face of climate change. {…} Seasonal and circular migration has always been used as adaptation strategy to cope with the natural annual change of seasons. This is particularly the case in rural areas at early stages of environmental degradation in reaction to slow-onset changes. (Kniveton et al. 2009).

For generations, Pacific Island communities' traditional adaptive strategies, culture, and practices have included retreating from coastal zones following extreme environmental events. Historical case studies on environmentally-induced Human Mobility in the Pacific region have been well covered by the Asia-Pacific Network for Global Change research project (APN) (Figure 36) revealing that out of the 86 assessments of community relocation, 37 were caused by natural hazards, 13 by environmental degradation due to human actions (mining, nuclear testing, etc.) 9 by conflicts and 9 by development projects (Campbell, 2005).
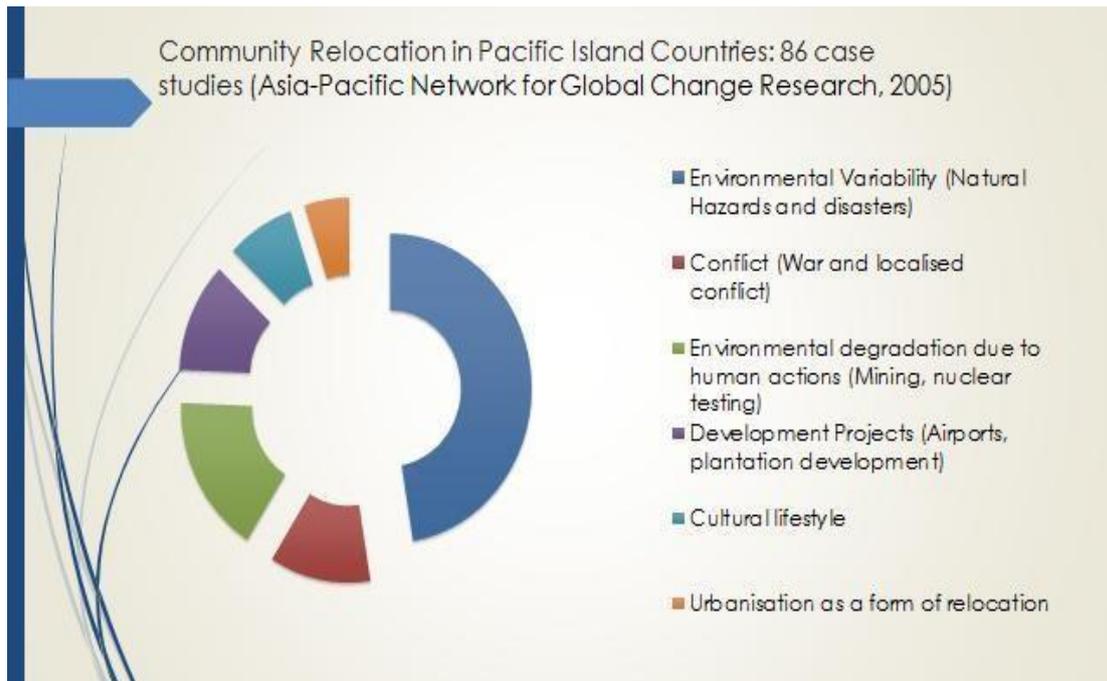
Figure 36: International and National Relocations ranging in distance from over 1800 km to less than one between 1920 through to 2004 (under Colonial administration and National Sovereignty) (APN 2005).

Numerous studies have shown the importance of historical processes in order to better understand and address current and future climate-induced migration in the Pacific (e.g. Edwards 2013, McAdam and Ferris, 2015, McAdam, 2014, Campbell et al., 2005, Campbell, 2010). Recent literature on human mobility as adaptation strategy to climate change in the Pacific emphasis on the role of place of attachment (land) and the need for mobility to create opportunities engaging with histories and existing patterns of mobility among Pacific Peoples (Farbotko & al., 2018, Gharbaoui & Blocher 2016, 2017). Many traditional risk management and response strategies, such as customary land ownership structures, have been lost in the post-colonial era, leading in turn to the loss of shared social and cultural identities, spaces and meanings. At the same time, historical colonial ties help shape current patterns of migration, such as shown in mobility research in Tuvalu and the importance of trade agreements (Shen and Binns, 2012). The adverse effects of climate change are likely to increasingly motivate islanders to migrate in order to cope with threats to their livelihoods. Therefore, human mobility in the Pacific in a changing climate needs to be understood in the context of both traditional and modern approaches to adaptation, and include consideration of traditional knowledge, cultural attitudes, values and practices, and local expertise on community relocation as adaptive responses

to extreme environmental events. Translating traditional knowledge into policy and finding ways to merge it with the best practices on planned relocation should be urgently addressed (Gharbaoui and Blocher 2016).

Culture, place attachment, and customary land arrangements are other important factors often described in the literature discussing past cases of climate change and human mobility in the Pacific region (Barnett and Webber 2010). The concept of "transformative mobilities {…} where mobility, adaptation, and development intersect to achieve the best possible outcomes for cultural identity, human rights, adaptation, and human development goals across scales and in origin and destination sites" has been developed recently placing place of attachment and cultural identity at the center of the study of climate-induced human mobility in the region (Farbotko & al.: 2018: 4). In a study of climate and migration in Tuvalu, Mortreux and Barnett (2009) found that migration decisions are shaped in a significant way by families' and communities' spiritual and social ties to their land. Land has been described by Pacific Islanders as, "an extension of the self; and conversely the people are an extension of the land" (Ravuvu 1988). The importance of customary land tenure including in its historical form is increasingly analyzed in studies on the human mobility and climate change nexus in the Pacific. However, its influence on mobility outcomes in the Pacific varies according to the context, as customary land systems are diverse in the region. A continuum of land rights arrangements that span from freehold to informal settlements may be found across Pacific Islands, and authors such as Mitchell (2016) highlight the importance of accounting for such arrangements when assessing migration and relocation possibilities and outcomes under climate change. Looking ahead to the need for possible planned relocations due to climate change, Barry and Augustinus (2015) note that future tenure arrangements need to be found that best suit the cultural and economic need of communities and of the larger state authority. Others highlight the importance of developing a "middle-ground approach" that includes negotiation at early stages of the relocation process including governments, local leaders, land owners, the communities being relocated and the hosting communities (Gharbaoui and Blocher 2016). This recognizes the inherent tension in Pacific Islands of collective versus individual land rights.

6.4 Environmental migration and displacement in the Pacific region: Some recent trends

There is varying evidence with respect to the role of environmental factors; including climate change and sea level rise, currently play as drivers of migration in the Pacific Islands. Research done in 2015 by the Pacific Islands Forum Secretariat and United Nations University-Institute for Environment and Human Security (UNU-EHS) found that land degradation, deterioration of water conditions and infrastructure, combined with new economic and social challenges directly or indirectly linked to climate change represent 17% of the reasons for which people migrate. A far more important driver is unemployment, cited by two-thirds of participants in that study (Corendea et al. 2015: 12). In a different study, the Pacific Climate Change and Migration (PCCM) project[38] identified migration patterns and top international destinations for people living in Kiribati, Nauru, and Tuvalu between 2005 and 2015. It found that slow-onset environmental events have affected most households living in those countries (94% in Kiribati, 97% in Tuvalu, and 74% in Nauru), leading to migration either to ensure income or to find an alternative to land. However, it found that only 23% of migrants in Kiribati and 8% in Tuvalu named climate change as being a reason for migrating. In a practical sense, international migration is at present not a widely available option for responding to climate risks. International migration opportunities for residents of Tuvalu, Kiribati and Nauru are mostly limited to seasonal worker schemes in Australia and New Zealand, newly developed semi-skilled worker visa programs in Australia, educational or skilled labor migration to Australia, Fiji, and New Zealand (PCCM 2015). Although references are often made in the media to special migration programs that allow residents of Kiribati and Tuvalu to move to New Zealand, these add up to about 75 people per year (PCCM 2015). Although it is regularly cited as being highly exposed to the impacts of climate change and sea level rise, international migration from Kiribati is quite low: from 2005 to 2015, 1.3% of the population moved abroad. International migration rates are higher in Nauru and Tuvalu, where 10% and 15% respectively of people had migrated abroad. 10% in Nauru and 15% in Tuvalu.

Most documented examples of migration in the Pacific Region for climate-related reasons is internal, not international. Natural disasters and adverse impacts from strong El Niño

Southern Oscillation (ENSO) events already lead to population displacements in many parts of the Pacific,

and the scale of harm and number of people affected tend to be disproportionately high. In Papua New Guinea, for example, cyclones, flooding and earthquakes regularly cause internal displacements IOM (2015). Statistics from the Internal Displacement Monitoring Center (IDMC) suggest that 151,000 people were displaced in Papua New Guinea during the period 2008–2013, two-thirds of them by natural hazards (IDMC, NRC, 2014: 5). As noted earlier, population growth and urbanization rates in many Pacific Island nations are already high and are expected to increase as a result of climate change. Modelling exercises carried out for PCCM (2015) that assume a medium climate change scenario (IPCC RCP 6) suggest that, in the 2050s, internal migration for Kiribati and Tuvalu will increase by 100% and 70%, respectively.

Recent ENSO-related weather events provide insights into the scale of vulnerability of Pacific small island states to climate-related disasters. An ENSO event in late 2015-early 2016 led to increased drought and food insecurity in parts of Fiji, Vanuatu, the Solomon Islands, and Papua New Guinea. In February 2016, a state of emergency was declared in the Marshall Islands as drought caused severe water shortages (Radio New Zealand 2016). The frequency of cyclones in the Pacific tends to go up during ENSO events; this was observed in 2015 with 21 storms of category four and five in the North Pacific, four more than the previous record of 17 in 1997 (Becker, 2015). It is thus not surprising that the latest Global Report on Internal Displacements (GRID) 2016 that reports on internal displacement caused by sudden-onset disasters stated that:

> As in previous years, south and east Asia and the Pacific regions were worst-affected by displacement associated with disasters, and the vulnerable, coastal populations of small island developing states (SIDS) were disproportionately affected again (IDMC 2016:7).

Tuvalu, Vanuatu, Micronesia and Kiribati often figure in the top five most affected countries when it comes to disaster-induced displacement relative to population size. IDMC (2016) statistics for 2015 estimated displacement rates of 54,800 people displaced per 100,000 inhabitants in Tuvalu; 41,700 in Vanuatu; 6,500 in Micronesia; and 2,200 in Kiribati. Much of this was attributable to Cyclone Pam, a category 5 storm that struck in

March 2015. Ten thousand people were displaced in Tuvalu, more than half its population. In Vanuatu, a quarter of the population was forced to move, and around 166,000 people required emergency assistance including 65,000 IDPs requiring emergency shelter and 15,000 homes destroyed or damaged Internal migration and displacement due to climate change displacement will generate growing challenges to land and food security, state-sovereignty, and culture preservation. There is no strong evidence linking climate change directly to conflict but increasing human insecurity could conceivably act as a "threat multiplier" in countries such as Papua New Guinea, which has experienced past events of inter-community violence and consequent displacement (Corendea et al. 2015: 29). Competition over scarce socioeconomic and natural resources could lead to increased levels of violence and conflict between groups in the absence of adaptation measures.

Among Pacific islands the limits to adaptation are a concern of significant weight in PNG, where nearly all natural hazards co-exist, most of which will be exacerbated by climate change. PNG's volatile environment and geographic location on the so-called Pacific Ring of Fire (Ramakrishna and Bang, 2015:68) makes its people vulnerable to many hazards, such as volcanic eruptions, tsunamis, earthquakes, tropical cyclones, floods, landslides, El Nino and droughts (NDC, 2015; Australian Bureau of Meteorology and CSIRO, 2014:220; Government of Papua New Guinea, 2010:13). According to the Internal Displacement Monitoring Center (IDMC), a total of 151,000 people were newly displaced by disasters in PNG between 2008 and 2013, two thirds of which were due to natural hazards. Another 50,000 people were reportedly internally displaced by conflict and violence during the same period, further contributing to a cycle of vulnerability to shocks and stresses (Ibid).

6.5   Some lessons on Planned Relocations

In the next five to ten years, 34 to 45 villages are expected to be relocated as result of coastal erosion and sea level rise (RTCC, 2014; Chandra, 2015). In those future relocation projects land and conflicts associated to cultural patterns are extremely sensitive as reiterated by Colonel Apakuki Kurusiga, Deputy Head of the Ministry of iTaukei Affairs:

> For generations, a community has come to identify with the piece of land they have called home, and in these they have stored their history, their genealogy and their very being {…}. So it is by no means an easy exercise for these coastal communities to leave their "yavu" and relocate (Pareti, 2013).

As underlined in preceding sections of this chapter, Human Mobility is not something new in the Pacific region, it is particularly the case for planned relocation. Before the mid-20th century, relocation was perceived as an anticipatory response to overpopulation, resource scarcity and conflicts (McAdam, 2015). After World War II, several cases of planned relocation have been recorded in the region. The reasons for these movements of population were diverse including mining, infrastructure projects and environmental pressure. Today, many countries in the Pacific region have actively considered planned relocation as an adaptation strategy to climate change and sea level rise (Gharbaoui and Blocher, 2016). The relocation scenarios can take various forms. Local relocation that takes place within national boundaries is the most obvious option. In the context of the Pacific, the most likely scenarios would entail relocating coastal populations to more elevated land positions close to their existing locale (UNHCR 2008: 15). Doing so, however, would in many countries require moving people outside the boundaries of their traditionally held lands, which would raise a whole suite of social, economic, cultural and political challenges, and potentially generate conflicts over land use (Campbell et al. 2005, Loode et al. 2008). Negotiation and access to land in planned relocation could therefore be crucial in determining whether relocation is sustainable or not. In the literature review (Chapter 2), we have acknowledged the difficulty of defining "successful or unsuccessful" relocation. Rather than discussing planned relocation in those terms, we have rather chosen to consider relocation as sustainable or unsustainable (see Chapter 2). Furthermore, we have discussed the blurred boundaries between relocation and resettlement and have mentioned that we will be using relocation and not resettlement for several reasons (see Chapter 2). Finally, as discussed in the literature review, planned relocation has been mostly defined and discussed in the literature referring to development-induced relocation. Criteria usually taken from the development- induced relocation and resettlement literature are that relocation should be a development opportunity and that relocated population should not fall into the multiple

risks discussed in Cernea's Risk and Reconstruction Model (see Chapter 2). Relocation as adaptation strategy is conceptualized differently in national policy all over the region but at the global scale, the Pacific has been showing leadership in developing unique and precursor frameworks on relocation as adaptation strategy to climate change. Fiji has been a pioneer in developing guidelines for planned relocations while Kiribati has introduced the "moving with dignity" framework promoting relocation as option providing development opportunities for its population. Pacific States are struggling to deal with well-managed, "sustainable" internal relocation of communities within their own boundaries (Haines and McGuire 2014). Fiji, at the core of our analysis presents an interesting case study of internal planned relocation as more than 600 villages have been identified as particularly vulnerable while 40 villages will be relocated within the next 10 years (Piazza 2014). The next section and chapter 5 will be exploring past and recent planned relocation in the Pacific tied to the Fijian context more specifically. However, in other Pacific Nations, examples of planned relocation such as those described below have been accelerating in the last decade and present a series of lessons interesting to discuss in the framework of this study. Those examples will also be interesting to use in our comparative analysis of past and recent examples of planned relocation that will be illustrated in the next section that will include examples from Fiji in pre- and post-colonial context.

6.5.1   Kiribati and Tuvalu

Kiribati and Tuvalu and the foreseen inundation and destruction of their entire land forcing its population to relocate are very well-documented case raising issues around self-determination, statelessness and forced international relocation with no possibility of return (Wyett 2015). In this case, normative gaps exist as there are no legal tools allowing to consider the relocated population as migrant workers or refugees and it is uncertain whether provisions on statelessness would apply as discussions on maintaining a symbolic presence in the Pacific Ocean through a human built-up island platform didn't materialize into any concrete decision so far (Kalin 2010: 90-91). However, the government of Kiribati has highlighted that all efforts will be put in keeping Kiribati as a sovereign state, relocation would be in any circumstances considered only as a last resort, confirming the Nansen Principles (as explained in the previous sections, the Pacific

Regional Consultation organized by the Nansen Initiative suggested that relocation should be considered as a last resort option to be used only after other adaptation or mitigation measures have been considered) and the Niue Declaration Climate Change, 2008, preamble para. 5 reaffirming that Pacific peoples prefer to remain *in situ*, decide for their own future by themselves as they wish to continue living in their countries where possible. Indeed, in some Pacific countries a majority of the population does not wish to relocate; it is the case in Kiribati, where 65% of the population has expressed not wishing to relocate if possible (Leckie, 2016: 247).

At the same time, the State of Kiribati has decided to preventively develop a relocation strategy to not leave its population of 110,136 people (Kiribati National Statistics Office, 2017) with no options if no other adaptation strategy would be possible. The aim of Kiribati Government is also to ensure that relocation is made "with dignity" and that the receiving countries have less burden to bear associated with the relocation. The relocation strategy of the Kiribati Government is based on two main factors. Firstly, the creation of opportunities to enable the smooth transition of those willing to relocate through the foundation of a support network for expatriate communities. In the middle-term, this would also benefit those who stay by increasing the level of remittances. Secondly, the standard level of qualifications available in Kiribati will be raised to the Australian and New Zealand's Qualification Authorities (NZQA) levels to ensure people moving from Kiribati are attractive to the hosting countries education and job market. This "win-win" configuration is key to the concept of "migration with dignity" developed by President Anote as the Government consider it as central to the effectiveness of the Government's relocation policy. President Anote considered as crucial to develop a policy that would place its population in a position enabling them to offer the needed skills to receiving countries while benefiting from the relocation by getting more options in the job market (Office of the President of Kiribati 2018).

The Niue Declaration is crucial when addressing climate-induced mobility in the Pacific as representations, perceptions and portrayals of Pacific Islanders as "climate refugees" willing to migrate have been subject to heavy criticism from academics (McNamara and Gibson 2009). Farbotko (2010) provides a critical evaluation of debates on sea level rise, which she says have been dominated by Western mythologies of islands being little more than laboratories and experimental spaces. Along these lines, Shen and Gemenne (2011)

point out the critical need for population of the Pacific concerned by climate change to speak for themselves and, citing the case of Tuvaluan migration to New Zealand, point out that the reality of that migration is more complex than how it is portrayed in the media. Rather than view themselves as refugees, Pacific Islanders increasingly call for the possibility of "migration with dignity" as the impacts of climate change take hold, which would allow for greater labour migration from SIDS to wealthier economies (McNamara 2015). "Migration with dignity" has been an important framework for the region and was replicated by other Pacific leaders as it helped creating a scission with the contested narratives of "climate victims" and the SIDs referred to as "canaries in the coal mine" or as "laboratories of climate change" home to the "first climate refugees" used first to refer to Tuvalu and its capital , Funafuti, that are facing similar challenges then Kiribati and are also forced to consider relocation as adaptation strategy. The small population of 10,000 living on Tuvalu atolls will similarly be affected by the loss of their territory. The Government of Tuvalu has also been considering adaptation *in situ* first and then have approached other neighboring states to re-establish their Nation once under water with no concrete output until today. Gemenne (2010) highlighted that the contrast between the Western perception of Tuvalu as symbol of future climate change impacts, the "canaries in the coalmine" and the perception of the Tuvaluan population presents a risk for local adaptation processes in the region.

6.5.2 Solomon Islands

In Solomon Islands as it is the case in many other Pacific Nations, relocation is mostly community based and with no involvement from the government that doesn't have the capacity to undertake relocation projects and no political framework to protect the relocated population. Solomon Islands has rather interesting cases of community-driven relocation based on the use of flexible land tenure systems enabling the community to adapt to sea-level rise and coastal erosion without waiting for governmental support or external budgets. A small number of relocation initiatives led by the government have been restricted due to limitations related to land tenure systems, relocation planning, governance framework and financial support (Albert & al. 2018). The relocation of Choiseul township in the Solomon Islands is another type of recent relocation driven by external stakeholders that started in 2015 and planned for 2030 aiming to relocate

infrastructure and population of 900 people from the capital of Choiseul province in Taro Island to a new location not subject to low-lying inundations. This relocation is financed by an Australian-based private consulting company (BMT WBM) in partnership with the Australian government's Pacific Australia Climate Change Science and Adaptation Planning program. A climate change risk and adaptation plan has been developed (Haines and McGuire 2014) but the relocation as such has not been finalized mostly due to a lack of funding.

6.5.3   Papua New Guinea (PNG)

Many comparisons have been made between case studies in Fiji and other Pacific Islands Countries having customary land tenure systems that may, however, differ from one country to another and within countries. Fiji is also often compared with PNG in studies on environmental human mobility as customary rights mainly rule the country Carteret Islands and Manam relocation in PNG are often cited as an example or used as comparative case studies of environmental human mobility.

The ongoing Carteret integrated relocation project in Papua New Guinea was initiated by a local NGO "*Tuele Peisa*" instigated by the Council of Elders of the Carteret Islands in 2012 with the aim to relocate infrastructures and around 1,700 people from Carteret Islands, threatened by inundations to a safer land donated by the Roman Catholic Church in Bougainville Island. Half of the Carteret Islanders should be relocated by 2020 (Ferris 2011). This project is ongoing but very slow due to the lack of budget (around US$5.3 million). In the end of the 1960s, intense storms started causing coastal erosion and affecting natural resources and agriculture (Connell 1990). Discussions amongst researchers underlined the possible volcanic origins of this erosion while others linked the phenomenon to climate change (Edwards 2013). However, coastal erosion of Carteret Islands has been recognised as exacerbated by climate change (IOM 2015: 34).

Within Pacific communities, culture and place attachment are among the most decisive factors in household decisions, including the decision to migrate (Barnett & Webber 2010: 62). Such a depth of attachment to place and to land is evident in the case of the Manam relocation. Manam relocates, after over ten years of living in another location continued to carry out burial practices on their home island, the physical resting place of

their ancestors. The local islanders interviewed insisted that the coconuts will always be sweeter, the fish more plentiful, and the soil richer on their island (Connell & Lutkehaus, 2016). Results from the Manam case study derive from desk research, discussions with key informants and practitioners in Port Moresby, Madang and in Europe – in particular, from local staff of the International Organization for Migration (IOM) - and observations during site visits, all of which were made in the framework of research for the Migration, Environment and Climate Change: Evidence for Policy (MECLEP) programme all deriving from Gharbaoui, Blocher (2017). After eleven years living in protracted displacement away from their ancestral lands, a small but critical brick has been laid in the foundation of the future for the displaced Manam people (Figure 37). This group of communities from different villages of Manam Island, located in the northeast of PNG, have been living in protracted displacement in government-supported "care centres" on the mainland in Bogia district since they were evacuated due to an impending volcanic eruption in 2004-05. In April 2016, much to the satisfaction of local and provincial leaders alike, the Manam Resettlement Bill was passed in PNG's parliament (Shisei 2016). The law authorizes the legal basis for the main authority in Bogia District charged to seek viable options and use government funds for a resettlement plan for the Manam groups.

Figure 37: Young Manam men in a care centre boil fish, yams and local greens in coconut milk for their visitors using traditional cookware as others look on. Traditionally women and girls prepare meals. In recent years, according to Manam residents, they have had more difficulty fishing and are often finding smaller and smaller fish between the mainland and Manam Island. This is likely to be a result of overfishing as well as the destruction of corals due to dynamite fishing, cyanide fishing, and the harvesting of coral to make powdered lime (which is chewed with betel nut, a popular stimulant). (Photo © Julia Blocher, 2015).

The precedent sections provided an exploration of the latest scientific literature with the aim to understand the current challenges caused by climate change in the Pacific region including an analysis of the concept of "human mobility" as adaptation strategy to climate change in the region. Both slow and rapid-onset events are gradually affecting the Pacific with intraregional specific challenges affecting each country differently according to their size, geographic location, political context, resource endowments, and state of economic development.

Population moves as result of adverse environmental events can be traced in Pacific history back to the colonial period. Pacific Peoples for generations used this adaptation strategy in order to cope with the adverse environmental impacts. Historical perspectives are well documented in studies on the environment and mobility nexus in the Pacific context. Authors such as Campbell, Farbotko, Ravuvu are to be cited to illustrate this type of studies and are prominent in providing comprehensive analysis on the role of customary land tenure in past cases of planned relocation. The central role of customary land tenure, place of attachment and cultural identity have all been identified as central in studies taking an historical perspective on human mobility as result of extreme environmental events in the region. As defined in the section on terminology of our chapter 1, "Human mobility" as adaptation strategy to climate change includes migration, displacement and planned relocation. The present chapter presents an overview of recent data and research relevant to all those three forms of Human Mobility. Data mostly showed that migration and displacement as result of environmental events have been accelerating in the last decades with land degradation, deterioration of water conditions and infrastructure, new economic and social challenges directly or indirectly linked to climate change representing 17% of the reasons for which people migrate (PIF, UNU-EHS 2015). Displacement numbers have been particularly prominent in the case of Tuvalu, Vanuatu, Micronesia and Kiribati that are the top five most affected countries when it comes to disaster- induced displacement relative to population size (IDMC 2016). Those types of population movements will create a growing number of challenges associated to land and food security, state-sovereignty, and culture preservation. Here again, customary land tenure is of central importance when observing challenges associated to land in the context of climate-induced migration, displacement and planned relocation. Internal migration, displacement and planned relocation is the most important

category of human mobility in the Pacific as it is the case for most "south-south" population movements. Indeed, data reveals that international mobility in the context of climate change is minor in comparison to internal mobility and movements are mostly intraregional rather than international making "south-south" mobility the most important form of mobility after "south-north" and "north-south" mobility.

Finally, the last section illustrated recent examples of planned relocation in the region including Kiribati, Tuvalu, Solomon Islands and PNG. Firstly, the cases studies revealed that relocation can be either state-based, community-based or led by external stakeholders such as private groups, Foreign Governments, International Organisations or NGOs. The relocation outcomes seem to vary in part according to the way relocation has been approached and by which stakeholder. Funding the relocation process is a crucial aspect of these outcomes and cases such as Carteret relocation clearly reflects on issues related to the lack of funding. This is particularly the case in community driven relocation that is undertaken in some cases after a lack of involvement and funding from the State. The following sections and chapter 5 illustrating field study in Fiji will provide an analysis of case studies in Fiji and will attempt to shed the light on more specific characteristics tied to each category of relocation (State-led, Community driven or externally funded). Another observation from those case studies all through the Pacific is the crucial role attachment to place holds in the relocation process. Attachment to land is central and reflected through different means according to the various contexts. At State level, the cases of Kiribati and Tuvalu show that relocation should be only a last resort solution as the population is strongly attached to its land and wish to remain *in situ* where possible. The Niue Declaration reaffirms this principle and the Pacific values around attachment to land and cultural identity. In the case of the government supported Manam relocation, villagers have expressed their strong attachment to land by keeping a strong bound with their home land.

Lessons drawn from in previous sections will help providing contextual background to the Fijian case studies present in the following sections and chapters and allow a comparative analysis with the aim to put in perspective those examples of relocation with the Fijian case studies. We will then attempt to identify some commonalities and differences while drawing conclusions that will help provide information on our main research question; "How can planned relocation be conceptualized as an adaptation

strategy to climate change using Fiji as case study" that is our main research question. For this purpose, we have chosen cases of planned relocation taking place in Pacific countries and Fiji with various political and geographical contexts.

Ultimately, the previous sections provided a broad introduction to the concept of "Human Mobility" as adaptation strategy to climate change including the Pacific regional context as a whole while introducing the next sections of the thesis focusing on the particular context of Fiji.

6.6   Climate change, planned relocation and land issues in Fiji

The preceding sections presented a critical review of the current trends related to Human Mobility as adaptation strategy to climate change in the PICTs region as a whole while this chapter examines the Fijian context. Many of Fiji's climate policies are drawn from regional initiatives on climate change and Human Mobility such as the Strategy for Disaster and Climate Resilient Development in the Pacific (SRDP) formally adopted and known as Framework for Resilient Development in the Pacific (FRDP) for that is the overarching regional policy framework for integrated action on climate change. Fiji is also seen in the region as leader in climate action as former chair of COP23 through SPREP, for offering to provide sanctuary for possible climate migrants from Kiribati and Tuvalu and for hosting regional institutions such as the Pacific Islands Forum (PIF) which are mandated and central to address climate change challenges in the region.

The example of Fiji used in the thesis through this chapter and the field study (see chapter 5) is useful to provide a reflection; firstly, on how customary land tenure systems and legitimate traditional authorities are considered throughout the relocation planning and implementation processes. Secondly, it seeks to propose a reflection on how to optimize land governance and tenure security and create the conditions for a more inclusive environmental relocation framework adapted to the local customary land tenure governance mechanisms. A strand of argument made in this thesis is that customary authorities and institutions are very significant actors in relocation. In the Pacific region in particular, these leadership structures and traditions form their own governance mechanisms that may be external to those of the "modern" state and legal systems (FAO 2002; Tobin 2008; Farran 2011).

This section aims first at providing a critical review of the case studies on land tensions induced by planned relocation in Fiji and addressing the question of how customary land should be addressed in the process of relocation. In order to document and analyze the available literature three key areas are of interest: (1) Land degradation as migration driver, (2) Land-induced displacement and (3) Land ownership and planned relocation. However, the section will focus on (3) Land ownership and planned relocation, risk related resettlement and land management in Fiji as central to the thesis research question, topic and main objectives. It will also present an overview of challenges faced in planned relocation as adaptation strategy to climate change in the particular context of Fiji as well as post-relocation vulnerabilities related to land tensions through two historical cases of planned relocation induced by the environment that took place during the pre-colonial and colonial period in Biausevu and Solodamu villages and two recent cases of planned relocation in Narikoso and Vunidogoloa villages described in recent studies by Charan et al. (2017) and Cleaver and Hutt (2017).

6.6.1 Overview of past and recent case studies

As already introduced in our previous sections, historical case studies on environmentally- induced human mobility in the Pacific region have been well covered in the study of the Climate Change and Human Mobility nexus. Authors such as Mc Adam & Ferris (2015) emphasized on the relevance to insert historical case studies to inform future policies; "In particular, historical cases of relocation in the Pacific, whether for environmental or other reasons, provide insights and analogies that may be useful for contemporary policy deliberations."

Figure 38 summarizes the case studies that are often cited in the literature on climate change, planned relocation and land tensions in Fiji. In Fiji, there are four case studies on which the theories and concepts of the researchers are based. Figure 38 shows the type of relocation that was used, whether there was land or water related tension and how it had been managed. This table will be useful to address our review of case studies in Fiji analyzed later in this chapter.

Case study	Type of relocation	Land and water resources induced tensions	Relocation Planning	Central to the case study	Research
Biausevu (1875, 1881, 1950, 1983)	Within land boundaries	No tensions mentioned	Community leadership critical Community based leaders are central to the decision- making process Cooperation between the communities → shared leadership, culture and land tenure system	Availability of sites Technology can be helpful for water supply	Campbell et al. (2015)
Solodamu (1970)	Beyond land boundaries (neighbouring village = Natuma)	No tensions for relocates on the new village site/ no formal deed	Negotiations between traditional chief Courts on land issues: customary claims	Compensation mechanism Inclusion of all compensation groups (including inter-generational)	Cagilaba (2005)
Nakiroso (2013)	Beyond land boundaries	No tensions mentioned	Cooperation between Fijian government and Secretariat Pacific Community trainings organized by SPC and govt Community initiated the decision	Cooperation between Customary Land Owners and the Community was central Importance of assessing relocation site as sustainable and safer than origin site	Gharbaoui et al. (2016a)
Vunidogoloa (2014)	Within land boundaries	No tensions mentioned	Community initiated the decision Support from the government	Higher ground available	McNamara et al. (2015)

Figure 38: Summary of case studies that are often cited in the literature on climate change, planned relocation and land tensions in Fiji.

6.7 Discussion on Main Trends emerging from case studies

Pressure on lands as a conflict driver

In the context of migration and relocation, conflict and tensions over lands can occur. According to Loode et al. (2009), there are three types of land disputes: land administration disputes, land tenure and ownership disputes, and disputes over boundaries. Land disputes are between customary landowners, customary owners and the government, or between customary owners and foreign or local investors. In the context of Fiji, Mitchell et al. (2015) found that conflicts can arise between the village site land owners, the head of the *mataqali* (chief of the clan) and the chief of the village. Many conflicts rise in a context of lack or abundance of resources on a land (Barnett 2003). According to Connell (2012), resources are necessary to ensure stability. Some cases of relocation have been a failure because of water and land scarcity (Connell 2012). The loss of access to the sea or the restriction of fishing on the new land for populations that used to live on the seashore might become a source of tension (Edwards 2013). The relocation of Biauvesu proved that relocation is not sustainable when access to water is lacking due to a bad geographical position (Campbell et al. 2015). Research insists on the cultural importance of land and the strong relationship people have with their place in Fiji and in general in Pacific island communities. To that extent there are several concepts related to lands that are paramount to understand this social bound. *Vanua* represents the land and the social system of *dela ni yanu*, the physical embodiment of the land. On *vanua*, each family have *yavu* on which they are building their home, *bure*. As a consequence, relocations impact *vanua*, which can lead to a strong feeling of loss and vulnerabilities from the communities. Ravuvu (1988) describes land as "an extension of the self; and conversely the people are an extension of the land". The loss of lands represents in a way a loss of culture (Gharbaoui et al., 2016b) The feeling of belonging (*vanua*) overlaps issues of tenure relationships on land. The customary land tenure and the western tenure overlap in Fiji, with 88% of lands being under customary tenure. It means that community leaders allocate lands to the community's people according to different criteria. Customary land tenure is based on a collective mindset, where the well-being of the community predominates the individual rights and the collective ownership does not allow individual entrepreneurship or attribution of resources (Gharbaoui et al. 2016a: 10).

Risk of conflict increases with the distance of the relocation

Scholars have observed that the risk of conflict increases with the distances of relocation. Conflicts are less likely to appear when the relocation is within community land boundaries, whereas international relocation may cause a lot of troubles for relocates. While the land tenure might be the same, the capacity of negotiation of the community is lowered. The land tenure might be the same and the capacity of negotiation of the community is lowered. As most of the lands in Fiji are under customary rights, problems can occur if Fijian people relocate to a place with a capitalistic system (Campbell 2008). Finally, there are, in the literature, a few recommendations on land leadership and the way land and water should be managed in the context of planned relocation.

Local leadership within government framework

Scholars emphasize the importance of customary leadership (land owners and chiefs) in the relocation process. Most lands in Fiji are under the authority of a traditional chief who decides who should benefit from the land. Land owners can also participate in this process. Customary chiefs have the power to negotiate with hosting communities and their chiefs. This offers flexibility and facilitates the arrival of relocatees in the hosting community. Origin and hosting community should also be involved in this process. Observations of case studies reveals the need for relocation to be a bottom-up decision (Campbell et al. 2015), meaning that decisions regarding the when, how or where, should start with the community. While the government of Fiji is taking a proactive role, national relocation guidelines are currently still being developed (Gharbaoui et al. 2016). Yet, it shows a forward-thinking approach from the state to improve relocation policy. The state should frame the relocation, but let the community decide the 'when, how and where' (Campbell 2015). According to Mitchell (2016), "customary groups therefore need to be key stakeholders in disaster risk reduction and climate change adaptation decision making".

Funding and compensation mechanism

Observation of case studies also revealed that when the relocation is beyond land boundaries, it should go along with a compensation mechanism for the hosting community. The relocation process represents a huge cost for the community and the

government. Sometimes, international organizations such as UN Habitat are involved in the funding. In order to address a fair compensation, social, cultural, spiritual and even environmental costs need to be taken into account (Campbell et al. 2015).

Providing tenure security

Another observation revealed that the relocatees often meet tenure security issues. In Fiji, most relocatees refer to the lack of formal land deeds. It is important to negotiate land for relocated community and ensuring that this land benefits that community in the long run. According to Mitchell et al. (2016), "tenure security is linked to resilience". It is observed that in order for the relocation to be sustainable, the community and the government should work together to provide coherent tenure security frameworks.

Key areas of controversies

Land tensions related to the relocation process in the context of climate change are still under- studied. As a result, controversies between scholars are low. However, a major area of controversy in observing case studiespresents, on one hand, local leadership as key for sustainable relocations using land tenure as an opportunity to address land acquisition and other challenges associated to land. On the other hand, formal institutions and national entities seem to be the main focus of some authors when addressing solutions to those challenges. In both cases, few authors enounce the stakeholders clearly. Local leadership can refer in some publications to the chief of the village, the head of the *mataqalii* and in others to the village site land owners or the community itself. They do not have the same function and the same knowledge; there is a lack of nuance in defining local leadership in many publications on climate change, planned relocation and land tensions in Fiji. There is also a lack of precision on formal and national stakeholders that should be involved in the process.

Lack of qualitative and quantitative data

There is a significant gap in the current data on conflict management in the context of relocation and more qualitative and quantitative data are needed to assess land conflict related to relocation. Most of the research was based on the available literature. Some studies were carried out using qualitative data from NGOs, state actors or International Organization's interviews. No quantitative studies are available on the subject, except for

one (Mitchell et al, 2016), which was, however, more on informal resettlement in Fiji. Even though qualitative approaches are paramount to understand the kind of interactions within or between communities, quantitative studies could help to make a classification of risk for the future relocations

Lands and water availabilities

Data about the availability of land and water access are paramount to know if relocation is possible or not, taking into account the minimum needs of each community. Such data might also assess if the tensions are a matter of perception or not. Sometimes, scarcity is more a feeling than a reality. Therefore, scientific field surveys assessing the physical risk or the local possibilities for adaptation (before relocation) can turn out to be very useful.

Precision in the terminology

As mentioned in the introduction, relocation and resettlement as well as conflict and disputes are not to be confounded. For better research, a clear terminology is needed. In order to prevent conflict, one should know what type of conflict arises and what it involves. Tensions between communities can be both passive and aggressive, declared or hidden. Scholars should not neglect the local words used to describe the different types of tension and the wide range of local conflict management from dialogue to informal meetings to ritualised ceremonial activities (Loode and al., 2009).

Lack of nuance in the study of the relocation process

Further research should also focus on the different steps of the resettlement processes. Tensions and conflicts can occur both at pre- and post-relocation phases. One should not neglect tensions with communities that want to be resettled but that are not considered for relocation. The role of each stakeholder must be defined at each step of the process for a sustainable management scheme.

Mixed knowledge

Land conflict raises transdisciplinary issues. Most research on the issue derives from Political and Social sciences as well as Geography and Anthropology. There is a need to combine the knowledge and improve the collaboration between disciplines.

Non-western research

Most of the literature comes from westerners and western institutions. Non-western research needs to be fostered for a better understanding of local knowledge of institutions, of the land, as well as of the language and its meanings.

6.8 Overview of past and recent examples of planned relocation in Fiji

This section provides some examples of village relocation in Fiji. It consists of two past cases (Figure 39) and two very recent examples of environmentally-induced community relocations in Fiji with a particular focus on the role that customary land holds in these processes. The final aim was to put those case studies in perspective with the examples of relocation taking place all though the Pacific described in precedent sections in order to decrypt potential similarities or common challenges faced in different period of time and geographical contexts within the Pacific region.
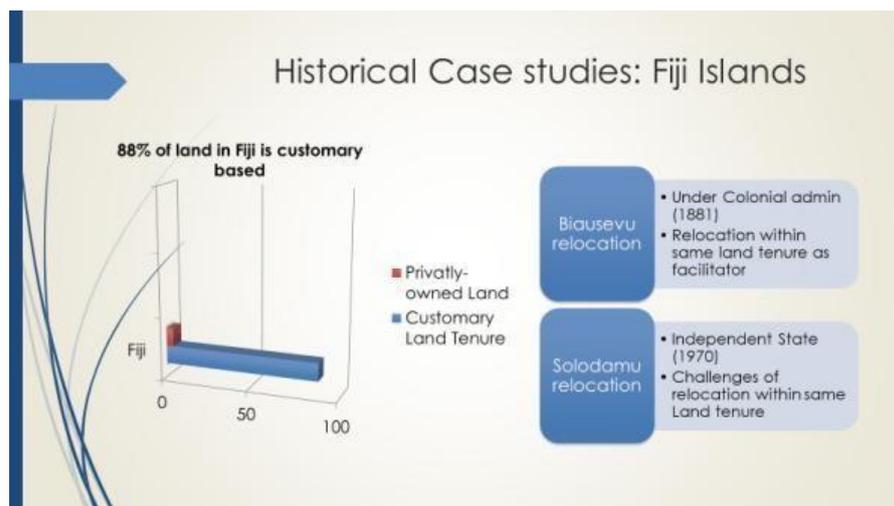
Figure 39: Historical case studies in Fiji as independent states and under colonial administration

6.8.1 Biausevu Village (1881-1940)

The first example illustrates the community of Biausevu, a village of approximately 150 inhabitants located in the South of Viti Levu Island which was repeatedly relocated between 1881 and 1983 by colonial authorities (Campbell et al., 2005). Relocations occurred following devastating environmental events such as tropical cyclones and heavy rain fall. Initial movement started from Tilivaira to Teagane in 1875, then the community relocated to Biausevu in 1881 and in 1940 from Biausevu to Busadule. The fourth relocation in 1983 was to the elevated site called Koroinalagi (Campbell et al., 2005).

The Biausevu community is linked to several sub-clans (*mataqali,*) and the seat of the high chief of the clan (yavusa). The clan's territory extends around the Biausevu River, including some areas inland and on the coast. The land and its people also called the "Vanua" for Fijians (Tuwere, 2002: 33) is the foundation of the traditional order (Tomlinson, 2015) and relates to a communal form of land ownership based on the custom.

The Biausevu community original site was at Tilivaira fortified settlement located inland on high elevation (ridge). Missionaries following "pacification" of the area advised the first move closer to the coast in lower land at the Teagane site that belonged to the original population of Tilivaira. In 1881, floods following a tropical cyclone led the community to move East uphill to the Biausevu site. Almost sixty years later, a tropical cyclone devastated the western part of Viti Levu in December 1939 forcing the community to relocate in 1940 to the Busadule site, struck again by a severe cyclone (Cyclone Bebe) in 1972. The community was again the victim of flooding, with homes and crops drowned by the storm. While struggling to rebuild Busadule, another, less hazardous and fertile site uphill called Koroinalagi was identified as a potential relocation site. Very heavy flooding in the aftermath of Cyclone Oscar in 1983 precipitated the relocation to take place (Campbell et al 2005).

Figure 40 follows the community relocations over 130 years in the Biausevu area where the community relocated several times, within the same clan's land tenure boundaries and a few kilometres from initial site; this may be referred to as "local relocation" (Campbell et al 2005: 39). Relocating within the same land tenure boundaries simplified access to land and facilitated the relocation process. The role of the community leadership proved critical in negotiating land acquisition, while the support of community-based leaders proved central to the decision-making process. As *Biausevu* was the seat of the clan chief (*yavusa*), cooperation and assistance to relocation was provided by the surrounding villages belonging to the same social structure. The cooperation of the other communities assisting in resettlement effort was mainly possible thanks to shared traditions, culture and land tenure systems. This observation supports the hypothesis in the preceding section that relocations commence as close as possible to the community's original home,

subsequently moving further away as closer options become intolerable.

Figure 40: Biausevu Relocation. Initial movement started from Tilivaira to Teagane in 1875, then the community relocated to Biausevu in 1881 and in 1940 from Biausevu to Busadule. The fourth relocation in 1983 was to the elevated site called Koroinalagi (Source: Campbell et al 2005).
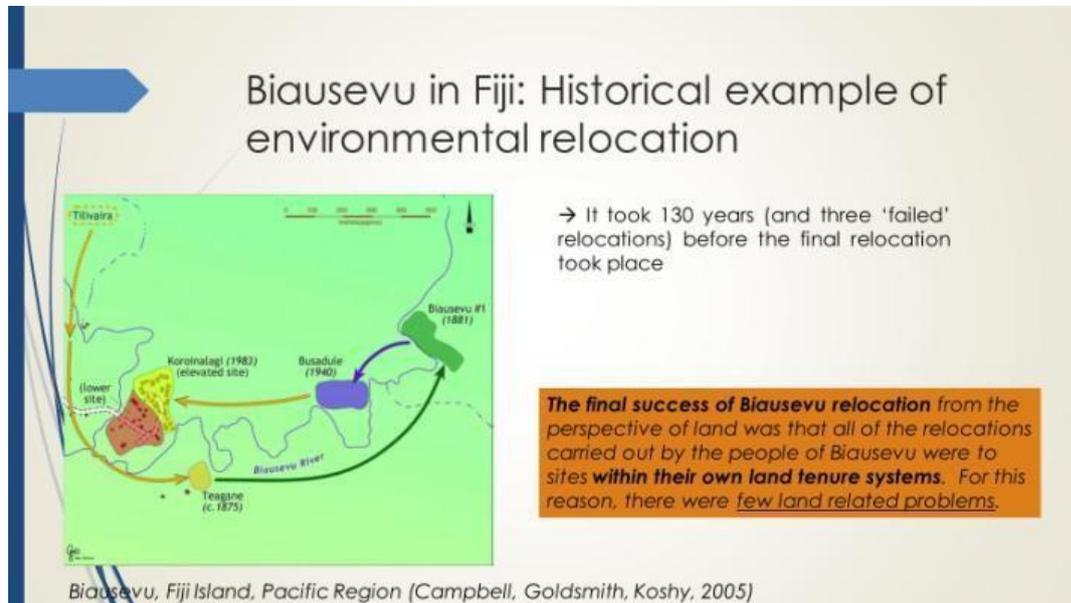
A key lesson to be drawn is the positive effect of relocating within the same land tenure boundaries, which simplified access to land and facilitated the relocation process; this may be referred to as "local relocation" (Campbell et al., 2005: 39). The multiple community relocations over 130 years in the Biausevu area still occurred within the same clan's land tenure boundaries and a few kilometres from the initial site. The role of the community leadership proved critical in negotiating land acquisition, while the support of community-based leaders proved central to the decision-making process. As Biausevu was the seat of the clan chief (yavusa), cooperation and assistance to relocation was provided by the surrounding villages belonging to the same social structure and the cooperation of the other communities assisting in resettlement effort was mainly possible thanks to shared leadership structures, culture and traditions, economic ties and land tenure systems. Relocations commenced as close as possible to the community's original home, subsequently moving further away as closer options became intolerable. However, a number of threats were not alleviated in relocation planning. All attempts were unsuccessful because relocation areas were as hazardous as the origin areas.

Another observation is that all relocation attempts were unsuccessful because relocation areas were as hazardous as the origin areas. The core lesson to be drawn is the importance

of site selection; the relocation site should not be another flood-prone area. In today's context, the PICTs should incorporate climate prediction instruments, land use and environmental data as much possible into such assessments. In addition, the outcomes of this case study suggest the need to consider the role of gender in community relocation. Poor inclusion of gender-specific concerns in the planning process resulted in considerable pressure on women. Daiana Taoba emphasized on some of the issues faced by women in the context of Biausevu relocation with the following observations:

> At the initial stages access is often very difficult and often there are no roads and only rudimentary tracks. Often firewood, water, food supplies and children have to be carried up hill, another burden that often falls on women. {…} there is often a lack of infrastructure such as toilets, electricity and water supply which impact on women's activities. {…} Lack of roads makes transport to markets, often a task conducted by women. (Campbell et al. 2005: 37)

In the context of the Pacific region, women suffer a low status because of their minimal role in relation to land tenure, land management and access (Stege et al. 2008). More attention is merited to develop means to ensure the inclusion of women in relocation decision-making processes.

6.8.2   Solodamu Village (1970)

The second example of relocation took place in the village of Solodamu, composed of about 100 people divided in 20 families and located on a narrow strip of coastal land on Kadavu Island, the fourth largest island in Fiji. Following a devastating storm in 1959 and several tropical cyclones in the 1970s that caused the inundation of their home site (Cagilaba, 2005), the local chiefs decided to relocate the village onto a hill located two kilometres inland. Access to land had to be negotiated, as part of it was owned by the neighbouring village of Natumua. In contrast to the example above, the independent and relatively autonomous communities involved in the Solodamu relocation were not from within the same clan and customary land boundaries. Negotiations to obtain permission to relocate were done according to traditional customs and led by the traditional chiefs (Rokocoko, 2006).

On a positive point, the example underlines how traditional methods of negotiation to obtain permission to relocate conducted between hosting and relocated communities can often allow the relocation to take place smoothly (Rokocoko, 2006). However, the relocation of the Solodamu village has since caused several land access issues with some inhabitants.

Tensions grew over time between the two communities. The host community contested the possibility for the relocatees to extend land limits of the Solodamu new village site. To accommodate their growing population, the Solodamu villagers were compelled to search for other land parcels elsewhere. In addition, the younger generations from the hosting community challenged the relocatees' right to reside in the site of their ancestors, threatening to re-obtain the land through litigation (Cagilaba, 2005). Because land disputes involving customary land are frequent in the region, courts have flexible mechanisms to allow customary claims to be inserted in court cases involving land issues. According to Farran (2011), procedures must accommodate customary claims by allowing "informal" evidence based on hearsay, oral evidence and narratives of genealogies (Farran, 2011).

In the Solodamu example, the claim against the relocatees was based on the lack of formal deed. Such conflict underlines the possibility of inter-generational backlashes between proponents of individual land rights (relying on formal deeds to own land) and proponents of collective land rights (relying mainly on oral ownership). The situation underlines need to profoundly consider the long-term protection of the hosting communities' land rights, as well as compensation for the previous land holders. The inclusion of all stakeholders, including inter-generational groups, is needed to avoid conflicts over land and to ensure the long-term security of tenure of relocatees.

6.8.3   Vunidogoloa, Fiji (2014)

The village of Vunidogoloa, located in the province of Cakaudrove, was relocated in February 2014, the first village to be relocated under Fiji's Disaster Risk Reduction Programme. Several decades of gradual coastal erosion had made the site increasingly uninhabitable. In 2006, the Fijian government, after having been approached by the head of the Vunidogoloa community, confirmed that relocation would take place as an adaptive response to sea level rise. A new site for the village was found 1.5km away, inland and uphill; the process of consultation and negotiation took several years and was finally confirmed in 2012. Attachment to land was a major element that had to be considered in the relocation process. Sailosi Ramatu, head of the Vunidogoloa village observed: "It was not easy for the village community to relocate {…} especially true for older people that had lived in the village all their life, because the land is part of their culture and identity" (United Nations Office for the Coordination of Humanitarian Affairs 2014). The new site, (illustrated in **Error! Reference source not found.**), named *Kenani* (the Promised Land) by the relocated community, was built to have approximately 30 houses, some fish ponds, farms, and a copra drier (Edward 2013, RTCC 2014). It is notable that community members agreed to move to the new site only once the site was almost finalised and all the houses were completed, as it was crucial for the villagers to move all together as a community (Edward 2013).

Source: Hannah Entwisle (Nansen Initiative 2011)[39]

Figure 41: Vunidogoloa Relocation Project (2014)

6.8.4 Narikoso Village (2013)

This example reveals a case of relocation that also took place recently in 2013; the community relocation of the village of Narikoso, a coastal community of 27 households on Ono Island in Kadavu in Fiji. The community was forced to relocate as sea level rise had severely affected the area, despite the construction of a rock seawall shoreline in 1960s. The seawall has been gradually eroded, leaving the village under threat of gradual inundation. In June 2011, the relocation option started being considered as sustainable solution after the Narikoso villagers expressed their will to relocate during the Prime Minister Commodore Voreqe Bainimarama's visit in Kadavu; "While most villages in Fiji were asking for assistance to build sea walls, Narikoso was the only village to request money for resettlement," said the then Kadavu Provincial Council deputy leader, Jesoni Kuruwaya"(Edwards 2013). The first steps of the relocation were carried out by the Fijian government with the support of several ministries, development partners and regional institutions, led by the Secretariat of the Pacific Community (SPC). Special measures ensured active participation from the Narikoso community (SPC, 2014). Furthermore, land tenure and its implications were seriously considered from the first steps of the relocation assessment phase in April 2013; "A series of surveys and site visits were carried out by the RFMF Engineers and consultations continued with the village community on aspects of relocation like land tenure and emotions arising from displacements." (Fiji Government 2013). Furthermore, land tenure and its implications were demonstrably considered seriously from the assessment phase, following which a list of recommendations was drawn up in order to facilitate relocation (Pareti, 2013). Among the considerations: Narikoso villagers are furthermore involved in community trainings conducted by the SPC and government experts around integrated farming systems, plant propagation and sustainable land (SPC 2014). The case provides an interesting example of building villagers' capacities to adapt to climate variation and natural disasters, in recognizing that land management and food security are strongly interrelated.

6.9   Lessons learnt from examples of planned relocation in the Pacific and Fiji

By putting in perspective some examples of planned relocation in Fiji and cases of relocation all through the Pacific in the previous sections (4.3) including Kiribati, Tuvalu, Solomon Islands and PNG, we have identified in this section some trends by drawing out some commonalities and differences and whether or not these can be generalized across the Pacific. These lessons could be used to inform future relocation processes in the Pacific. A number of positive outcomes merit repetition while certain risks to sustainability of these strategies can be avoided to the extent possible. Lessons learnt below will support the main purpose of this thesis that aims to conceptualize planned relocation as an adaptation strategy to climate change taking a social and policy perspective that would also address challenges associated with land tensions in the Pacific region.

Centrality of attachment to place and customary land tenure in the relocation process

The cases demonstrated the extent to which land tenure and land management are central to relocation processes, in both colonial and post-colonial contexts. Customary land tenure and respect for traditional negotiation processes represent both the key to planning and executing a successful relocation as well as the primary risk to the sustainability of the project.

The example of Fiji provides a reflection firstly on how customary land tenure systems and legitimate traditional authorities are considered throughout the relocation planning and implementation processes. Secondly, it seeks to propose a reflection on how to optimize land governance and tenure security and create the conditions for a more inclusive environmental relocation framework adapted to the local customary land tenure governance mechanisms. As a pre-condition for our primary recommendation, we posit that customary authorities and institutions are legitimate governance actors. In the Pacific region, these leadership structures and traditions form their own governance mechanisms that may be external to those of the "modern" state and legal systems (FAO 2002; Tobin 2008; Farran 2011). Strategies addressing climate change adaptation in the Pacific should include both state-based governance mechanisms combined with customary non-state institutions. In order to combine those two forms of governance, it is necessary to include

traditional authorities in the relocation decision-making process. This cannot be done without a deep respect for their view of the world, a profound understanding of how they represent the climate and migration within their belief systems and how traditional knowledge directly addresses those questions.

Customary land tenure systems and governance structures are sometimes presented as constraining factors. As a social system undermined by contemporary government-supported economic and social developments in the context of a globalized world, customary tenure presents barriers to development, cultural and economic integration, citizenship and, implicitly, to the ability of customarily based communities to adapt to 'modern' life, its challenges and its opportunities (Fien, Sykes & Yencken 2003: 173). Customary land systems are associated to community cultural cohesion and social norms could therefore potentially be constraints to adaptation in the Pacific region; constraints to adaptation defined as "factors that make it harder to plan and implement adaptation actions. {…}. Types of constraints to adaptation include {…} social norms, identity, place attachment, beliefs {…}" (Klein et al. 2014: 923).

On the other hand, customary relationships and systems may offer flexibility and solutions to face contemporary challenges. Customary partners provide safe refuge and a support system in case need, in the aftermath of a natural hazard, for example. Land tenure systems may also provide greater flexibility to approach land negotiations when occurring within the same system of tenure, by embedding traditional chiefs and landowners at the centre of the decision-making process (Gharbaoui & Blocher 2016a).

Loss of culture and community cohesion is a key challenge in planned relocation

The concerns illustrated above are of particular importance for community cohesion in communities governed by customary leadership and land ownership structures. The relocation of whole communities may be more likely to preserve community cohesion and cultural integrity, implementation of relocation plans is challenging and costly (Bronen & Chapin 2013; Lopez- Carr & Marter-Kenyon 2015). Our analysis shows that loss of culture are unavoidable results of relocation if customary land tenure is not considered at very early stage at the planned relocation process. Considering the positive aspects of migration as 'way of life' for Pacific nations as stated in the 2008 Niue Declaration, includes also protecting community resilience that is part of the Pacific

cultural heritage. Opportunities to preserve cultural cohesion despite fundamental changes exist when disequilibrium of societal structures adapt by coming back to equilibrium through self-regulation mechanisms as part of cultural heritage (Campbell 2010).

Traditional channels central in the process of land negotiation

A key argument presented in the case studies is that traditional channels - with the support of the government, at the numerous relevant levels, and impartial land experts - must be central in the process of land negotiation if there are to be positive relocation outcomes. Sustainable relocation is more likely achieved while land-based tensions related to loss of cultural heritage are likely to be limited and better managed when customary land owners and chiefs are at the first line of negotiations over land with hosting communities and chiefs (c.f. Gharbaoui & Blocher 2016a). We suggest that inserting customary leadership and governance structures (i.e. land owners and chiefs) at the center of the relocation process may provide a promising avenue towards overcoming challenges associated with loss of land and cultural heritage.

Relocation as a last resort solution

In all case studies including Fiji, the crucial role attachment to place holds in the relocation process is central. The type of land tenure and ownership is therefore central in planning for relocation. The Niue Declaration reaffirms this principle and the Pacific values around attachment to land and cultural identity. In the case of the government supported Manam relocation, villagers have expressed their strong attachment to land by keeping a strong bound with their home land. The adverse effects of climate change are likely to increasingly incite islanders to migrate to cope with threats to their livelihoods however, risks associated with relocations are well established, and it should therefore be considered as a last resort strategy. This is particularly the case in the Pacific where the communities have shown a strong will to remain *in situ* has been reaffirmed in the Niue Declaration (Barnett & Webber 2010; UNHCR 2014; Lopez-Carr & Marter-Kenyon 2015).

Funding mechanisms in place for the relocation is critical

Whether the relocation is led by the State, the community or external stakeholders have

implications in terms of funding. Relocating beyond land boundaries implies a compensation the hosting community and land owner(s). The relocation process represents a huge cost for the community, the government or external stakeholders (sometimes, International organizations such as UN Habitat or regional organizations such as European Union or the Secretariat of Pacific Community -SPC- are involved in the funding). However, it is crucial to underline that along with financial costs; social, cultural, spiritual and even environmental costs need to be taken into account.

Because land disputes involving customary land are frequent in the region, courts have flexible mechanisms to allow customary claims to be inserted in court cases involving land issues. According to Farran (2011), procedures must accommodate customary claims by allowing "informal" evidence based on hearsay, oral evidence and narratives of genealogies (Farran, 2011). The relocation outcomes seem to vary in part according to the way relocation has been approached and by which stakeholder. Funding the relocation process is a crucial aspect of these outcomes and cases such as Carteret relocation clearly reflects on issues related to the lack of funding. This is particularly the case in community driven relocation that is undertaken in some cases after a lack of involvement and funding from the State. The following chapters will provide an analysis of case studies in Fiji and will attempt to shed the light on more specific characteristics tied to each category of relocation (State-led, Community driven or externally funded).

Relocating to safe sites

On the other hand, the case studies and the literature demonstrate that care needs to be taken to avoid placing the community somewhere at a similar, or even greater, level of exposure to natural hazards. In today's context, the PICTs can incorporate climate prediction instruments, land use and environmental data as much as possible into such assessments. Historical cases, such as in Biausevu, showed that it might take years to be able to achieve the sustainable resettlement of communities. Relocation as a strategy to adapt to climate change must therefore begin early and in concertation with all implicated communities. In the cases of Narikoso for example, the relocation was initiated by the affected communities that have approached the Fijian government asking for relocation support. It was also the case for the village of Vunidogoloa located in the province of Cakaudrove that was relocated in February 2014 following several decades of coastal

erosion that gradually made the site inhabitable. After a lengthy consultation and negotiation process, a site 1.5 km inland and uphill was confirmed in 2012. Here again, the relocation was initiated in 2006 by the head of the Vunidogoloa community that requested support to the Fijian government. There is an urgent need for Pacific governments to anticipate and identify sites most "at risk" in their country in order to start planning relocation as early as possible.

Historical perspective on planned relocation is key

Past examples of planned relocation include examples from Fiji in colonial and post-colonial context. Both the literature and case studies illustrated that for generations Pacific Island communities' traditional adaptive strategies, culture and practices have included retreating from coastal zones following extreme environmental events. One can point to a number of cases of

significant out-migration, as well as environmentally induced partial and staggered community relocations, which exist outside of "normal" migratory patterns. Furthermore, many traditional risk management and response strategies have been lost in the post-colonial era, due in part to today's pre-eminence of "modern" strategies. This loss also applies to strategies of risk-sharing with traditional trading and kinship partners, who are now found across artificial international borders. It leaves exposed communities and specific vulnerable groups with fewer capacities to respond to extreme weather events and the (gradual but permanent and assured) loss of habitable and arable land (as in the case of land subsidence, volcanic eruptions, as well as, for low-lying coastal areas in particular, sea level rise, coastal erosion, saltwater intrusion, and frequent or recurrent meteorological hazards). The result may be the loss of shared social and cultural identities, spaces and meanings; the creation of bifurcated, altered or hybrid identities. Those who migrate find themselves in tension with those who remain and are treated as outsiders or deserters. Some migrants remain anchored to the physical source of a shared heritage, contributing to barriers to integrate elsewhere and perpetuating deep attachment to a literal home that may be disappearing.

Cooperation between relocating and hosting community

The importance of cooperation between the relocating community and the customary land

owners of the resettlement site stands out among the points for emulation in the future. Cooperation, collective rehabilitation efforts and longer-term community cohesion are often an extension of existing clan ties or trade relationships. Overall, the sharing of similar institutions of leadership and social structures between origin and destination communities served to facilitate the relocation process. However, conflicts in similar cases are not uncommon. The existence of multiple legal and customary systems today creates vagaries that complicate the decision-making processes around customary land claims. Caution must be exercised when undertaking land negotiations, first to ensure a peaceful process and second to give respect the entrenched practices. Doing so will add to the security of the relocated community's position. Ultimately cooperation as well as integration of communities are possible and can be facilitated through traditional ties. Communities' needs must be more implicated in the post-colonial current context that venerates customary land, given the comprehensive and multi-faceted consideration of all parties, in concertation with all implicated communities and with consideration to environmental and inter-generational effects such as young generations questioning collective land rights of their ancestors. This reality of customary relationships is important to take into account in promoting rights and sustainable development in the region (Campbell et al., 2005). Hosting communities should be studied as much as the community of origin. Researchers must integrate the impacts of movement on the adaptive capacities of both the communities of "origin" and communities of "destination" in their assessments. Lessons from PNG provide an interesting counterbalance to the research carried out in Fiji, primarily due to the trajectory of approach. In order to fully represent the role of mobility (broadly encompassing displacement, migration, relocation and resettlement) as a strategy to adapt to the nefarious impacts of climate change, researchers must integrate the impacts of movement on the adaptive capacities of both the communities of "origin" and communities of "destination" in their assessments (Gemenne & Blocher 2016, 2017). The analysis provides practical insights to substantiate this conceptual foundation. The research carried out in PNG was primarily from the viewpoint of communities originating from Manam Island, over ten years after their evacuation due to a volcanic eruption and ensuing displacement. While this case supports the thesis that integrating traditional leadership structures into relocation and resettlement planning is key, it furthermore shows clearly the limits to this approach under certain

conditions. The research was primarily aimed at understanding what adaptive measures have the Manam islanders been more or less able to employ successfully in the context of environmental stress before and since their relocation and displacement. To explore this question requires comparing the strategies of the islanders, a diverse collection of community groups themselves, to those of the "host" community (customary land owners), as well as those that were transferred or are shared.

Strategies combining state-based and customary non-state institutions are key to address challenges associated to land in planned relocation

Strategies addressing climate change adaptation in the Pacific should include both state-based governance mechanisms combined with customary non-state institutions. In order to combine those two forms of governance, it is necessary to include traditional authorities and affected communities to the decision-making process on relocation. Post-relocation vulnerability associated to land-based conflicts, loss of customary land systems and associated culture need to be considered by decision-makers when planning for relocation as adaptation to climate change in Fiji. It is crucial that more efforts and strategies are developed by the government to ensure the participatory and leading role of customary authorities, local landowners and land experts in the relocation planning and along the relocation process from conception to finalization including monitoring and follow-up. Flexible approaches to land governance are key for dealing with security of tenure. Developing policies optimizing registration of customary lands would be an example of measure that would help to protect the land rights of communities forced to move as result of climate change. Unsecure tenure and issues around customary land titles and ownership including unclear villages boundaries demarcation can increase the vulnerability of relocatees and provide fertile ground for post-relocation land-based conflicts.

Flexible approach to land governance in planned relocation

As we demonstrate above, a central constraint in decisions to relocate is strongly linked to the potential for land-disputes at the new site (Mitchell et al. 2016: 60). Participatory approaches to relocation planning are central to overcome this challenge and "disputants are more likely to engage positively with dispute resolution processes, when they have participated in their design" (Constantino & Merchant 1996: 66). Hybrid systems based

on both Western and traditional approaches of conflict prevention in Melanesia are increasingly recognised and encouraged to engage with conflict management. Research in conflict management systems is mostly not inclusive of customary processes but mainly uses Western style processes, however, scholars suggest that "customary and Western systems can work together to effectively manage land- related conflict" (Loode et al, 2009:63). In modern-day governance of Pacific Islands and Territories, the administrative boundaries established by nation-states rarely correspond to those of customarily owned and demarcated land. Insecurity of land is often very high following displacement, while land grabbing and eviction has been shown to among the primary fears of affected peoples in the region (Mitchell et al., 2016). Large-scale and long-term funding required for a project such as the Manam resettlement may not always be accessible.

Clear government policies that combine both modern and traditional approaches, informed by regular and extensive consultation with affected communities, are paramount. Before disasters, risk reduction and management strategies must target not only physical safety but must also place emphasis on community cohesion and the preservation of Pacific people's identity, culture, social and belief systems. Following and in anticipation of displacement risk, protection and assistance strategies should be sensitive to land tenure boundaries. In many cases, they should be the main borders of relevance when planning for local integration, temporary relocation of communities, and longer-term resettlement. In addition to avoiding loss of cultural heritage as well as conflicts associated to land ownership, this direction will imply much-needed sensitivity to community- based leadership and governance structures necessary for buy-in and the long-term success of any solution to displacement.

In the context of the Pacific, and potentially other customary land tenure systems, protecting and assistance policies should place emphasis on community cohesion and the preservation coherent with customary systems. Given the existence of customary boundaries that cut across modern day states, regional cooperation may be a key fit-for-purpose approach. UN-HABITAT and others in the international community have developed guidance on frameworks for land governance that can be turned to, as they consider the combination of the spatial, legal and institutional frameworks and include key principles such as Good land governance preventing bureaucratic barriers.

6.10 Conclusion

This chapter draws a number of conclusions on how to rethink and reconceptualize planned relocations in the context of climate change and its impacts.

The variety of case study chosen in Fiji and other Pacific countries approach the question from different vantage points and, in so doing, expose complementary dynamics that provide insight into the longer-term feasibility of relocations in the context of deeply culturally embedded customary land tenure regimes. The present chapter was useful to provide background information on the particular context of Fiji. The comparative analysis presented in the concluding chapter also provided a series of trends and lessons useful to conceptually frame planned relocation as adaptation strategy to climate change and the role land holds in that process. Both are key to address the next chapter on the field study. The field study will provide data on some recent cases of planned relocation in Fiji at pre-and post-relocation phases in order to add more scientific variables to our conceptual framework on planned relocation. As will be further developed in the concluding chapter 9, the lessons drawn above will be used to discuss planned relocation taking Fiji as case study. Fiji is taking major steps in setting up adaptation policies, which include finalizing a relocation guideline in efforts to ensure cooperative and comprehensive treatment of the social, economic and environment issues of the communities concerned (Edwards, 2013; Pareti, 2013). The last chapter of the thesis will assess whether those guidelines are inclusive of lessons revealed in our study on planned relocation and challenges associated to land. The Fijian government is also working together with the Melanesian Spearhead Group to develop appropriate strategies to address environmentally induced migration at regional level (Fiji National report, 2013). As seen in the present chapter, we have witnessed an increasing number of planned relocation of villages as result of climate change in Fiji. Amongst those, *Matawalu* and *Tukuraki* relocation, the case studies that will be the object of our next chapter devoted to the field study, are particularly interesting examples as it provides data at both pre- and post-relocation phase while addressing challenges underlined in our review of examples of planned relocation (Chapter 4 and 5) and lessons identified in our comparative analysis. Lessons from case studies underlined that participation is paramount and flexible approaches to land governance and the concept of borders are key. Locally-based

expertise and traditional knowledge are valuable sources of information to develop strategies to address displacement, or, in the case of many Pacific communities, to inform planned relocations. Therefore, perceptions from the affected community, hosting community, customary chiefs and land owners will be the main focus of our field study as they are central in a comprehensive study of land tension in the context of planned relocation in the Pacific that will be the object of the next chapter.

CHAPTER 7
Capturing communities' stories on Climate Change, Planned Relocation and Land Tensions in Fiji

7.1 Introduction

The previous chapters have provided a series of lessons and reflections on planned relocation in the Pacific and Fiji with a particular emphasis on challenges associated to land. This analysis was useful in providing a contextual background to the current chapter exploring data collected through field study in Fiji in 2017. The impacts of cyclone Winston in 2016, cyclone Pam in 2015, cyclone Evans in 2012 and cyclone Zoe in 2002 have confirmed that intensification and increased frequency of disasters is a reality in Fiji. The destructive impact of cyclone Winston was decisive in making planned relocation a central adaptation strategy in Fiji. In the aftermath of the disaster, the Fijian Government has decided to carry intensive vulnerability assessments for future sites to be relocated and develop national guidelines on relocation. Today, there are 38 to 45 projects of relocation being implemented in the state. As previous chapters have revealed, Fijians have a strong feeling of belonging to their lands that are managed through a traditional customary land tenure system. Therefore, tensions related to land might easily arise during the process of relocation. Managing these tensions is of paramount importance when it comes to organizing long-term relocation. By exploring some of those cases of planned relocation on the ground, our field study aims to provide more data by capturing communities' stories on this parameter.

The present chapter 6 will firstly (1) present the villages studied through firstly; an overview of the selection criteria used and, secondly, by describing the sites studied, how they have been impacted by climate change and more details on the relocation process. Then, the data collection will be presented in more details (2) including the methodology used and the main objectives. Finally; the community field study results (3) based on semi-structured, narratives interviews and questionnaires with customary leaders, affected communities, and local land owners will be presented revealing key concepts emerging from the study that will be discussed and analyzed in chapter 7.

The first criterion for selection of villages studied was the type of environmental events, in an effort to explore analogues of forecasted outcomes of climate change, namely: flooding, coastal erosion, sea level rise, and tropical cyclones. Villages were selected according to the following criteria: Each site was affected by at least one rapid-onset environmental hazard (flood, storms, hurricane) attributed to climate change or slow-onset environmental change (sea level rise, saltwater intrusion, land degradation). The choice of Fiji is also based on the facilitated access to affected communities all relatively accessible despite the environmental impacts. Secondly, Fiji presents the most important track of environmental relocation in the Pacific that is also well documented. The villages selected for the semi-structured interviews at community level were spread out across various location in Fiji and included villages at different stages of the relocation process as well as sites affected by climate change at different degrees. Fieldwork was based on the observation of examples of climate-induced community relocation that recently took place in Fiji (Matawalu, Tukuraki) and some that are either ongoing or will take place in the future (Lami, Suvavou et Qauiya). Thirdly, Fiji was also selected because customary land tenure makes up 84 % of the total land area ideal to study the relocation process and the role customary land tenure holds in it. The choice of villages was based on the fact that customary ownership was prevailing within the community. One of the main purpose of the fieldwork was to understand the context in which relocation took place, how customary land tenure has been considered in this process, whether customary land tenure provided barriers or facilitated the relocation process, whether land security was achieved at the post-relocation phase, whether land-based tensions were still major in post-relocation vulnerabilities and what is the perception on water tensions before and after relocation. Finally, *Matawalu* and *Tukuraki* villages were chosen as they were accessible sites at different stages of the relocation process and engaging different stakeholders. The choice of sites was also based on the Fiji Second National Communication to the UNFCCC including potential relocation and a "list of vulnerable communities per sector affected". The villages of *Suvavou, Lami* and *Qauiya* were present in the list and foreseen for potential relocation in the future. Those three villages are also interesting as they presented challenges associated to land and water access. Also, they reflect the reality of many vulnerable sites threatened by climate change in Fiji but not yet considered for relocation.

7.2   Villages and Communities Studied

Fiji, spread over 332 islands, is today highly threatened by climate change through change in intensity and frequency of environmental disasters and accelerated sea-level rise (Gravelle & Mimura 2008). Most urban areas in Fiji are located along the coastline where communities will be increasingly vulnerable to rising sea levels and coastal erosion. Flooding is becoming a persistent issue mostly due to the intensity and frequency of tropical cyclones. Storm intensification is becoming increasingly visible across the Pacific.

On February 20, 2016, the Cyclone Winston (Figure 42), classified as a "Category 5 tropical cyclone" was recorded as the strongest storm in history for Fiji and one of the most powerful storms in the Pacific Islands region, more intense than Cyclone Pam in 2015 and Cyclone Zoe in 2002 (Shultz, Cohen, Hermosilla, Espinel & McLean 2016 :41).
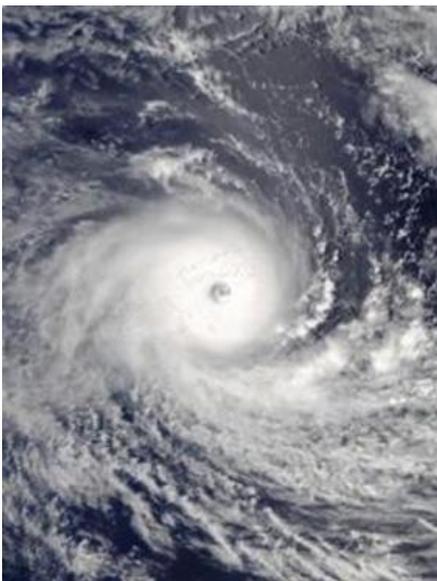
Figure 42: Cyclone Winston impacting the Republic of Fiji, February 20, 2016 (NASA 2016).

The consequences of Cyclone Winston on communities already threatened by the intruding sea became an increasingly important issue in Fiji. The cyclone made communities more vulnerable and exposed, forcing many to leave to safer grounds. In the aftermath of the cyclone Winston, at least 63 additional villages were considered as « in need to relocate » following the assessments carried out by the iTaukei Affairs Board, Lands and Mineral Resources Department, Water Authority of Fiji and Fiji Roads Authority officials (Bolatagici 2016).

The Fijian government has identified 830 coastal and riverbank communities at risk of climate change including 45 communities that will need to be relocated within the next decade (Chandra 2015). Some of those communities including *Matawalu, Tukuraki, Lami, Qauyia* and *Suvavou* villages have been approached for the field study that aims to capture communities' stories at various stage of the relocation process.

7.2.1   Matawalu, Ba province, Fiji

The Matawalu village is located in the district of Lautoka in the Ba province, Western Division of the main Island of Viti Levu (Figure 43, Figure 44 and Figure 45). Matawalu has a long history of river flooding and was severely hit by Winston cyclone in 2016 that left some homes completely inhabitable.

Figure 43: Matawalu village, Located in Ba region, in Western division of the main island of Viti Levu, Fiji (Google 2018)

Figure 44: Matawalu village, located in the Lautoka district in the Ba province (Google 2018)

The Matawalu community aims to relocate their village uphill by 2020 and, for that purpose, people of Matawalu have developed their "Five Year Development plan" (2015-2020) funded by UNDP's Pacific Risk Resilience Program (PRRP)[42]. The plan focuses on seven areas, including

> "{…} improving flood prevention; sourcing water with a borehole and tanks
> and mineral water sources; community health; establishing an evacuation
> center; developing roadside market stalls; youth workshops and awareness,
> and finally the planned village relocation." (UNDP 2014).

Figure 45: Matawalu village located at the intersection of Kings Road crossing all of Lautoka and Johnson Road in Lautoka. (Google 2018)

7.2.2   Tukuraki, Ba province, Fiji

The village of Tukuraki in Ba, Viti Levu (Fiji main Island, see Figure 46 - Figure 47) had already been hit by a landslide after heavy rains in January 2012, destroying 50 per cent of the village area and village access to houses, fresh water resources and roads. In December 2012, Cyclone Evan (Category 4) destroyed parts of the remaining village that were not destroyed by the previous disaster (Figure 48).

Figure 46: Tukuraki village origin site, North-East of Koroyanitu National Heritage Park in Lautoka district, North-West of Viti Levu Island, Fiji (Google 2018)
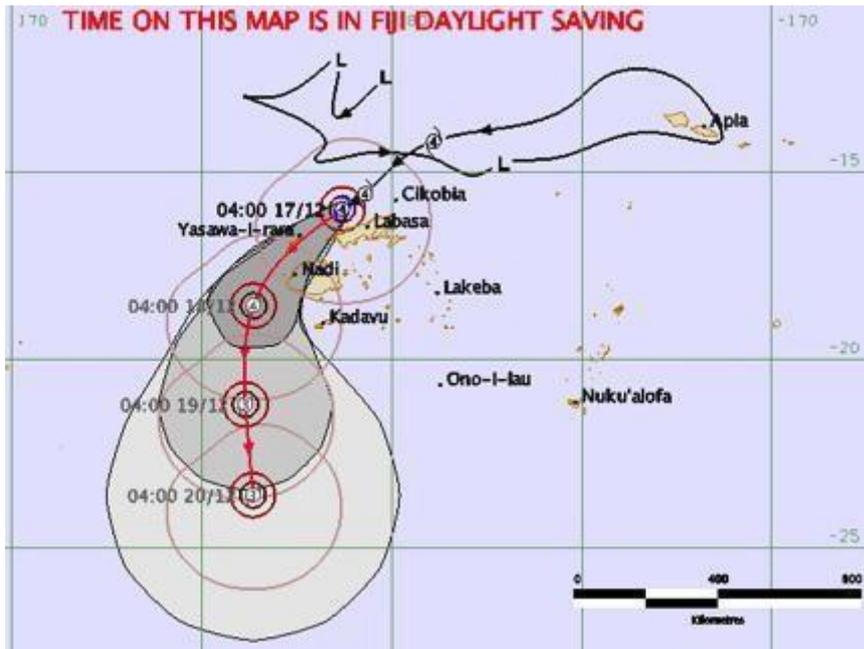
Figure 47: Category 4 Cyclone Evans trajectory; passing near the Ba province, December 2012 (ABC News 2012)

The Tukuraki village Chief, *Simione Deru* explained that a temporary site was allocated at this time for the affected community that moved to a temporary shelter, but the Fiji Government labeled the village as subject to future permanent relocation of the whole village due to the risks associated with natural hazards and landslides.

Figure 48: Destructive landslides in Tukuraki Village (Photo: Janet Lotawa).

Still recovering from previous disasters, the Tukuraki village was again struck, this time by the devastating Cyclone Winston (category 5), which forced the Tukuraki community to take emergency shelter in nearby caves during the cyclone.

Figure 49: Tukuraki villagers take refuge in cave shelter after devastating landslides (Photo: Janet Lotawa).

Fiji's National Disaster Management Office (NDMO) is in charge of the relocation, which is funded in part by the European Union through the Building Safety and Resilience in the Pacific Project (BSRP), supporting the Fiji NDMO to reduce disaster impacts, and is implemented by the Pacific Community (SPC).[43]

Figure 50: Tukuraki new relocation: site inauguration marking the start of the village reconstruction (Photo: Fiji's National Disaster Management Office).

7.2.2.1 Lami, Suvavou et Qauiya, Rewa province, central division

The Fiji Second National Communication to the UNFCCC including potential relocation and a 'list of vulnerable communities per sector affected' was used to identify the villages of *Suvavou, Lami* and *Qauiya* present in the list of 'vulnerable to water issues' and foreseen for potential relocation in the future (Figure 51).

Vulnerable Communities	Sector
Suvavou	Disaster, Risk, Water, Coastal (relocation?)
Lami	Disaster, Risk, Water, Coastal (relocation?
Qauiya	Disaster, Risk, Water, Coastal (relocation?

Figure 51: List of vulnerable communities per sector affected in the The Fiji Second National Communication to the UNFCCC including potential relocation.

Suvavou, Lami and Qauiya villages went through a vulnerability assessment from the government in 2003 that identified the sites as potentially needing to be relocated. The sites were also assessed as particularly vulnerable to disasters, risks, water and coastal issues. Different land tenure systems prevail in each village. Informal agreement with land owners is prevailing in Quaiya, in order to occupy and build on the land. There is a different situation in Suvavou village, where the settlement also belongs to the land owners.

Figure 52: Lami Village and nearby settlements (Orcheton 2015).

Lami village is subject to less coastal flooding than the other two villages as it is located higher on a hill and is more isolated from the coast with more established infrastuctures. There have been tensions about the land ownership of Suvavou and Lami villages. The village of Suvavou was relocated by the colonial government, which moved the inhabitants from Nasese to its current location. Therefore, discussion on land ownership of Lami and Suvavou villages make land management more complex, as arguments on who owns the land, Lami or Suvavou people, are taking place.

7.3   Capturing communities' stories

Semi-structured and narrative interviews were undertaken in September 2017 with the aim to gather qualitative data on Matawalu and Tukuraki planned village relocation and land tensions associated to it. The "middle-ground approach" to relocation (Gharbaoui, Blocher 2016) (see chapter 2-3 on literature review and methodology) was used as framework in order to understand the role of customary chiefs, land owners and the

community in the relocation process. In-depth interviews with Matawalu's traditional customary chief revealed that negotiation of land with the hosting community has been initiated at early stages of the relocation process including preliminary negotiations between Matawalu customary chief (and village headman), *Josaia Rakoto* (Fig. 4) and the land owner of *Kavula*, the future hosting site. Semi-direct interviews were also conducted with the people of Matawalu (*n* = 18).

Figure 53: Matawalu customary chief, Josaia Rakoto, and his family (Photo: Dalila Gharbaoui).

Most Matawalu villagers are positive about moving their houses to the new site of *Kavula* that is located uphill and less than one kilometer away from the site of origin. The village headman, *Josaia Rakoto,* explained that UN-Habitat has recently informed him that they will be funding the relocation of 25 houses. According to the village headman, UN-Habitat has requested him to negotiate the land that will be used for relocation.

The Matawalu village chief is also the customary chief of the nearby land of *Kavula* (Figure 54) which facilitated the negotiation process with the *Kavula* land owner. The

yaqona (price) was then traditionally presented to the *Kavula* community asking for their approval to allow the future relocation of 25 houses of some of the affected members of Matawalu village. The Matawalu village headman indicated that the negotiation over the new piece of land was facilitated by following the traditional protocol. The traditional protocol used was a good vessel that allowed smooth discussion on relocation. The prior good relationship between the *Matawalu* customary chief and the *Kavula* landowner was another factor that simplified the process. In fact, the *Kavula* landowner and community members also belong to the same *Mataqali* (sub-clan) as the Matawalu villagers. This is an important aspect to consider when planning for relocation as it has significantly simplified the land negotiation process according to the Matawalu customary chief that underlined « *As I know that native Fijians honour traditional agreements, I believe that we will not face any problems with the Kavula landowner and community in the future* ». However, the negotiation resulted in a compromised agreement as Kavula landowner and community have agreed to share their land but only if the people of *Kavula* can occupy 12 of the 25 houses to be built, leaving the *Matawalu* community with only 13 houses to be rebuilt on the new site.

Figure 54: Kavula site, future hosting site of the Matawalu village (Photo: Dalila Gharbaoui).

The Matawalu village headman is now facing the challenge of selecting the households to be moved within his community. As he perceives it, his choice will be based on his own assessment in consultation with the community with an attempt to determine the

most vulnerable households that had also proved to be hardworking, reliable and who have contributed well towards the village. At the same time, villagers of Matawalu are discussing which households are the most vulnerable, this selection process is raising tensions within the community and affecting the community cohesion as only one household in the eighteen interviewed did not express the need to relocate and would rather have their house rebuilt a few meters away from their current house. Most other villagers feel threatened by flooding and have expressed that relocation would be the only way to provide their families with sustainable options in the future as protecting the village by building seawalls would be costly and not a viable option according to them (Figure 55).

Figure 55: Palm trees described by Matawalu villagers as « seawalls » protecting their homes from flooding by the nearby river. Piles of wood are also regularly added by the community to protect their homes (Photo: Dalila Gharbaoui).

Figure 56: River bordering Matawalu village and causing flooding after heavy rains (Photo: Dalila Gharbaoui).

Figure 57: Matawalu village coastline impacted by flooding by the bordering river (Photo: Dalila Gharbaoui).

An important aspect, as underlined by people of Matawalu, which made the prospective relocation to *Kavula* a particularly positive move is the possibility of keeping easy access to their site of origin as well as retaining the ownership of their current houses and farming

lands. For some villagers interviewed, this would improve their current living status as a house can sometimes include two households in Matawalu, the relocation would allow each family to reside in one separate house and share the new house in *Kavula* only when the Matawalu home becomes unhabitable.

This case study provides some key insights on so-called "staggered" relocation, it reveals that relocating only a portion of the community can be highly problematic and can create tensions affecting community cohesion. Authors such as Zahir, Sarker and Al-Mahmud developed a statistical relocation approach inferring that relocation should target a selected portion of the affected community whilst proposing a local adaptation approach for the rest of the affected people (Zahir et al. 2009: 226–350).

In the case of Matawalu, the decision on households to be relocated has not been taken yet and it is not clear whether UN-Habitat would support this selection process. However, this selection seems to be already highly problematic as it can threaten cultural and social cohesion, at the core of the community's collective structure.

At the time of interviews, the village chief and people of Matawalu have clearly expressed the need for UN-Habitat to be involved in the vulnerability assessment, in the hope that the challenging decision of who will move and who will stay will be made in a more "scientific" manner. The chief and the villagers have also underlined that UN-Habitat have contacted the village headman by phone without even once coming to Matawalu in person. This lack of communication is creating more complexity in the relocation process as the lack of clear and regular information is leaving the village with a lot of uncertainties and questions regarding their future relocation. For that reason, both the customary chief and the affected community have stated that the timeframe and the next steps of the relocation process are not clear to them. They are urging UN-Habitat to be involved in the selection of vulnerable houses in order to avoid internal tensions.

Figure 58: Matawalu vilage member and his son in front of a village house damaged by flooding. He particularly insisted on meeting in person people from UN-Habitat to tell them about the will of the community to have a vulnerability assessment carried-out by external stakeholders in order to avoid internal tensions within his community. (Photo: Dalila Gharbaoui).

This case study provided key information on how tensions about land can emerge within an affected community despite using a « middle-ground approach » to relocation, placing traditional chiefs and the affected communities at the center of the relocation process and empowering them early on in land negotiation. Indeed, in the case of Matawalu, the customary chief and the people of Matawalu described pre-relocation tensions within the community mostly due to the lack of clear communication and information on the relocation process from external stakeholders (UN- Habitat). It is therefore critical that the « middle-ground approach» to relocation is undertaken along with regular and clear communication, information and support from external stakeholders. Regular and personal meetings should be organized where possible in order to demystify the external actors to the community and provide on the ground information to the stakeholders. The case of Matawalu relocation also shed the light on the negative impacts of staggered relocation and the complexity of maintaining community cohesion when only a portion of the community is relocated as already underlined by authors such as Campbell (2010) arguing that "community disarticulation is arguably the most complex part of the displacement and reconstruction process". This case study provides an overview of those challenges specifically at a very preliminary stage of the relocation process. The centrality

of social aspects of relocation was already emphasized by Perry and Lindell (1997) reaffirming that "special attention should be given to social and personal needs of the relocatees {…} (and that) social networks need to be preserved" and Lieber (1977) that developed a historical critique of staggered relocation. The preservation of community cohesion in relocation is particularly crucial in the context of the Pacific region (UNFCCC 2005: 14) and it is critical that external stakeholders ensure that this element is central in any relocation planning, including associated risks resulting from the lack of information and communication. Once the relocation process is initiated, there is a strong need that all stakeholders involved in the process regularly follow-up closely on the village's needs and support the community by carrying out vulnerability assessments if necessary, in order to avoid pre-relocation tensions affecting, in this case, community cohesion central to the Pacific people.

Tukuraki relocation provided some very interesting data that were either complementing or contrasting with Matawalu village relocation. The relocation of Tukuraki had started but was not finalized yet at the time of the interviews. The relocation was already negotiated but not finalized. The new relocation site for Tukuraki village was identified in February 2014; it was selected after a geo-technical assessment by the Fijian Mineral Resources Department. The new site, at around 60km north of Lautoka, is 10km from its site of origin, and the last 10 homes were ready to move into by July 2017.

Figure 59: Tukuraki village new relocation site, 60km North of Lautoka, 10km from site of origin. (Photo: Julie Cleaver/PMC) [44]

The customary chief of the village insisted that the relocation of would allow Tukuraki villagers to be re-unified as a community again. The new site provides villagers with full access to clean water, poultry farms, new homes and infrastructures, retaining walls surrounding the village, an evacuation center and a church.
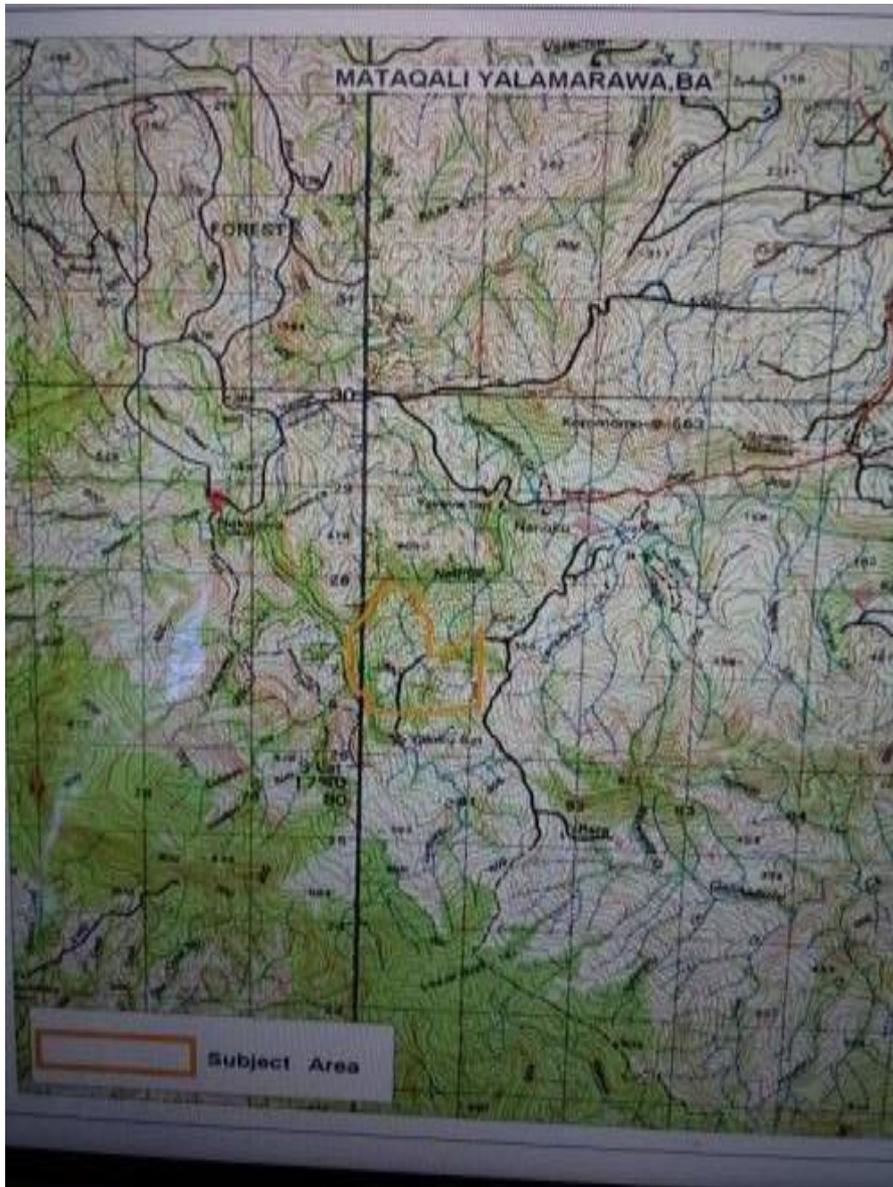
Figure 60: Final destination land for relocation is situated in Nanuku Village,Ba in Nalotawa district. It belongs to the Mataqali Yalamarawa NLC 1115, Lot 41 Area : 141.371hectar (Source: Ministry of Lands and Mineral resources, "Land Bank Investment opportunity in Fiji," Land use unit (2015:2-3), http://www.lands.gov.fj/images/landuse/ads/2015/dozier.pdf

Land was negotiated first with the *Yavusa Taubere* (the name of the clan owning the site). The Department of Mineral Resources then conducted a geotechnical assessment of the land and discovered that the soil was flood-prone and unsuitable for building new homes;

another heavy rain could make the new village inhabitable again. The Tukuraki customary chief negotiated then land of the Mataqali Yalimara (Figure 61- Figure 62, name of the tribe owning the destination site) with the community and their land owners. The site was selected as it has been assessed as "non-flood prone" after extensive testing. The relocation process has been supported by the Commissioner Western's Office, Ministry of iTaukei Affairs, and the National Disaster Management Office.

Figure 61: Tukuraki relocation site; the land of the Mataqali Yalimara/ Tokatoka Navuti. (Photo: Julie Cleaver/PMC)

The customary chief, Mr Simione Deruru underlined that the *Mataqali Yalimara* was approached through traditional protocols including *talanoa* sessions and kava exchange that concluded in December 2015 with the destination site's Mataqali gifting the piece of land for relocation. The donation of this piece of land meant giving up land that was benefiting to the *Mataqali Yalimara* as they were getting an income from leasing the land that was used for agriculture. The customary chief expressed contentment in having successfully negotiated the land. He is also very happy that his community will finally be safe and reunified after having been fragmented and living with relatives in different surrounding areas including urban nearby areas for almost 2 years. Again here, the land was accessed and shared through traditional protocols but unlike the Matawalu relocation,

this case shows a relocation that allowed to preserve community cohesion while reaffirming their "belonging" as a people to the land and its practice as the whole village was able to relocate to the new site.

Figure 62: Men at work in the new construction site. (Photo: Julie Cleaver/PMC)

The new village is located on a plateau and the old village is visible from the new site. However, the ruins have been overtaken by trees and jungle, and only the church remains almost as it used to be. *Josivini Vesidrau*, the chief's wife insisted that for the community there were important emotional costs that were associated with the move by leaving their past on the land where they were born. However, the relocation of Tukuraki has been organised in an inclusive manner with the aim to move the whole affected community all at once to the new site.

Figure 63: The new Tukuraki village finalized in July 2017 (Photo: Julie Cleaver/PMC)

7.4   Key observations from the field

7.4.1   Land tensions in planned relocation

Stories captured in*Matawalu* and *Tukuraki* relocations confirms that a middle-ground approach to relocation should be observed in order to avoid land tensions associated to relocation. Placing traditional chiefs and the affected communities at the center of the relocation process and empowering them early on in land negotiation is key. Indeed, data collected revealed firstly that customary arrangements can facilitate land acquisition in planned relocation as adaptation strategy to climate change. Talanoa sessions were used to negotiate the land as they are common in customary practices in the Pacific history. It is crucial to include an in-depth understanding of traditional protocols and the *talanoa process* in land negotiation and land acquisition while ensuring customary chiefs, land owners and communities are in constant dialogue through this process:

> The process of talanoa involves frank expression without concealment in face-to-face dialogue. It embodies our understanding of the inner feeling and experience of who we are, what we want, and what we do as members of a shared community termed the nation. I use the words "frank expression without concealment" precisely because the meaning of talanoa is derived from two different yet related meanings in the languages of Austronesian-

speaking people: tala meaning talking or telling stories and noa meaning "zero or without concealment." Our reconstruction of the meaning of talanoa tells us that it can mean engaging in dialogue with or telling stories to each other absent concealment of the inner feelings and experiences that resonate in our hearts and minds. Talanoa embraces our worldviews of how we can and ought to live and work together collectively and relate to one another as members of society (Halapua 2000)

Furthermore, field study provided key information on how the role of external stakeholders can be highly problematic within the relocation process and how tensions about land can emerge within an affected community despite using a middle-ground approach to relocation, placing traditional chiefs and the affected communities at the centre of the relocation process and empowering them early on in land negotiation. In the case of Tukuraki, the role of external stakeholders was perceived as very positive and their support was highly appreciated by the customary chief and the community. The fact that each stakeholder communicated very well and constantly informed the community about every steps of the relocation process was key. In the contrary, in the case of Matawalu, the customary chief and the people of Matawalu described pre- relocation tensions within the community as mostly due to a lack of clear communication and information on the relocation process from external stakeholders (UN-Habitat). It is therefore critical that the middle-ground approach to relocation is undertaken along with regular and clear communication, information and support from external stakeholders.

Questionnaires used confirmed this result. Indeed, the LMCM project framework used (see chapter 4 section on Methodology) on "issues with the potential to cause conflict over the management and use of customary land" was applied to the case of planned relocation through a questionnaire in Matawalu and Tukuraki villages. The aim for participants (n=18 in Matawalu and n=12 Tukuraki) was to rate each of these issues based on their perceptions in the context of planned relocation. The rating was organised as follows:

- a fear of the alienation of customary land (rate 1-10);

- a lack of information regarding the use of land (rate 1-10);

- a lack of input into decisions made regarding customary land (rate 1-10), and;

- an inequitable distribution of economic benefits from the use of customary land (rate 1- 10)

Results show that the "lack of information regarding the use of land" was in both villages the issue that was underlined as the most important in their relocation context. In the context of Matawalu, it was obvious that the lack of information from UN-Habitat was causing tensions amongst the community. The use of the land in Kavula was negotiated through the customary chief and the land owner but there were some uncertainties about who will be using the hosting land and how the land could be used at the destination site. The "lack of input into decisions made regarding customary land" was also a crucial issue for Matawalu villagers. After analysing results from semi-structured and narrative interviews detailed above; the lack of input into decisions made about who will move and who will stay might be at the origin of those results. The "fear from alienation of customary land" was more important amongst Tukuraki villagers and minor in Matawalu. It wasn't very clear to capture the exact reason behind this fear, however, in two narratives interviews, some elements revealed could lead to the conclusion their land has been contemplated for expropriation and therefore alienation of their customary ownership in the past. Overall, Tukuraki villagers expressed relatively low numbers when rating each category. The main explanation that came up from interviews was that villagers and the customary chief felt more confident about the relocation outcome that they mostly expressed in positive terms. They insisted that external stakeholders were of great support, while Matawalu villagers and customary chief were highly critical on the role of external stakeholders in their relocation process. Something to consider here is the fact that Tukuraki relocation was almost finalised at the time of interviews while Matawalu relocation was stil at very initial stage of the relocation process. If the interviews were carried at later stage, probably more unanswered questions would have been clarified with the Matawalu villagers and their chief. Another field study at later stage or a longitudinal study would have been useful in knowing more about this but as explained in the section on "challenges" (chapter 4); there were restrictions on time and resources that prevented the field study to be longitudinal or ethnographic.

Something to note is that both relocations have been considered around the same time, but it seems that Tukuraki relocation attracted quickly more funding, press attention and more visible external stakeholders than Matawalu. Even if it was made clear that the study was an independent and anonymous research, the exposure of Tukuraki might have biased the responses given by villagers and customary chief that understood how any information they would reveal could have been exposed through media and "break" the implicit trust between investors (external stakeholders), Fiji Government and the villagers in the future. Matawalu villagers were not exposed to the press and media; insights revealed by participants seemed overall to be more franc and critical.
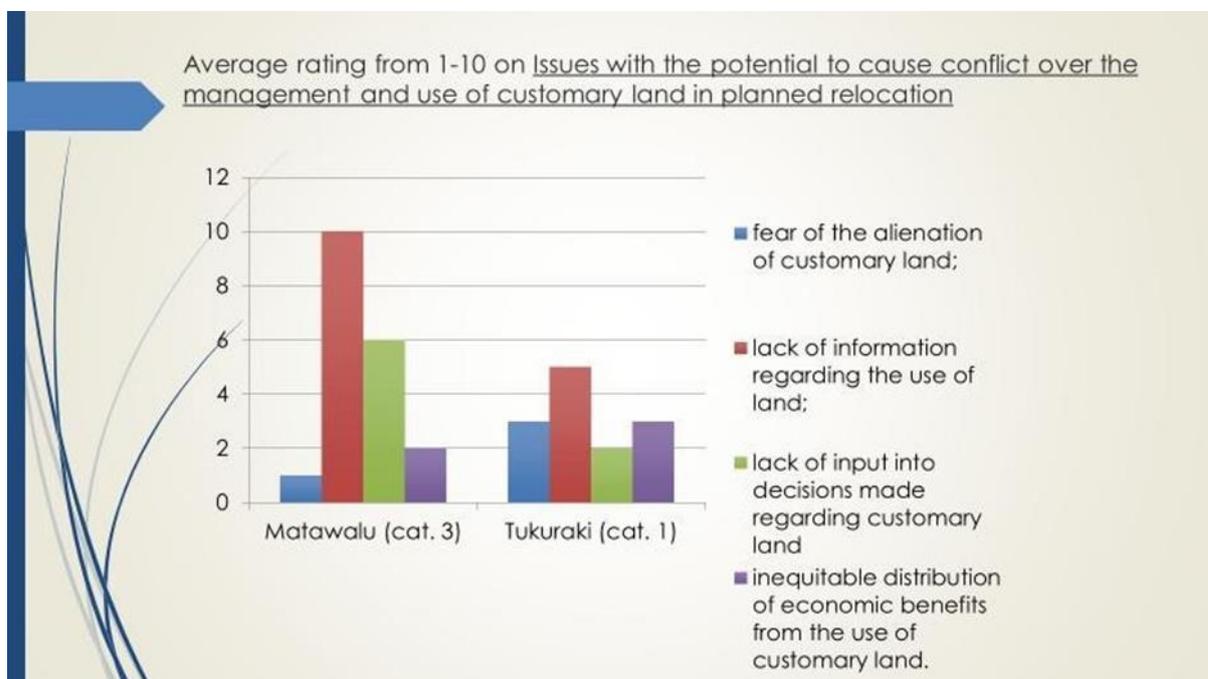
Figure 64: Results on Average rating from 1-10 on issues with the potential to cause conflict over the management and use of customary land in planned relocation in Matawalu and Tukuraki.

7.4.2 "Immobility' and "Trapped population"

Data collected also provided some key insights into so-called "staggered" relocation (see literature review in chapter 2 to have a thorough understanding of current debates around "staggered relocation" vs. "full relocation"). Results show that, in a context where the land is customary-based, "staggered" relocation is likely to cause tensions that would affect the community cohesion at the pre-relocation phase and that planning for relocation of the whole community is key to prevent those tensions.

After comparing the case of "full" relocation of Tukuraki and the partial future relocation of Matawalu, it was interesting to note that, at the pre-relocation phase, planning for a relocation that would include only a portion of the community can be highly problematic and can create tensions affecting community cohesion. The Tukuraki relocation shows that full relocation is likely to create less internal tension than planning for "staggered" relocation as it is the case for the Matawalu case study. However, Tukuraki relocation underlined that women were particulary vulnerable in planned relocation. Full relocation of the village population would allow cultural cohesion to be preserved, however, in both cases the emotional distress of leaving land behind added to the vulnerability of the villagers. In the case of Tukuraki, women particularly emphasised on that dimension while it was not the case in Matawalu. Indeed, interviews in Matawalu revealed rather a concern about "staying behind" and not being selected for relocation at the new site.

Tool developed: Snapshot

Name of village	Environment. Context	Relocation Approach	Institutional Approach	Relocation Stages	Relocation Process stages	Relocation Strategy	(Potential for) Land Conflicts identified	(Potential for) Water Conflicts Identified	Involvement of Customary chief and land owner(s)
Matawalu	Disaster-induced (flooding) Winston 2016 and recurrent yearly floods by nearby river	Reactive and Preventive	Driven by External stakeholders (UN-Habitat), supported by the State	Future (Cat. 3)	Planning phase	Staggered	(2) & (3)	N/A	Very high
Tukuraki	Landslides and disasters-induced recurrent flooding Winston 2016 particularly destructive	Reactive and Preventive	External stakeholders and Government. Fiji's National Disaster Management Office (NDMO) is in charge of the relocation that is funded in part by the	Completed (Categorie 2)	Monitoring	Full	(3) & (4)	N/A	Average

Figure 65:. Field study tool developed in the field reveals key results observed for Matawalu and Tukuraki relocation.

Directly deriving from the observation above, and after observing the cases of *Lami, Suvavou* and *Qauyia* villages, our study also revealed that planned relocation as an adaption strategy to climate change could leave a portion or an entire village trapped in sites assessed as 'at risk'.

Three variable categories of 'trapped communities' in the context of planned relocation as adaptation strategy to climate change are observed: (i) populations trapped following 'staggered' relocation; (ii) communities that do not have the means to relocate and are 'immobilized' at vulnerable sites assessed as 'hot spots' or at risk by government but not considered for relocation; and (iii) those communities perceiving themselves as at risk but not assessed as such and not considered vulnerable enough to be relocated. Issues around land acquisition in planned relocations are closely tied up with challenges faced by those 'trapped populations' who wish to move but remain *in situ*, not being able to relocate. In regions such as the Pacific, where collective forms of land ownership prevail, involuntary 'immobility' often refers to a whole community or part of it.

7.4.3   Water security

Semi structured interview results for *Lami, Suvavou and Qauiya* show that climate change is threatening water security in their communities through floods, droughts, loss of coral reefs and extreme environmental events having major consequences on coastal areas, fisheries, agricultural production and forests, which are the primary food sources in the region. At the same time, already fragile water resources in the Pacific Islands will be affected by climate change, specifically in coastal and low-lying areas.

Resource management is highly dependent on access to land and, in the context of relocation, it is essential to understand how access to, distribution and use of natural resources can be organized in a way that takes into account the land tenure systems and the interests at stake for all stakeholders including the affected and hosting communities. An understanding of land tenure is crucial in planning for sustainable relocation, given that traditional ideas about land tenure and community rights can create complexity when it comes to identifying the right to take, use and manage resources.

Furthermore, starting from the observation of Young (2015) that has identified that conflicts associated with water are inter-related to economic, traditional, social, climatic and environmental changes in the area around Lami River including Suvavou, Lami and Quiya; are centered on two types of natural resource conflicts, intra micro-micro and micro-macro, but are verbal in nature; The questionnaires used the Zeitoun and Warner scale, asking participants to evaluate: (i) current tensions related to water (access, quality

and quantity) in the village (Figure 67); (ii) tensions related to water (access, quality and quantity) at the pre-relocation phase (cat. 3) (Figure 68); and (iii) tensions related to water (access, quality and quantity) in potential future relocation (cat. 4) (Figure 69). The Zeitoun and Warner (2006) framework on water conflicts was used to assess and rate perceptions on water tensions in the context of planned relocation as an adaptation strategy to climate change at various phases of the relocation process.

Figure 66: Aggressive and Passive approach scale to water conflicts (Zeitoun, Warner 2006).

Figure 67: Perception on current water conflicts in Lami, Suvavou and Qauiya.

Figure 68: Perceptions on tensions related to water conflicts at pre-relocation phase.

Figure 69: Perceptions on tensions related to water conflicts in potential future relocation.

Results from questionnaires show that Lami, Suvavou and Qauiya communities all fall in the rank of the lower parts of the Passive approach towards water conflicts 0, 1 and 2 (see Figure 67, Figure 68 and Figure 69). Planned relocation is only perceived by 15 percent of the interviewees as a threat multiplier on water security. Furthermore, planned relocation is perceived as an opportunity to minimize existing tensions by 82 percent of

the interviewees. Semi-direct interviews revealed also that this is the case, providing that customary chiefs and land owners have a key role in the relocation process and in negotiations about land access. The roles of customary chief and land owner are perceived as central in preventing water tensions in relocation at the pre-relocation phase. The roles of customary chief and land owners are also considered central to avoid water tensions through land access and negotiation with the hosting community. Further research would be needed to determine conditions for getting into a higher score of passive conflicts and aggressive conflicts. Further research is also needed at the ongoing (cat. 1) and post-relocation phases (cat. 2).

Results show that the quality, quantity and accessibility of water are the main points of tension in the context of planned relocation at the pre-relocation phase. Results from 'vulnerable sites' not considered for relocation mainly show that the affected population that have current issues related to water quality, quantity and access perceive relocation as an opportunity to address those issues and improve their right to water. Land ownership and access to land is perceived as central in addressing water issues at the pre-relocation phase (the Chief has a central role in this).

7.5   Conclusion

Previous chapters of this thesis revealed that an important element to consider is the strong demand for more appropriate governance mechanisms by Pacific Islanders. Therefore, data collected on perceptions from affected populations and Pacific Peoples is key in this study. It allows the study to derive results directly from local perceptions of the issue. The main conclusions of the study insist on the need to insert customary leadership and ensure it has a central role in the decision-making process on planned relocation.

Partnership and discussions on land acquisition between customary chiefs and land owners should be facilitated as much as possible by the State and all external stakeholders involved in the relocation process that should ensure clear and regular information and communication about land and the relocation process is maintained at every stage of the relocation. There is little research on the land acquisition processes leading a community or part of it to be trapped or 'immobilized in the context of planned relocation, especially

within the Pacific context. Land acquisition is critical in the context of planned relocation in the Pacific, as land that is not under state control should be acquired through customary arrangements that are not regulated through formal processes. This can lead to negative outcomes, such as land disputes based on staggered relocation leaving part of the village in a flood prone area. The field study revealed that there are many ways to acquire land, including by compulsory land acquisition by the state (also called 'expropriation' or 'eminent domain'). Expropriation in relation to planned relocation and other aims is very political. The expectations are that fair compensation is provided, but often it is not and leads to conflict and court actions. Another way that land can be acquired is by purchase from those with legitimate claims to the land. On customary land, settlement can also occur by a process of agreement with the customary group where the *talanoa process* is key. The results focus on this later type of land acquisition; land acquisition is critical in the context of planned relocation in the Pacific, as land that is not under state control should be acquired through customary arrangements that are not regulated through formal processes. This can lead to negative outcomes such as land disputes based on staggered relocation leaving part of the village in a flood-prone area. The challenges of land negotiation (e.g. agreements with customary authorities), the way that land is accessed, and land acquisition can have a significant impact on planned relocation outcomes. Improving security of tenure and property rights in the process of supporting culturally appropriate relocation of affected people as an adaptation response are essential land tools and governance processes that could be useful to address gaps on immobility in planned relocation. The cases of *Matawalu* and *Tukuraki* reflect on the challenges land negotiation, land access and land acquisition can reveal in the case of planned relocation. Customary arrangements between the land owner of the hosting site and the customary chief of the affected village left a portion of *Matawalu* villagers behind, as land acquisition had been negotiated by the customary chief with the condition from the landowner to leave some of the new housing to the hosting community, which resulted in part of the *Matawalu* community not being able to move. The hosting community was not in such critical need as the *Matawalu* villagers were but improved their housing on this occasion. In this case land acquisition is considered as leading to "the arbitrary displacement of people and a lack of consultation with those who have rights to the land" (Correa et al. 2011). Both *Tukuraki* and *Matawalu* study teaches us that it is important to

identify suitable sites and landholders as early as possible to ensure that both the origin and hosting communities have secure tenure. This will allow a participatory process to be followed that respects the landholders' property rights and customary procedures. The land acquisition process for relocation has, in *Matawalu* study, created a case of staggered community relocation leaving part of the community behind and trapped in a flood- prone site. This has created tensions among the community as to which households would be able to relocate. Some have expressed the need to have a vulnerability assessment conducted by external stakeholders or the government in order to have someone from outside the community defining which households would be more exposed, most vulnerable and therefore selected for relocation. Participants underlined that this intervention would avoid tensions and disputes over land at the new relocation site, removing the responsibility from villagers and avoiding internal tensions. In the contrary, *Tukuraki* relocation gave hope and created a strong community cohesion during the relocation process which shows that negotiating for the whole community to be able to access land is key to avoid land tensions.

Disruption of cultural cohesion is one of the major consequences of this relocation. This illustrates how mechanisms of land acquisition in the context of customary land ownership should be improved to avoid staggered relocation as much as possible and ensure that the outcome of relocation does not lead a community or part of it to be trapped. Issues associated with land acquisition in planned relocations are closely tied up with challenges faced by those 'trapped populations' who wish to move but remain *in situ*, not being able to relocate. The field study revealed that "trapped population" in planned relocation is a crucial issue in the Pacific and three variable dimensions of 'trapped communities' tied to the Pacific context were revealed; (i) populations trapped following 'staggered' relocation; (ii) communities that do not have the means to relocate and are 'immobilized' at vulnerable sites assessed as 'hot spots' or at risk by government but not considered for relocation; and (iii) those communities perceiving themselves as at risk but not assessed as such and not considered vulnerable enough to be relocated.

This new classification has been included in the "typology of planned relocation" that will be presented in chapter 8 focusing on discussing the results of this study. Another finding from the field study underline the extent customary land tenure is key in forming sustainable adaptive response to climate change and how it relates to natural resource

management. It is particularly crucial to address this dimension, particularly in the context of the Pacific Islands, as important features such as food security, water access, and social structure directly rely on successful management of land ownership, right to land property and access to land. The study of *Lami, Suvavou* and *Qauiya* villages revealed that land ownership and access to land is perceived as central in addressing water issues at the pre-relocation phase (the Chief has a central role in this).

This research is based on data collected through community and institutional interviews in Fiji. The current chapter presented results from the community field study. The next chapter (7) explores a review of examples of good practice and refers to concrete processes related to climate change adaptation in the South Pacific region. This chapter allowed an in-depth understanding of the political processes at work on climate change and human mobility in the region. Putting in perspective the community study results and those frameworks enabled to address planned relocation taking both a social and policy perspective. Indeed, the next chapter 7 will review the different policies and practices that address human mobility or planned relocation as adaptation strategy to climate change in the region. This review will be conducted on the basis of a systematic desk study. We will then observe the results presented in chapter 5-6 and discuss them in the light of our theoretical approach in Chapter 8. Finally, we will provide in Chapter 9 "Conclusions" a series of conceptual observations and trends that will also serve to provide key insights to answer our main research question: "How can planned relocation be conceptualized as an adaptation strategy to climate change using Fiji as case study?"

CHAPTER 8
Policy approaches to climate change and human mobility in the Pacific

8.1   Introduction

Unlike other Pacific Island countries, the Fiji Islands are not threatened by the loss of their whole territory due to future sea-level-rise as it is the case for Kiribati or Tuvalu. However, they are facing several other environmental problems, such as coastal erosion, land degradation, increased storm surges and salinization of valuable water supplies (Mitchell, D., Numbasa, G., McEvoy, D. 2016). This reaffirms the necessity of considering relocations within the scope of disaster risk reduction efforts. Previous disasters, particularly if there is a lack of anticipated relocation planning, drives post-disaster vulnerability and exposure. In Fiji, most of the population lives near coastal areas and depends on natural resources for a living (fisheries and agriculture). The resilience of coastal populations, hit by recurrent rapid-onset hazards such as cyclones and slow-onset events such as drought and land degradation, can be eroded over time. Planning for sustainable relocations in a proactive manner reduces the human and financial costs involved, but it also helps reduce socio-economic factors contributing to vulnerability as well as to mediate exposure to natural hazards which can culminate in life-threating disaster events. The Cancun adaptation framework under the UNFCCC, the Sendai framework for disaster risk reduction and the work of the Warsaw international Mechanism for loss and damage have all acknowledged planned relocation as an adaptation measure for populations affected by the effects of climate change, with the understanding that it should be done as a last resort (Lindegaard, L.S., Funder M., 2017).

This chapter discusses policy approaches to climate change and human mobility by reviewing first examples of good practice and referring to concrete policy processes related to climate change adaptation in the South Pacific region. Results from this review allowed an in-depth understanding of the political processes at work on climate change and human mobility in the region. Putting in perspective the community study results and those frameworks enabled to address planned relocation taking both a social and policy perspective.   Indeed, this chapter will review the different policies and practices that

address human mobility or planned relocation as adaptation strategy to climate change in the region. This review will be conducted on the basis of a systematic desk study. In our next chapter (8), we will then observe the results presented in chapter 6 and discuss them in the light of our theoretical approach with the aim to draw some conclusion and provide key insights to answer our main research question: "How can planned relocation be conceptualized as an adaptation strategy to climate change using Fiji as case study?"

The structure of this chapter will be presented as follows: Firstly, national processes on climate-induced human mobility will be reviewed including the national initiative on planned relocation undertaken in Fiji since 2014. Based on our results from our community interviews emphasizing on the central role of customary chiefs and land owners in land negotiation; we will assess how customary authorities are represented in the relocation guidelines and whether this framework can be an example of good practice at policy level. Secondly, we will review institutional frameworks and policies in place on climate change and human mobility at regional level of governance including regional cooperation with key partners such as the European Union and France. Regional frameworks on climate-induced mobility will be also presented including the Strategy for Climate and Disaster Resilient Development (FRDP) that is the main framework at regional level on climate change and human mobility. The FRDP also includes the issues around urbanization that does not appear elsewhere in the regional policy agenda. A section on urbanization will therefore highlight the need to place discussions on urbanization currently at the regional agenda at the center of discussions. Indeed, political analysis and discussions have been addressing growing inequalities and social tensions emerging from poorly managed cities and rural areas. The rapid urbanization in the Pacific Islands creates growing pressure on services and infrastructures while intensifying social tensions. At the same time, on one hand, climate change is exacerbating challenges associated with urban food and water security that is directly relying on regional supply chains and regional (as well as national) infrastructure essential to service growing urban economies in the region. On the other hand, human mobility triggered by the adverse effects of climate change is amplifying rural-urban migration directly affected by regional disparities. Finally, sectorial mechanisms on land and conflict prevention at regional level have been explored including the Principles of Land Management and Conflict Minimization (LMCM) framework and the role of the Pacific Islands Forum (PIF) that is

the regional entity leading the discussions on climate-induced mobility in the Pacific region.

The next chapter (8) will discuss the results of the thesis. Results from the present chapter allowed an in-depth understanding of the political processes at work on Climate Change and Human Mobility in the region. Putting in perspective our community study results related to land tensions in planned relocation within those frameworks enabled to provide specific observations on policy approaches while proposing directions for future research on climate-induced human mobility to include local mechanisms of resilience, promoting approaches to security based on Pacific culture and avoid tensions occasioned by migration caused by environmental events as well as backlashes occurring when customary land tenure is not considered in relocation processes.

8.2 National Processes on Human Mobility and Climate Change

In 2013, 10 Pacific Island countries called for a Regional Consultation at the Nansen Initiative to "integrate voluntary migration, forced displacement, and planned relocation within national laws and policies, such as National Adaptation Plans, Joint National Action Plans, and National Disaster Management Plans" (Nansen Initiative 2013: 8). National political processes on human mobility (other than in the circumstances of evacuation) as a climate change adaptation strategy are at work in a number of Pacific States. We can cite the examples of the National Adaptation Plan of Action (NAPA) and the Joint National Action Plan on disaster Risk Management and climate change that have been blooming in the region over the last decade. Simultaneously, other policies and instruments relating to climate change, disaster risk management and human mobility have gradually emerged in the region. For instance, Kiribati officialized the NAPA in 2007 but a series of other policies have been developed subsequently including the National Framework on Climate Change and Climate Change Adaptation (2012), the Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management: 2014–2023 and the Kiribati National Labor Migration Policy (2015). Vanuatu also developed the NAPA in 2007 and nine years later, in 2016. The National Climate Change Adaptation Strategy and Climate Change Disaster Risk Reduction Policy 2016-2030. Cook Island implemented in 2013 the Kaveinga Tapapa, Climate Change and Disaster

Compatible Development Policy: 2013–2016. Solomon Islands established the NAPA in 2008 and the Climate Change Policy: 2012–2017 in 2012. Tuvalu officialised the NAPA in 2007 but also the Tuvalu National Strategic Action Plan for Climate Change and Disaster Risk Management: 2012–2016 Tuvalu National Labour Migration Policy in 2015. In 2010, Tonga set up the JNAP: 2010–2015 as well as the Tonga Climate Change Policy: A Resilient Tonga by 2035. Papua New Guinea only developed the Strategic Program for Climate Resilience in 2012. However, the table below (Figure 70) illustrates that reference to human mobility in National action plans and frameworks is still insufficient. Recent dialogue on this emerging issue may not yet have found its way into national policies. The main focus of both the plans and legislation relating to disaster risk management in most countries of the Pacific makes rather reference to evacuation with a particular focus on the immediate and temporary logistical measures required to deal with this type of displacement (IDMC 2013). There is therefore a gap on planned relocation in National policy of countries such as Samoa, Marshall Islands, Niue, Federated States of Micronesia, Nauru, Palau and Tokelau.

National action plans and frameworks		Legislation
Kiribati	***NAPA (2007)*** National Disaster Management Plan (2010) *National Framework on Climate Change and Climate Change Adaptation (2012)* *Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management: 2014–2023* *Kiribati National Labour Migration Policy (2015)*	National Disaster Management Act 1993
Samoa	**NAPA (2005)** National Policy on Combating Climate Change (2007) Samoa National Labour Migration Policy (2015)	Disaster and Emergency Management Act 2007
Solomon Islands	*NAPA (2008)* *Climate Change Policy: 2012–2017* National Disaster Risk Management Plan (2009)	
Tuvalu	*NAPA (2007)* *Tuvalu National Strategic Action Plan for Climate Change and Disaster Risk Management: 2012–2016* *Tuvalu National Labour Migration Policy (2015)*	Climate Change and Disaster Survival Fund Act 2015

Vanuatu	*NAPA (2007)*	Meteorology, Geological Hazards and Climate Change Act 2016
	Disaster Risk Reduction and Management National Action Plan: 2006–2016	
	National Climate Change Adaptation Strategy for Land-Based Resources: 2012–2022	
Cook Islands	National Action Plan for Disaster Risk Management: 2009–2015	
	JNAP: 2011–2015	
	Kaveinga Tapapa, Climate Change and Disaster Compatible Development Policy: 2013–2016	
Marshall Islands	National Action Plan for Disaster Risk Management: 2008–2018	
Niue	National Climate Change Policy (2009)	
	JNAP (2012)	
Papua New Guinea	Disaster Risk Reduction and Disaster Management National Framework for Action: 2005–2015	Disaster Management Act 1993
	National Climate Compatible Development Management Policy: 2014–2016	
	National Disaster Mitigation Policy	
	Strategic Program for Climate Resilience (2012)	
Tonga	*JNAP: 2010–2015*	
	Tonga Climate Change Policy : A Resilient Tonga by 2035	
Fiji	National Climate Change Policy (2012)	
Federated States of Micronesia	National Climate Change Strategy (2009)	Climate Change Act 2014
	Nationwide Integrated Disaster Risk Management and Climate Change Policy	
Nauru	Not applicable	Disaster Risk Management Act 2008
Palau	National Risk Management Framework (2010)	
	Palau Climate Change Policy (**2015**)	
Tokelau	National Strategic Plan: 2010–2015	

Figure 70: National Plans, Laws, and Policies in the Pacific Relating to Climate Change and Disaster Risk Management (those referring to mobility in red and italic) (Fornale E., Kagan, S. 2017:30)[8]

Fiji, at the center of our study, has elaborated a Climate Change policy in 2012 but there was no inclusion of the "human mobility" dimension. Despite having no mention of relocation in their 2012 climate change policy, the Fiji government has been recently showing leadership in planning relocation through the national relocation guidelines. Fiji is at the forefront of implementing concrete political processes on planned relocation and had been developing a national tool since 2014 that will serve as "guideline" for planned

relocations in the country. Peter Emberson, Director of Climate Change at Fiji Ministry of Foreign Affairs, underlined at the annual Pacific Climate Change Roundtable (PCCR) (15 May 2015, Apia, Samoa), that a participatory approach in relocation planning inclusive of technical specialists, social scientist and local community experts needed to be inserted into the national relocation guidelines (Pareti *in press*). However, the guidelines "{…} do not appear to be done in consultation with any potential affected communities" (McNamara 2015:318). It is essential to support, facilitate and coordinate at regional level national initiatives such as the national relocation guidelines currently being developed in Fiji on the basis of lessons learned from past and recent relocations.

The guidelines include a "Planned Relocation Working Group" (PRWG) aiming to ensure the sustainable relocation of affected vulnerable villages in Fiji (Fiji Relocation Guidelines 2018). In carrying out its duties, the PRWG will ensure that a transparent and effective multiparty governance system is followed and that the rights and interests of the Fijian local community are respected. The role of the Ministry of iTaukei Affairs (MTA-) in this working group is paramount, reflecting the interests of customary authorities during three important stages of planned relocation including; Phase 1 (Facilitating Connection with Villages Consultations), Phase 3 in which "iTaukei Lands and Fisheries Commission" (TLFC) within the MTA identifies new sites and Phase 5 during which the MTA safeguards social and cultural values as well as village needs. The Ministry of Foreign Affairs and International Cooperation - MFAIC – and the Climate Change Division-CCD-) are responsible for conducting Phase 2 relocation, including an assessment of the vulnerability to climate change and the emotional well-being of the community in the context of the tensions caused by relocation.

In view of the results of this study in chapter 6, the role of customary authorities, local (impartial) experts and affected communities can no longer be limited to a simple consultative role. These actors must be legitimate and central stakeholders in the development of political processes on the issue of climate-induced human mobility. National relocation guidelines such as those developed in Fiji are an example of good practices that can serve as a model for other Pacific States.

It is essential to note, however, that follow-up on this initiative would be necessary in the coming months and years in order to determine to what extent and under what conditions

the representativeness of customary authorities, traditional leaders and communities will be effectively carried by the MTA and embodied in the relocation process.

As observed in the previous chapter, the case studies explored in the field revealed that Cyclone Winston had a considerable impact on communities in Fiji forcing them to relocate. For its recovery from Cyclone Winston, Fiji government followed the Sendai Framework for Disaster Risk Reduction 2015-2030. This voluntary non-binding instrument recognizes that the State has the primary role to reduce disaster risk, but it also emphasizes that this responsibility should be shared by the local government and local communities as stated in Article 19.(f) : « While the enabling, guiding and coordinating role of national and federal State Governments remain essential, it is necessary to empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate" (Sendai Framework for Disaster Reduction 2015-2030). The central role of local authorities and customary chiefs in relocation planning was also clearly underlined by an interviewee from the Ministry of Land in Fiji when discussing an on-going relocation caused by Cyclone Winston in Koro Islands: "The Native Lands Commission (NLC) holds a key role in the relocation process as demarcation of land and maps that are key to avoid conflicts are based on land ownership knowledge. Customary chiefs and land owners hold an equal chair in the NLC." (Fiji Ministry of Lands interviewee, personal communication, 30 April 2016, Christchurch, New Zealand).

This clearly emphasizes the need for relocation governance frameworks to include mechanisms allowing hosting and affected communities as well as their traditional leaders to have access to reliable information, in order to enable participation in the decision-making process in an optimal manner (Gharbaoui & Blocher 2016b). Linking this observation to the results of our field study, efforts from decision-makers should also target proactive communication on the various steps of the relocation process as well as awareness-raising on the adverse effects of climate change and induced relocations among exposed or affected communities and their leadership authorities.

Challenges such as translating "climate change" into different Fijian languages and dialects should not be neglected (Janif et al. 2016). The relocation process should also include Faith- Based Organization as much as possible as they play a crucial role in

raising awareness on climate change and in convincing communities to be empowered in relocation planning and not passive to the divine will. FBOs can also play an important role in relocation planning as key informant about cultural and spiritual features associated with communities' land (Ministry of Churches interviewee, 18 February 2016, Wellington). In the same line, involvement of local researchers and local land experts with their input in framing the agenda in terms of relocation planning should be further prioritised, encouraged and considered at the decision-making level in order to address cultural cohesion, loss of cultural heritage and associated tensions limiting adaptation through relocation (Federation of International Surveyors interviewee, June 2016). Western researchers and institutions are still taking the lead on climate-induced migration. It is crucial that traditional knowledge as well as locally-based expertise is valued when planning relocation as perceptions of the environment and environmental change have cultural elements (Gharbaoui & Blocher 2016b).

The relocation guidelines that have been developed by Fiji are another recent example that uses a regional approach at its core. Indeed, the guidelines use the following terms to explain the centrality of a regional approach to relocation;

> These Guidelines also consider a Regional Approach, in particular when addressing planned relocation related to climate change, due to high probability of potential cross- border movement or integration of people in hosting foreign societies. The Pacific regional approach proves to be a set of comprehensive integration policies, promoting inter-state collaboration, good examples and preventing xenophobia, discrimination, and/or (violent) prejudice of native population against new–comers (migrants). {…} Regional Approach refers to bringing domestic policies in accordance with regional existing norms in order to strengthen the societal values and traditions specific to all regions in the world and to address the need for an inclusive approach for all stakeholders, including civil society, and upon the relevance of "pre-existing cultural and social beliefs about the roles, functions, responsibilities and social standing of different groups within societies, and resulting practices (Fiji planned relocation guidelines 2018: 9).The next sections will focus on regional cooperation and policy on climate change and human mobility that is blooming in the region and that

is considered as a model of governance in other regions facing the same challenges than the Pacific.

8.3 Regional governance of climate change and human mobility in the Pacific

8.3.1 Migration governance at regional level

Regional Governance of migration in the Pacific is crucial to create effective environmental migration and development policies that would require timely cooperation between origin and hosting countries. Bilateral, regional and multilateral cooperation is therefore central in the context of migration. The international dialogue on migration in the Pacific Region was initiated for several decades at the Pacific Forum Annual Meeting and the South Pacific Commission (Secretariat of the Pacific Community). Within the region, the SPC and the PIFS are the main regional organization tackling issues related to migration. Some initiatives on migration have already been undertaken in the region such as the increasingly active Melanesian Spearhead Group initiated in 1983 and including a "skill exchange project" between Fiji, Solomon Island, New Caledonia and Vanuatu. The Pacific Immigration Directors' Conference (PIDC) established in 1996, is a forum for Official Immigration Agencies of the Pacific Region enabling discussion between immigration with the aim to foster multilateral cooperation within the region by building and enhancing quality immigration and border management practices within the Pacific region.

Other larger regional initiatives encompassing migration and free movement governance include the Economic and Social Commission for Asia and the Pacific (ESCAP), the Asia-Pacific Economic Co-operations (APEC), the Intergovernmental Asia Pacific Consultations of Refugees, displaced persons and Migrants (APC) and the Asia-Pacific Regional Initiatives on Migration (Bali Process).

Climate change will be a decisive factor in the development of regional frameworks around migration in the Pacific region. The next section will develop in more detail regional governance of climate change in the region.

8.3.2 Climate change governance at regional level

A stronger regional approach to climate change embodied in a regional framework and an effective program of action is required to safeguard the lives and interests of the 9.5 million indigenous people of the South Pacific. National climate change policies and laws which must be holistic in character are also imperative to protect indigenous people, their land, economies and cultures. Where regional action is lacking, national governments must take a proactive role in addressing the impacts of climate change at the domestic level. The impacts of climate change is already present and delay by governments in adopting national climate change measures only increases the predicament of indigenous people. South Pacific countries need technical, financial and other support from their developed country partners and multilateral organizations in designing workable and achievable national climate change regulatory frameworks and a regional strategy on climate change. Countries and indigenous people in the South Pacific face a huge challenge in sustaining their land, lives and identities in the long term. A long-term holistic strategy which spreads across geographical, socio-political and legal borders may provide the solution to the future of South Pacific indigenous peoples and countries. (Kwa 2009:13)

The Pacific Islands Forum (PIF) Secretariat through the establishment of the Pacific plan is the main regional entity supporting climate governance in the Pacific Region. The organization comprises 16 independent states and harmonizes regional positions on issues related to climate change, migration, land and conflict. Political and legal decisions are taken at the annual Pacific Islands Forum leaders' meetings. The Pacific Regional Environment Programme (SPREP) is the major intergovernmental, regional organisation in charge of framing programmes managing and protecting the environment and natural resources over the region. The Secretariat of the Pacific Community (SPC) is another regional entity that delivers technical assistance and policy support to 22 Pacific Island countries in areas including such (as health, human development, agriculture, forestry and fisheries.) Another regional organization supports sustainable development initiatives is the South Pacific Applied Geoscience Commission (SOPAC). SOPAC is now the Geoscience Division of SPC. Finally, the University of South Pacific (USP) is a major educational institution in the region as it provides education, consultancies and targeted

research including in the area of sustainable development, migration, land tenure and the environment. The SPREP has an important role in the face of climate governance as it is the coordinating entity reflecting the region's engagement with the United Nations Framework Convention on Climate Change (UNFCCC). The PIF has more the role of political leadership and effective resourcing in the face of climate governance in the region, the SPC engages with practical application of adaptation and mitigation measures while the regional research pole is promoted and handled by the USP.
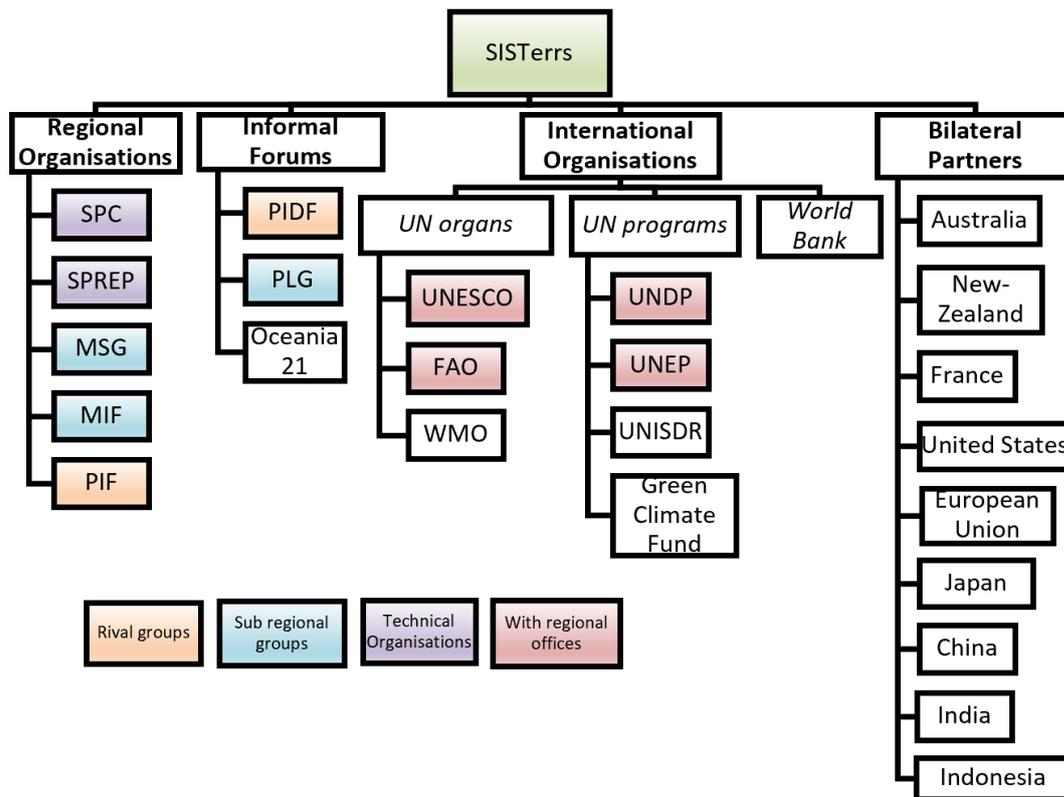
Figure 71: Actors of cooperation on Climate Change in Oceania (Victor David 2020)

The Pacific Forum Leaders endorsed in 2005 the establishment of the CROP agencies within the Pacific Islands framework for action on Climate Change 2006-2015 (PIFACC)[46] that is the main regional and national climate change governance framework. The CROP agencies are regrouping the following organisations; FFA (Pacific Islands Forum Fisheries Agency), FSMed (Fiji School of Medicine), PASO (Pacific Aviation Safety Office), PIDP (Pacific Islands Development Program), PIFS (Pacific Islands Forum Secretariat), PPA (Pacific Power Association), SPC (Secretariat of the Pacific Community), SPREP (Secretariat of the Pacific Regional Environment Programme),

SPTO (South Pacific Tourism Organisation) and USP (University of the South Pacific).The CROP has been established in order to ensure that external stakeholders address issues related to climate change in the region to a single representative entity seen as an integrated "climate change support team". The CROP Executives Subcommittee on Climate Change (CES- CCC) jointly chaired by PIFS and SPREP were created in in 2010 with the aim to coordinate the work of the CROP agencies. The Working Arm of the CES-CCC (WACC) was set up in 2011 with the role to facilitate interaction among the CROP focal points. The CROP agencies also participate to regional climate change coordination dialogues with international development partners as well as in the biannual Pacific Climate Change Roundtable (PCCR) and the bi- monthly Development Partners in Climate Change (DPCC) meetings.

Within the framework of the CROP, the SPREP's role is to ensure regional collaboration on needs related to climate change in the region. SPREP also has the role to mainstream climate change into national policies on sustainable development, identifying adaptation priorities and supporting other CROP's members in carrying out adaptation programs on the ground. It has also the role of monitoring key donors in the region such as UNDP, the Australian Agency for International Development (AusAID), US Agency for International Development (USAID) and the European Union. Through the SPREP's 2011–2015 Strategic Plan, the SPREP reflects on the region's climate change priorities for action to strengthen the national capacity to respond to climate change through policy improvement, the implementation of adaptive measures and enhancing resilience to the impacts of climate change with at the same time promoting initiatives aiming at achieving low carbon development.

The permanent Chair of the CROP is coordinated through the PIFS that supports Leaders' decisions and regional policy under the Pacific Plan. The PIFS has a crucial role in coordinating the negotiation with development partners including guidance on where development assistance is allocated in the region. The Pacific Plan has been conceived by the Pacific Islands Forum in 2004 in order to strengthen regional cooperation and integration. Climate change is a key priority under the Pacific Plan. The Pacific Plan Regional Framework for Disaster Risk Management, Framework for action 2005-2015 was approved in 2005 by Pacific leaders and has been developed to reinforce the objectives of the Pacific Plan and directly support the development and implementation

of policies relevant to environmental management, mitigation and management of natural disasters. The SOPAC is the entity facilitating the Regional DRM implementation for each Pacific Islands' country through regional and national mechanisms.

CROP agencies are implementing the Pacific Plan with the aim to improve strategic coordination and existing regional capacities and support national implementation frameworks including the context of climate change. Climate change is a key priority under the Pacific Plan. Each CORP's agency has inter-linked responsibilities and each individual agency contributes to achieving the overarching goals of the Pacific Plan. Another important entity is the Pacific Islands Development Program (PIDP 2003:6) that mainly assists the Pacific Island leaders to "{…} achieve and sustain equitable social and economic development consistent with the goals of the people of the Pacific Islands region." The PIDP support the PIFS as Secretariat for the Pacific Islands Conference of Leaders discussing issues related to climate change, it has also an important educational role by leading training developing tools on improving Pacific Island livelihoods.

Leaders recognized the security implications of climate change at the 1994 Forum meeting where they reaffirmed that "global warming and sea-level rise were among the most serious threats to the Pacific region and the survival of some island states" (PIF 1994). Leaders reaffirmed the urgency of recognizing and addressing the security implications of climate change in the 2013 Majuro Declaration for Climate Leadership and in 2015 agreed on the Pacific Islands Forum Leaders Declaration on Climate Change Action in the lead up to the Paris COP21 meeting. It was not until 2011-2015 that a work program in relation to climate change and security emerged, specifically in relation to better understanding the relationship between climate change, migration and conflict. A research policy brief, "Promoting Human Security and Minimizing Conflict Associated with Forced Migration in the Pacific Region", was completed in May 2015.

8.3.3 Regional Cooperation on Climate change and Human Mobility

Human mobility as result of climate change in PICTs, as everywhere, is based on a complex decision-making process involving multiple factors. The increased awareness of the States to take action and consider the importance of the linkages between migration, displacement, relocation and climate change has urged the emergence of Global

Frameworks and political processes dealing with Climate Change and Human Mobility with, among others, the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the Sendai Framework for Disaster Risk Reduction, the Advisory Group on Climate Change and Human Mobility, the Global Migration and Development Forum (GFMD), and the UN process towards global compacts for large movements of refugees and for safe, orderly and regular migration, triggered by the 2016 New York Declaration. At the same time, the need for contextualized and differentiated action while addressing cross-border mobility within regions has brought regional consultative processes to rapidly develop in the last decade, including initiatives such as the Nansen Initiative, the Platform for Disaster Displacement, Regional Consultative Processes on Migration (RCPs). Gradually, anticipative measures including retreating from coastal areas and development of population relocation preparedness strategies have become a priority for the region (SREP 2010: 5). At the regional level, relocation has been identified as a main priority for climate change adaptation since 2012 alongside food security, crop improvement, water security, and resilient infrastructure (AUSAID 2012).

President Anote was the first one in the region to refer to Human Mobility as main adaptation strategy to climate change as well as gradual, facilitated international or internal mobility and declaring that; *"even a marginal increase in sea level would be disastrous… Warning signs are already appearing… The reality is that we have to find alternative homes. The levels already in the atmosphere cannot be reversed"* (Solomon Times 2010). However, Human Mobility as adaptation strategy to climate change should be a last resort solution as underlined by the 2011 Nansen Principles stating that all efforts should be directed towards preventing affected people to move, failing which, towards assisting and protecting the people displaced (Nansen Conference, principle 4). The Pacific regional consultation under the Nansen Initiative concluded that it was particularly the case in the Pacific and planned relocation should be considered if no option is left to the affected population. The Nansen Initiative was undertaken following the adoption of paragraph 14 (f) of the Cancún Outcome Agreement in December 2010 (COP16) recognizing climate change-induced migration, displacement and relocation as an adaptation challenge. The Nansen Initiative was developed based on the outcome of the June 2011 Nansen Conference on Climate Change and Displacement in Oslo with the

aim to address the need for a more coherent approach to the protection of people displaced across borders in the context of disasters and the effects of climate change.

Climate change will be a decisive factor in the development of regional frameworks around migration in the Pacific region. In the Pacific, regional approaches will be shaped by burgeoning youth population, new political powers – China and others – increased focus on security, climate change, the Melanesian Spearhead Group and the internal politics of Australia and New Zealand. Other regional powers such as the European Union through the key role of France are expanding their cooperation with the Pacific. The next section will provide more details on this cooperation and the role of the EU as important stakeholder in some recent relocation projects in Fiji.

8.3.4   European Union (EU)-Pacific Regional Cooperation

We have acknowledged from the field study that the EU has been involved in some important planned relocation projects and has an important role in the region as external stakeholder. Therefore, in order to position the EU within the regional framework at work in the region, it is interesting to first understand the European Union's relations with the Pacific in the context of climate change adaptation. In the coming decades, Pacific regional institutions will be profoundly reshaping their structure to provide an efficient response to the security threats caused by climate change. Regional and inter-state mechanisms, particularly, are experiencing major transformations that will considerably affect EU–Pacific bilateral relations and cooperation. The EU Strategy for a Strengthened Partnership with the Pacific (2006) and the Pacific Plan for Regional Integration (2005– 2010) will need to be reshaped according to the new regional configuration. New approaches based on the Pacific experience will need to be framed to address development assistance but also to enhance the EU–Pacific Island Forum (PIF) political dialogue on regional security and climate change governance and the trilateral Pacific dialogue with Australia and New Zealand on climate change, peace and security in the region. In 2012, *Towards a renewed EU-Pacific Development Partnership* emphasized the role of the Pacific becoming an "emerging foreign policy priority" for the EU. The climate change impacts on vulnerable low-lying islands as well as its geostrategic importance are making the Pacific a priority in future EU regional cooperation. At the same time, the EU is perceived by the Pacific region as a main global leader in the area

of climate change, environment and biodiversity and is also of strategic importance for Pacific regional governance (Laporte 2013). The future of regionalism is in the making.Europe is undeniably looking at both the Atlantic and the Pacific through the a multipolar perspective and will need to strengthen its position within the EU–United States–Asia triangle, bearing in mind that the future of economic order will be local rather than multipolar, as trans-continental free trade agreements imply huge transport and environmental costs. The combination of multilateralism, localism and global governance mechanisms working in tandem with regional governance seems to be the only viable model in the coming decades. This will be a considerable challenge and Europe will need to be able to find its place in the new configuration (Van Langhenhove & Gharbaoui 2015). In this context, the strategic role of the Pacific is more than ever central for the EU, as the Pacific is attracting unprecedented global attention by the emerging economies (BRICs) and the traditional global partners (United States and Japan) that are negotiating their new bilateral relations based on renewed interests, while Australia and New Zealand remain the key partners of the Pacific countries.

8.3.5   What Role for French Territories?

This repositioning could also be an opportunity for French members (French Polynesia and New Caledonia) to have a role in the emerging regional dynamics on climate change and relocation. This is particularly relevant in a context favorable to the immersion of French territories in the regional governance of the South Pacific since France is a key partner of the Pacific Islands Forum (PIF) that intends to take the leadership in regional governance of climate change and human mobility (see section…). New Caledonia and French Polynesia that have been associate members since 2006 are now full members of the PIF but also member of the Secretariat of the Pacific Community (SPC), the Pacific Islands Development Program and the Regional Oceania Environment Program. For the first time in September 2017, the FIP welcomed French Polynesia and New Caledonia as full members. The Forum now comprises 18 States and territories that will be discussing the major challenges of the coming decades at an annual meeting that puts climate change at the heart of discussions. Since 2007, for the first time, French Polynesia and New Caledonia, have a special status in these regional discussions. The PIF's decision to integrate them as a full member is an eminently political decision; on the one hand, Pacific

States and territories perceive an alliance with France as privileged access to the European Union and consider climate change and human mobilities as a considerable challenge requiring the strengthening of alliance of all Oceania States. On the other hand, at the dawn of COP 24, it is of strategic interest for France to integrate the ongoing regional processes in order to face together the challenges of climate change. The French State has shown a growing interest to integrate its territories in the South Pacific and has supported the candidacy of Polynesia and New Caledonia within the Forum in order to strengthen France's position and integrate these two islands into regional agreements, particularly relating to climate change.

Pacific countries are reshaping their regional collaboration to plan and implement adaptation strategies in order to increase their capacity to deal with mobility in the context of both slow- and rapid-onset disasters. There is a strong need to strengthen regional cooperation on adaptation to climate change in the Pacific Region. This cannot be done without involving French territories in the process and ensuring that the challenges related to climate change are faced by the region with more coherent and harmonized policies to attain durable and sustainable solutions. The reshaping of the Pacific is an opportunity for both France and PICTs to develop mutually beneficial approaches in this new configuration. New Caledonia and French Polynesia are not member parties of the Alliance of Small Islands States (AOSIS) and are therefore not eligible for sufficient adaptation funds from international funding institutions. The vulnerability of SIDS will be undifferentiated, despite the political status of territories. This is of crucial importance for the future of French Territories in the Pacific that will not be spared by the significant impacts that climate change will have on the region.

It is also becoming urgent to involve French territories in the establishment of strong regional partnerships working together towards achieving the objectives of the Pacific Plan on adaptation to climate change adopted at the PIF Leaders' Summit in Port Moresby in October 2005. Furthermore, the regional integration of French Territories is necessary in planning sustainable strategies to combat the adverse effects of climate change in the coming decades, so the diversity of the region is considered, and more coherent migration models are fostered. It is particularly relevant following the visit of Emmanuel Macron in May 2018 to New Caledonia. The President Macron, during his visit in Noumea reiterated the importance for France to develop a strategy around an "Indo-Pacific axis"

and declared: "I believe (...) in the place that this territory occupies in a broader strategy that we must have throughout the region". He added that the United States had "rather turned its back on the region in recent months" while China was "building its hegemony step by step." (AFP 2018)The regional, national and local political processes under development described in this study are true global precursors to human mobility issues related to climate change. To be effective, the French climate strategy must be coordinated with the Island States and Territories of the Pacific region. This action should also be part of the multisectoral regional agreements currently being developed in the region, notably on the protection of people displaced by climate change, but also part of the multisectoral agreements indirectly related to climate issues such as land agreements directly relevant to urban issues. French strategy in the Pacific should include strengthening its position at the regional level while integrating the currently developing political processes in the region. Emphasis should be placed on France's presence in regional agreements and forums where France was previously absent. This should be done in particular through a strengthening of France's position within the PIF that is playing a central role on these questions in the region. Therefore, it would be essential to determine how can France strengthen its position within the PIF on questions such as the adaptation to climate change and management of natural resources?

8.3.6   Regional Frameworks on Climate-Induced Human Mobility

Forced migration is recognized at the regional level of governance in the Moana declaration – Pacific Church Leaders, the Suva Declaration [Para 7], the Polynesian PACT and the Strategy for Climate and Disaster Resilient Development (FRDP) that is, currently, the main framework discussing regional processes on climate-induced human mobility and security in the Pacific. Indeed, the SRDP is likely to be the overarching policy framework for integrated action on climate change. The security implications of climate change and disaster are largely recognized in the document, particularly in relation to four issues: (i) energy security; (ii) food and water security; (iii) migration; and (iv) risk management. This tool is therefore central to the management of land and water resources within the framework of human mobility as adaptation strategy to climate change. For South Pacific island countries, the implementation of the SRDP also contributes to the implementation of global frameworks, including the 2015-2030 Agenda

for Sustainable Development, UNFCCC Paris Agreement on Climate Change, the 2015-2030 Sendai Framework for Disaster Risk Reduction, and the accelerated "S.A.M.O.A. Pathway" modalities of action. It is also in the SRDP that the issues related to urbanization appear at the regional level.Under Objective {3} "Strengthened Disaster Preparedness, Response and Recovery", which emphasizes the importance of "paying particular attention to the resilience of urban spaces". Urbanisation does not appear elsewhere in the regional policy agenda. In this context, multi-party partnerships can mean building coalitions between different government sectors and communities to ensure that the issue is on the political agenda. Indeed, one of the outcomes of the Pacific Urban Forum in 2015 was to use existing regional policy frameworks, such as the Pacific Regionalism Framework, as entry points to strengthen policy engagement on the importance of addressing urban challenges in the South Pacific.

8.3.7   Regional Agenda on Urbanism

In the last decades, urbanization growth rates have been important in the Pacific region; one in four people live in urban areas, and 12 out of 22 Pacific countries have higher urban than rural habitants (Mitchell, Orcherton & Numbasaand McEvoy 2016). Figure 72 below illustrates the urban growth all through the Pacific region. The rapid urbanization in the Pacific Islands creates growing pressure on services and infrastructures while intensifying social tensions and growing inequalities emerging from poorly managed cities and rural areas At the same time, climate change is exacerbating challenges associated with urban food and water security that rely directly on regional supply chains and regional (as well as national) infrastructure essential to service growing urban economies in the region. On the other hand, human mobility, triggered by the adverse effects of climate change, is amplifying rural–urban migration directly affected by regional disparities.

Country	Urban Population (1,000s)				Percentage Urban (%)			
	1990	2000	2010	2020*	1990	2000	2010	2020*
Asia	1,002,731	1,360,900	1,757,314	2,168,798	31.5	36.8	42.2	47.2
Pacific	19,037	21,932	25,167	28,406	70.7	70.4	70.2	70.4
Australia	14,596	16,710	19,169	21,459	85.4	87.2	89.1	90.6
New Zealand	2,869	3,314	3,710	4,058	84.7	85.7	86.8	86.9
Melanesia	1,093	1,329	1,614	2110	19.9	19.0	18.4	19.9
Fiji	301	384	443	501	41.6	47.9	51.9	56.4
New Caledonia	102	127	146	169	59.5	59.2	57.4	58.5
Papua New Guinea	619	711	863	1194	15.0	13.2	12.5	14.1

Figure 72: In Fiji and the Pacific region, there has been an important increase in urban growth over the last two decades (Mitchell, Orcherton, Numbasa and McEvoy 2016).

As underlined at the workshop on the regional implications of urbanization organized by the Australian National University (ANU) and the PIF Secretariat in December 2017:

Local action alone cannot address urban opportunities or challenges which often range across sectors and levels of government. Coordinated local to regional action is needed to harness the development advantages of cities. The value of considering the wider impacts of urban management is clear when examining how urban policy and programs affect national and regional resilience. The high concentration of people, communication networks and valuable infrastructure in cities can result in extensive human and economic impacts following major climate events. Regional agencies, working in collaboration with local, national and international bodies, are well placed to leverage the convening power and resources of initiatives such as the United Nations Sustainable Development Goals (SDGs), the 2016 New Urban Agenda, international climate funds and assistance, and ADB programs aimed at moving from urban risk to national resilience (Keen & Bryar 2018:3).

Therefore, regional governance here has an essential role to play, as regional entities working in cooperation with local, national and international levels are key to addressing in a comprehensive manner growing land and water tensions associated with climate change and human mobility. This approach taken through the scope of urbanization emphasizes the urgent need to consider regional governance as key in future policies and frameworks addressingurban–rural challenges associated with climate-induced migration

in the region. Such an approach is echoing the conclusions of some preliminary results directly derived from the most recent research on land and climate-induced human mobility in the Pacific region from both political science and law perspectives (Mayer 2013; Cosmin 2017; Gharbaoui & Blocher 2017, 2018).

Is the regional agenda on urbanism an opportunity to address climate-induced human mobility and associated land challenges? It would be essential to further develop research focusing on the need for future policies on human mobility as adaptation strategy in the Pacific to include this essential dimension and integrate the regional agenda on urbanization which is a new opportunity to respond to the challenges related to human mobility and climate change in the region.

8.3.8 Regional Cooperation on Land Security - Principles of Land Management and Conflict Minimization (LMCM)

Evidence-based research could be a starting point to support current developments in land management and conflict in the region and ensure that it is considered within frameworks and discussions on climate change and human mobility in the region. This is particularly relevant in a context where the main initiative around land security regionally undertaken by the Pacific Islands Forum Secretariat (PIFS), "Land Management and Conflict Minimisation Project" (LMCM), endorsed by the Forum Regional Security Committee and the Forum Officials Committee in 2006, did not include the issues of climate change and human mobility and has not been inserted into regional frameworks. As a result, there is no regional framework on land governance in the Pacific that is comprehensive and inclusive of tenure security and cultural aspects of customary land tenure in the context of climate change and climate-induced human mobility.

LMCM aims at understanding inter-linkages between land management and conflict minimization combining approaches related to conflict prevention and economic development. In 2008, this initiative has resulted in 10 sub-projects reports all drawn into a synthesis report focusing on "Improving access to Customary Land and Maintaining Social Harmony in the Pacific".[47] The report resulted in 12 guiding principles and an implementation framework providing governance in land management and planning to the Pacific Island Forum States and at the same time promoting an approach to land that would minimize land-related conflicts in the region.

This initiative reflects on the first important regional efforts aiming at inserting concerns on customary land tenure into conflict prevention tools at an institutional level. It is also the first time that customary land tenure is officially associated with environment and conflict within a regional framework. It is essential to ensure that adaptation strategies to climate change include customary land tenure as the unique unifying cultural elements of the region inherited through ancestral local tradition. However, in the framework of this research, it is interesting to observe that the LMCM initiative includes only one report linking environment and land ("Environmental Causes of land-based conflict"[48]). Furthermore, the review on environment and land includes only four countries in the region, namely Fiji, Solomon Islands, Tuvalu and Vanuatu. The LMCM initiative mainly takes an approach related to conflict prevention and enters the framework from a security perspective. Therefore, the land–environment–conflicts nexus started to be considered regionally but there is a strong need to develop a regional implementation framework and guidelines including the land–environment–migration nexus and incorporating human security issues associated with local adaptation strategies.

Since the Australian government developed its own "Making Land Work" framework for the Pacific, LMCM has not been extended to current issues relevant to climate change, human mobility and tenure security. LMCM was partially funded by AusAid and did not get more funding after "Making Land Work" was founded. Since then, Food and Agriculture Organization (FAO) has been working directly with countries individually though Secretariat of Pacific Communities (SPC) to promote land tenure principles existing in the "Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security". The ANU regional meeting that took place in the beginning of 2018 on "Land and urbanization as regional issue" was an opportunity to promote LMCM's next stage and stakeholders wanted to bring the climate change and human mobility nexus in the regional agenda at this occasion. However, it was not pushed forward, and future frameworks will have no choice but address this dimension. Furthermore, there is a strong need to extend the scope of current similar regional efforts and to develop region-specific adaptive frameworks that will be necessary to deal with the future threat of climate change in the region.

8.3.9   The Role of the Pacific Islands Forum (PIF)

The Biketawa Declaration (2000) and the Human Security Framework for the Pacific (2012- 2015) highlight the need to address the underlying causes of conflict as key conflict prevention strategy. In this context, planned relocation as a climate change adaptation strategy and associated land issues are the main underlying causes of conflict. The Council of Regional Organizations in the Pacific (CROP) and its Land Resources Working Group is the regional coordinating body on land issues. The Group, specialising in technical components related to and use policy, agriculture and forestry, still needs to improve its security and human rights axis.

The PIF aims to play a new role by strengthening the human rights and security components of the CORP Working Group on Human Rights and by introducing the link between human mobility and the environment through the creation of a multi-program internal working group (e.g., working group including conflict prevention, human rights, gender, disability, economic governance, natural resource management). This would suggest the participation of a representative of the FIP in the CORP Working Group.

Given that land reform is currently a priority for number of FIP members, it is urgent to promote and support an appropriate set of regional guiding principles to help governments prevent the escalation and emergence and emergence of land conflicts associated with climate-induced mobility. To this end, the CROP Land Resources Working Group provides an appropriate mechanism for coordination. The evaluation of policy initiatives related to land management and conflict minimization at the regional level emphasizes the preponderance of the Pacific Islands Forum (PIF). The PIF is now trying to bring land management back into the Forum's security program while developing the LMCM project by adding new dimensions based on the current challenges facing the region.

8.4   Conclusion

An increasing number of authors argue for regional governance to be a potential successful pathway to address climate-induced human mobility in the Pacific. This argument echoes some of the results of this study. Indeed, results reveal that drawing a regional model of governance is challenging in the context of the Pacific region, where

the level of resilience to climate change is diverse and varies according to the geographical and political context. Furthermore, the high diversity of land tenure systems and customary-based mechanisms is particularly complex. The regional level of governance offers particularly interesting alternatives for dealing in a contextual, politically and culturally sensitive manner with adaptation to climate change and human security. There is a growing international recognition that regions are best placed to engage with culturally inclusive approaches to solving new security challenges involving climate at the front line. Furthermore, in regions such as the Pacific, models of governance, including both formal and traditional governance mechanisms, are essential to address climate change adaptation in a sustainable manner. Developing a model of governance at national level would not be exportable to other Pacific countries, as each country holds specific features related to their particular political, security and customary systems. Most innovative approaches addressing new security threats associated with climate change in the Pacific region should be addressed at the regional level of governance, as it is the most appropriate form of governance that would at the same time deal with security in an efficient way while allowing some space for the preservation of Pacific cultures and traditional systems specific to the region. Gradually, anticipative measures, including retreating from coastal areas and development of population relocation preparedness strategies, have become a priority for the region (SPREP 2010: 5). At the regional level, relocation has been identified as a main priority for climate change adaptation since 2012, alongside food security, crop improvement, water security and resilient infrastructure (AUSAID 2012). However, human mobility as an adaptation strategy to climate change should be a last resort solution as underlined by the 2011 Nansen Principles, stating that all efforts should be directed towards preventing affected people to move, failing which, efforts should be towards assisting and protecting the people displaced (Nansen Conference, principle 4). The Pacific regional consultation under the Nansen Initiative concluded that it was particularly the case in the Pacific and that planned relocation should be considered if no option is left to the affected population. The Nansen Initiative was undertaken following the adoption of paragraph 14 (f) of the Cancún Outcome Agreement in December 2010 (COP16), recognizing climate change-induced migration, displacement and relocation as an adaptation challenge. The Nansen Initiative was developed based on the outcome of the June 2011 Nansen Conference on

Climate Change and Displacement in Oslo, with the aim to address the need for a more coherent approach to the protection of people displaced across borders in the context of disasters and the effects of climate change.

Results of this study reflect on a central argument around the need to find a middle ground between international approaches, that are difficult to practically implement, and restricted national options. Regional governance provides a promising venue to address specific challenges and cultural features the regions hold. In the same line, this research suggests that land management in the context of climate-induced relocation in the Pacific would highly benefit from a strong and coherent regional framework that would support national and local governance specific to each country. Customary land tenure processes (directly conditioning water access and security), specific to the region and their implications for climate-induced human mobility, would be better addressed by enhancing and adapting already existing frameworks around land and conflict prevention in the region.

This option would avoid the bias of disconnection between international discourse and regional specific challenges the region has been dealing with for decades. Regional governance also allows preserving ownership on the, often recuperated, issue of climate change. This argument has been already strongly advanced specifically on environmental migration by authors such as Benoit Mayer (2013), who underline the role of regional governance as key to avoiding the disconnect bias. Mayer (2013) also argues that regional organizations should be considered major players in coordinating and planning policies on forced displacement and climate change, as governance of environmental migration is most likely to succeed within a regional framework. Similarly, Angela Williams (2008) considers regional entities as able to provide an "alternative system" to states acting in isolation: "[a system] may be better coordinated by way of regional agreement, operating under an international umbrella framework" (517). Mayer (2013) also argues for a multilateral discussion and "a home-grown" legal approach of environmental migration in the Asia-Pacific that would strengthen the region's growing diplomatic roles and demonstrate their ability to develop liberal forms of transnational governance. Regional organizations, allowing regional ownership of climate action, multi-stakeholder cooperation across countries and promoting policy coherence are increasingly considered, in both the literature and at policy level, as best placed to assist governments in providing

policy support on climate change and human mobility (Barnett & Webber, 2010; African, Caribbean and Pacific Group of States -ACP- 2011; Blocher & Gharbaoui 2017).

Multi-level cooperation placing the regional level as "umbrella" is key to coordinate policy on climate change and human mobility and local coordination is essential to avoid injustices. The Ministry of Lands and the Ministry of iTaukei affairs (overseeing provincial councils headed by *Roko Tui*, the provincial chief that have the responsibility to protect the land and organise the interests of indigenous Fijians) are well-represented and have a key role in the Fijian National Guidelines on Planned Relocation. This can be considered as good practice and could be replicated in regions of the world that face similar challenges while approaching land through both collective and individual ownership systems. However, the role of the National Relocation Taskforce Committee (NRTC) present in the draft of the National Guidelines is also central but disappeared in the second version that has been published in 2018 (GoF, 2018). The reasons for this suppression should be investigated and more research is needed on that particular area as our study revealed that there is no viable model of planned relocation governance in the Pacific without local coordination as customary land mechanisms and arrangements are specific and highly vary according the various contexts in the region.

CHAPTER 9
Discussion on the thesis results

9.1 Introduction

This chapter analyses some of the main results of the study and some of the implications and lessons in the context of the theoretical framework of hybridity and plurality.

By critically engaging with the concept of hybridity we have observed that literature on pluralism reveals the "nuanced approach" that includes using norms from the custom where it works best and formal law where it is more relevant. It also contests the binary oppositions between customary (traditional) and state (modern) law. The nuanced approach is framed around terms such as "synergies," "tensions," "complementarity," "integration," "legal engineering," "legalscape," "co-operative pluralism" including the "complex interplay between the custom and the law" resulting in a new "blending", "synthesizing" customary and imported common law (see for example Mc Lachan 1988, Guo 2011, Corrin 2009, Forsyth 2006, Forsyth 2009, Brown 1999). The literature on pluralism applied to the context of environment and livelihoods also provided some interesting insights to address those questions raised when undertaking a nuanced approach to question the use of both the custom and formal governance in the Pacific (see for example Pulea et al. 1987, Kwa 2009:4, Kuemlangan 2004, Kuemlangan et al. 2003, Veitiyaki et al. 2003, Hviding and Baines 1994).

A particular emphasis will therefore aim to identify the interactions including tensions and synergies and contribute to the existing literature while providing some conclusions on how can planned relocation be conceptualized as an adaptation strategy to climate change by using pluralism as an aspect of hybridity.

Is the concept of hybridity suitable to address interactions between state and customary-based governance of climate-induced planned relocation in the Pacific? We have explored the concept of pluralism as an aspect of hybridity. Pluralism can have varied impacts on governance outcomes, depending on the nature of the relationship between the governance systems involved. We have observed Bavinck et al. (2014) typology on such legal pluralist relationships that has been explored to critically discuss the hybrid approach to governance and its suitability to address the governance of planned relocation
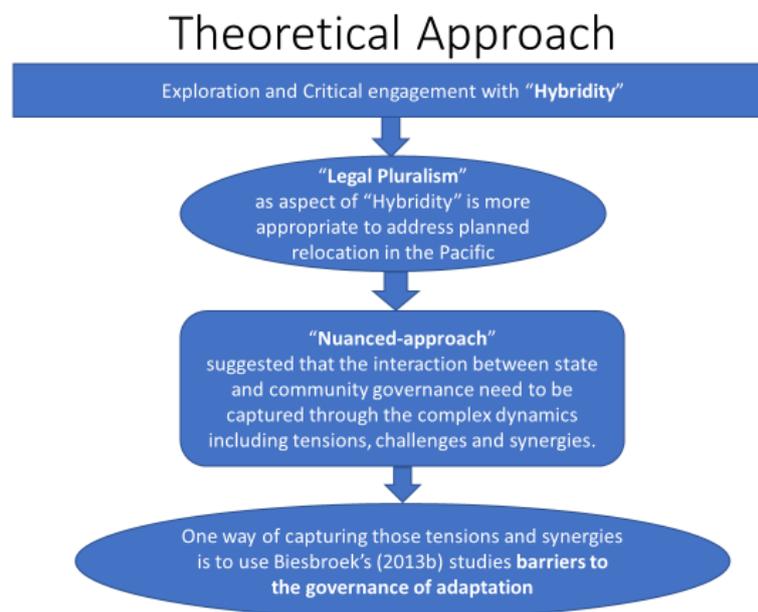
as adaptation strategy to climate change in the Pacific. Our conceptual analysis suggests that hybridity can be refined and adjusted to analyze the dynamic interactions between state and traditional governance in the Pacific. While it is a static concept it can be reframed to explain the interaction between state and community governance to capture the complex dynamics including tensions, challenges and synergies.

An approach within the broader hybridity discourse which I have been focusing on is pluralism because of the way it provides for a more nuanced approach to address interactions between customary and state-based systems in the Pacific. In the context of relocation, customary systems offer flexibility and reflect what is best suited to deal with land acquisition in the Pacific today. However, it can also be problematic when, for instance, villagers that had been absent from their land and villages of origin for a considerable period of time lose their rights to land that had been claimed by other members of the kin group. This is likely to create tensions between current and old members of the clan (Kwaiga 2009), this is, for example, where applying formal law could be useful. Therefore, pluralism provides a broader scope to address the dynamic relationship between customary practices and formal law in the Pacific. Indeed, many authors on pluralism agree that the relationship between customary and formal norms are dynamic and in constant evolution. This allows us to critically engage with the concept of hybridity in a dynamic way.

Furthermore, discussing the results will be addressed taking both a policy and social perspective as explained in Chapter 4 on theoretical approach of the thesis. At the social level, observations on historical and recent case studies on planned relocation in the Pacific region and Fiji provided by chapter 5 have been supplemented by our community field study results (Chapter 6). At the policy level we have reviewed in Chapter 7 the different policies and practices that address human mobility or planned relocation as adaptation strategy to climate change in the region. Displacement risks and mobility management have therefore been addressed at the regional, national and local levels. This review has been conducted on the basis of a systematic desk study of regional, national and local levels of governance.

9.2   Planned relocation studied through a policy perspective

The conceptual framework explored on hybridity and the use of pluralism as aspect of hybridity through the "nuanced-approach" suggested that the interaction between state and community governance needs to be captured through complex dynamics including tensions, challenges and synergies. One way of capturing those tensions and synergies is to look at theoretical frameworks that study barriers to the governance of adaptation such as Biesbroek's (2013b) theoretical framework we examined in previous chapters.

Theoretical Approach

Exploration and Critical engagement with "**Hybridity**"

"**Legal Pluralism**"
as aspect of "Hybridity" is more
appropriate to address planned
relocation in the Pacific

"**Nuanced-approach**"
suggested that the interaction between state
and community governance need to be
captured through the complex dynamics
including tensions, challenges and synergies.

One way of capturing those tensions and synergies
is to use Biesbroek's (2013b) studies **barriers to
the governance of adaptation**

The study of planned relocation as policy process was approached through each of Biesbroek's four analytical lenses: (i) governance as problem solving, ii) governance as competing values and interests, iii) governance as institutional interaction, and iv) governance as dealing with structural constraints. For each of those lenses, we aimed to analyze our data by trying to identify possible sources of barriers and possible ways of intervening illustrated by examples from the relocation process.

Therefore, in the table below (Figure 73), we discuss both "if" and "how" each analytical lens frames barriers to planned relocation as an adaptation strategy to climate change taking the specific context of Fiji as case study. The ultimate aim would be to contribute to the literature and provide some conclusions on "How can planned relocation be

conceptualized as an adaptation strategy to climate change using Fiji as case study" that is our main research question. The table below illustrates possible ways of intervening and finding synergies to the barriers identified notably on governance as institutional interaction (such as Institutional misfits across scales, failing or unshared institutional rules and balances) deriving from the "realist" governance philosophy. This will be further developed here as this type of interaction is particularly relevant to our study.

In the context of planned relocation as adaptation in Fiji, examples of issues and barriers identified could be institutional and this undermines support for planned relocation. This includes the disconnect between climate change policies and realities on the ground related to forced mobility. To add to the challenges are political games by governments around the Pacific to attract funding that does not necessarily trickle down to people affected by climate change and planned relocation. More relevant to our study, barriers to institutional interaction directly reflects on the disconnect between state-based and customary systems in the context of planned relocation (referring to the rule of law and rule of fact debate for example) as well as the disconnect between institutional rules and customary systems (see debates on legal pluralism). The thesis has shown that the relationship between reorganizing governance and law around the custom and formal mechanisms is quite challenging. There is a lot of give and take and some aspects need to remain in both systems while others need to be adjusted. This is central in the context of planned relocation where people's stories in affected villages revealed that there is a strong disconnect between realities of experinces on the ground and institutional stakeholders involved in the relocation process. Results showed for example that the lack of information regarding the use of land in both Matawalu and Tukuraki villages was the most important issue in their relocation. In the context of Matawalu, it was obvious that the lack of information from UN-Habitat was causing tensions amongst the community. Another example relates to the lack of communication between customary and other stakeholders when it comes to land acquisition in the context of planned relocation. Often the different perception in relation to relocation was not shared and compromised. In the context of our case studies, talanoa and traditional methods of negotiation of land was a central means of engagement but even then, its effectiveness was of often questionable in as far as the people were concerned.

The role of chiefs and land owners is key to the local process of relocation. One of the

questions in the duality approach is how chiefs and land owners are supported and represented in national and regional planning. For example, in Fiji's national guidelines for relocation, how are chiefs represented and supported by the iTaukei Ministry? The Ministry of Lands and the Ministry of iTaukei affairs (which overseesprovincial councils headed by Roko Tui, the provincial chief that have the responsibility to protect the land and organize the interests of indigenous Fijians) are well-represented and have a key role in the Fijian National Guidelines on Planned Relocation. While this can be considered as good practice and could be replicated in other regions of the world that face similar challenges, the other issue is whether the ministries involved actually effectively represrent to the voices of the ordinary villagers at the grassroots level. A further challenge was that the role of the National Relocation Taskforce Committee (NRTC) which had a good representation of stakeholders including villagers had been eliminated in the second draft of the National Guidelines published in 2018 (GoF, 2018). The reasons for this is not clear and the danger is that planned relocation governance without local coordination and understanding of customary land mechanisms and arrangements relocation plans can be undermined and even derailed.

The governance of relocation, as the research has shown, is quite complex with competing as well as accommodating narratives involving problem solving, competing values and interests, institutional interaction and dealing with structural constraints. These are interrelated and at the same time potentially conflicting given the multiple social, economic, cultural and political variables involved. Thus, it would be useful here to relook at the governance schema by Biesbroek's et al. (2013b) as shown in Figure 73 and how it applies to the Fiji climate change relocation situation.

	(i) Governance as problem solving	**(ii) Governance as competing values and interests**	**(iii) Governance as institutional interaction**	**(iv) Governance as dealing with structural constraints***
Governance Philosophy	*Optimist*	*Realist*	*Realist*	*Pessimist*
Possible source of barriers	Human error, organizational and management errors.	Diverging frames, ideologies, and preferences conflicting perspectives on problems and solutions	Institutional misfits across scales and sectors. Failing, lacking, eroding, or unshared institutional rules, checks, and balances	Structural error, blurred by the interactive complexity of the system. Decoupling between temporal, spatial and functional components of the system
Examples from planned relocation as adaptation	Lack of knowledge for decision making, lack of resources, lack of skills, lack of policy instruments for implementation. In the case of planned relocation, this include lack of awareness on climate change from the community and chiefs, lack of support to manage planned relocation from external stakeholders and governments, lack of support on implementing traditional knowledge on the ground. Lack of support to facilitate land acquisition process through traditional methods such as *talanoa*. Issues relating to translating customary terms in English (see debate on legal pluralism)	Disagreement on the key problems and solutions, conflicting (competing) interests and policy agendas	Institutional voids to support planned relocation, Low political leadership, policy games. Disconnect between Climate change policies in Fiji and realities on the ground related to forced mobility. Political games to attract funding that doesn't go to people affected by climate change and planned relocation. Disconnect between state based and customary systems (rule of law and rule of fact debate), Disconnect between Customary chiefs and iTaukei Ministry. Unshared institutional rules between customary and formal systems (see debates on legal pluralism)	Short-termism favored over long term solution to climate change, changes in political context in Fiji, Technocracy in Government. Issue faced by sites (category 3) identified as vulnerable but with no consideration for relocation by the government. This shows an example of governance focus on reactive approach rather than preventive approach to relocation denoting a short termist approach to climate change (related to capitalist approach oriented toward short terms goals, political instability in Fiji that doesn't allow for long term prospect on climate change and financial restrictions which is related to the whole debate on climate finance.)
Possible ways of	Information sharing, capacity building, developing capacity amongst communities.	Develop a collaborative institutional model inspired by "nuanced approach" emerging	Establishing incentives for harmonious and coherent political leadership based on	*Expose the capitalist system as structurally flawed and reduce dependence on the system. Promote an*

	(i) Governance as problem solving	(ii) Governance as competing values and interests	(iii) Governance as institutional interaction	(iv) Governance as dealing with structural constraints*
intervening	Bridging of knowledge and skills between customary chiefs, communities and formal institutions	from "pluralism" as aspect of hybridity. This collaborative institutional model would be addressing land tensions associated to relocation as adaptive response to climate change impacts designed for use by Pacific institutions with the idea to combine indigenous and formal governance mechanisms to address tensions associated to land in the context of climate-induced relocation	legal pluralism philosophy	*approach to planned relocation that doesn't rely on one system inspired by "legal pluralism" as possible ways to overcome structural issues and challenges of state-based governance, formal and common law mechanisms. Use the opportunity existing in Pacific states to benefit from the advantages of using a flexible collaborative system at the cross-road between customary and state-based weberian approaches.*
Examples from planned relocation as adaptation	Collect more knowledge, strengthening research on ways to frame **collaborative models** governing planned relocation.	**"Planned Relocation Working Group"** (PRWG) aiming to ensure the sustainable relocation of affected vulnerable villages in Fiji (Fiji Relocation Guidelines 2018). In carrying out its duties, the PRWG will ensure that a transparent and effective multiparty governance system is followed and that the rights and interests of the Fijian local community are respected. The role of the Ministry of iTaukei Affairs (MTA-) in this working group is paramount, reflecting the interests of customary authorities during three important stages of planned relocation including; Phase 1 (Facilitating Connection with Villages Consultations), Phase 3 in	**Regional governance** could have a leadership role here. "Multi-level cooperation" placing the regional level as "umbrella" could be explored to coordinate policy on climate change and human mobility and local coordination is essential to avoid injustices. Regional tools already existing such as the Strategy for Climate and Disaster Resilient Development (SRDP), regional initiatives on Land (LMCM), the regional agenda on urbanism, are all promising tools could be further developed to address planned relocation as adaptation to climate change using a nuanced approach through the lens of	Promoting collaborative models of relocation with an emphasis on community-driven relocation. Promoting approach such **as Fit-For Purpose approach** with less reliance on one system of land management. Promoting a combined approach to relocation. Reinforce the role of the Native Land Commission (NLC) and its collaboration with customary chiefs and local land owners within the Workforce as they hold a key role in the relocation process as demarcation of land and maps that are key to avoid conflicts are based on land ownership knowledge. Therefore, the role of Ministry of iTaukei Affairs (MTA) and iTaukei Land & Fisheries Commissions (TLFC) appointed under the provisions of the iTaukei Land Act

	(i) Governance as problem solving	(ii) Governance as competing values and interests	(iii) Governance as institutional interaction	(iv) Governance as dealing with structural constraints*
			"pluralism" essential to regional governance in the Pacific.	
Examples from planned relocation as adaptation	Collect more knowledge, strengthening research on ways to frame collaborative models governing planned relocation.	which "iTaukei Lands and Fisheries Commission" (TLFC) within the MTA identifies new sites and Phase 5 during which the MTA safeguards social and cultural values as well as village needs. The Ministry of Foreign Affairs and International Cooperation - MFAIC – and the Climate Change Division-CCD-) are responsible for conducting Phase 2 relocation, including an assessment of the vulnerability to climate change and the emotional well-being of the community in the context of the tensions caused by relocation. The role of the **National Relocation Taskforce Committee (NRTC)** would also be central but it disappeared from the National guidelines from 2018.		(TLA) that have defined ownership boundaries on the ground should be effectively implemented and reinforced within the Taskforce and Working Group.
*In sociology, **structural constraints** are understood as the various political, economic, social and cultural factors limiting individual decision-making ability. These **constraints** are opposed to human agency, defined as the capacity of an individual to act independently and make any choice in a given **structure**.				

Figure 73: Three dominant philosophies in the study of governance: "the optimist", "the realist", and "the pessimist philosophy" observed through the scope of Biesbroek's et al. (2013b) four analytical lenses for studying barriers to the governance of adaptation adapted to the study of planned relocation in Fiji.

Our review of the literature revealed two other conceptual models studying relocation as policy process of relevance to our study: The "managed-retreat" conceptual model (Hino 2017) and the "conceptual model of government action or inaction on planned relocation of vulnerable populations" (Mortreux et al. 2018). The "managed-retreat" conceptual model (Hino 2017) presents an interesting framework to analyze planned retreat and the role of political will in the process.

Matawalu and Tukuraki case studies showed that the affected population in both communities were willing to move and that the government supported the move which is, according to Pill (2020) but also Hino (2017) in his "managed-retreat conceptual model", when the best possible outcome for a relocation project is achieved (see chapter 3). Mortreux et al. (2018) confirm this tendency in the "conceptual model of government action or inaction on planned relocation of vulnerable populations" (see chapter 3) by evaluating uneven government responses to communities threatened by environmental change and their outcomes. The later model mentions potential for "trapped populations" but only in the case of government inaction which is contested by our observations. Hino (2017) theoretical model doesn't include this dimension and lack nuances when addressing conditions for success of relocation projects in regards to our results. Indeed, in our observations even when residents initiate the move with mutual agreement and political support, there might still feel that "risk is intolerable" and that the relocation outcomes are rather negative if the relocation includes "staggered" relocation resulting in community disaggregation and if land acquisition doesn't include traditional negotiation methods between customary chief(s), traditional authorities and local land owners. The analysis of "staggered relocation" discussed above as obstacle and barriers in the relocation process will be presented in the next section studying relocation as social experiment through an analysis of our results within the "immobility" framework.

9.3   Studying planned relocation as social experiment

The literature review emphasized on the growing body of scholarly work on "trapped" populations that integrates immobility within the "mobility paradigm". We have also identified gaps in this literature that lacks empirical data and case studies that incorporate "immobility" in their research design. Therefore, we have chosen to approach the

relational dynamics of mobility through the spectrum of "(im) mobility" that also echoes our focus on barriers and enablers to relocation present all through our study. By studying planned relocation from a social perspective, our study aims to address those dynamics and hopefully bring more empirical evidences to the environmental migration scholarship. The results of our field study will be analyzed in the present chapter through the scope of the "aspiration-capability framework" (Carling 2002). This theoretical approach is particularly relevant for studying mobility and immobility as it provides the conceptual tools to analyze processes that lead to both mobility and immobility outcomes. We will observe our results through the scope of this framework in the next sections and provide some conclusions on How to conceptualize planned relocation as a social experiment using Fiji as case study. Before exploring results on "immobility", we will first go back to the concept of "Non-Economic Loss and Damages" (NELD) explored in chapter 3 where we have discussed Serdeczny (2019) categories of NELD and reviewed Boyd (2017) and Pill (2020) typology suggesting types of non-economic loss & damages in planned relocation identified from the literature. We will use our results to discuss those frameworks.

9.3.1   Adaptation and loss & damages (L&D)

As observed in our literature review, the relationship between L&D and adaptation has been extensively studied in Boyd and al. (2017) that identifies a typology of four perspectives with actions, research, and financing appropriate under each perspective (see chapter 3). Based on that typology (Boyd 2017), Pill (2020) suggests types of non-economic loss & damages in planned relocation identified from the literature. His study also shows that planned relocation is beyond an adaptation response; it blurs into adaptation and L&D debates. Pill's theoretical framework describes L&D and adaptation visualised as a spectrum for relocation projects (see chapter 3).

More elements can be added to Pill's theoretical framework which could add to the scholarly debate on adaptation and L&D in the context of planned relocation. Indeed, *Matawalu* and *Tukuraki* case studies revealed that even if the relocation project is driven by the community, planned ahead, using a participatory approach where the community is consulted and taking place within institutional land ownership; adaptation might still be unsuccessful and a series of non-economic losses might still subsist caused by a range

of drivers:

(i) *Matawalu* case study showed, for example, that even if the move was taking place within institutional land ownership it was crucial that land acquisition was done in negotiation with a land owner belonging to the same *Mataqali (*clan) and through a traditional method of dialogue called *"talanoa"*. The customary chief underlined that land negotiation wouldn't have been facilitated if the negotiation didn't occur under those particular conditions. Therefore, nuance needs to be brought to arguments around relocating within same communal lands as the role of the customary chief, the mode of land negotiation and the customary belonging of the destination community are all crucial to the final outcome of relocation. Pill's model did not include the crucial dimension of land acquisition dynamics and the role of customary chiefs and land owner in the process.

(ii) Another crucial aspect is the absence of mention of the implications "staggered" relocation causing "immobility" and leading to "trap" part of the community in the site of origin could have on community cohesion as essential non-economic L&D. Our case studies showed that part of the community considered as "trapped" are individuals that had the desire and the need to move but not the ability to do so (see conceptual framework on "trapped populations" and "immobility" below). The tension between those who will move and those who remain highly affects community cohesion and leads to community disarticulation which is the most complex part of the displacement and reconstruction process (Campbell 2010). Indeed, the centrality of social aspects of relocation was already emphasized by Perry and Lindell (1997) reaffirming that "special attention should be given to social and personal needs of the relocatees {…} (and that) social networks need to be preserved" and Lieber (1977) that developed a historical critique of staggered relocation. The preservation of community cohesion in relocation is particularly crucial in the context of the Pacific region as the loss of community belonging is considered as the most critical non-economic L&D for Pacific communities.

The next section will analyse more in depth the concept of "staggered relocation" explained above and attempt to bring some insight on "immobility" within the context of planned relocation as adaptation to climatge change in the Pacific. For that purpose, we will study and discuss our results through the aspiration-capability framework from Carling (2002).

9.3.2   The "aspiration-capability framework" (Carling 2002)

This study has shown that while planned relocation as adaptation strategy to climate change may work in some situations, it hasn't worked in others. There are groups, who by virture of their social circumstances such as lack of land for relocation and lack of resources, remained trapped and immobile. As observed in the literature review (Chapter 3), the "aspiration-capability framework" (Carling 2002) is a conceptual approach very relevant for studying mobility and immobility as it provides the conceptual tools to analyse processes that lead to both mobility and immobility outcomes. In Carling's model, 'aspiration'and 'ability' to migrate are put in perspective. The 'aspiration' to migrate is "a conviction that migration is preferable to non-migration; it can vary in degree and in the balance between choice and coercion." (Carling, Schewel 2019:2).
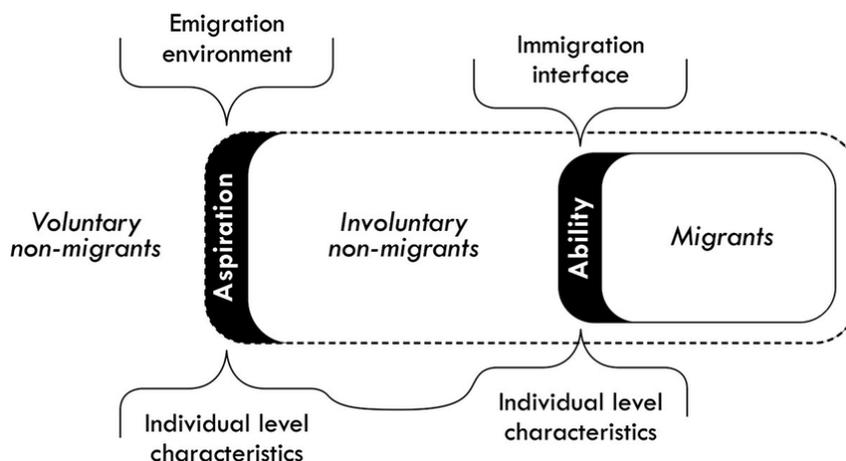

Figure 74: Aspiration/Capability Model (Carling 2002)

The model places the possibility of involuntary immobility at the centre of the migration process and distinguish between people's aspiration to migrate and their ability to do so (Figure 74 above). As stated by Carling;

The essence of what I have called the 'aspiration/ability model' is that migration first involves a wish to migrate, and second, the realization of this wish. By considering these two steps separately, I believe that it is possible to explain several features of contemporary migration and non-migration which remain unexplained by traditional theory (Carling 2002:2).

This involves a series of barriers and constraints which each potential migrant is differently equipped to overcome. Carling's model focusses on migration as form of human mobility. It is interesting to use this model and draw some lessons on planned relocation as form of human mobility resulting from climate change. In the context of planned relocation, barriers and constraints would impact the whole community and not particular individuals. Among those who aspire to migrate, which was the majority of people interviewed, some will also have the ability to do so and some will not. In the case of Matawalu for example, some households will be selected to move and others will be forced to remain in the origin site. Carling's model recognizes those two categories; those who have aspirations to move but lack the ability to do so called the involuntary non-migrants and the voluntary non-migrants, who stay because they believe that non-migration is preferable to migration. In the case of Matawalu, only two people interviewed (husband and wife from the same household) were voluntary non migrants as they expressed the will to remain in their site of origin and not move to the new site. According to Carling's model, aspiring to migrate is a precondition for trying to migrate, and overcoming the barriers to migration is a precondition for actually migrating.

According to Carling, aspiration to migrate can be analysed at two levels; macro and micro levels. Both levels place the social construct at the center of the analysis:

Why a large number of people wish to emigrate? This encompasses the social, economic and political context which is largely common to all members of the community. A vital part of the emigration environment is the nature of migration as a socially constructed project. While actual migration takes the form of a demographic event, people who consider it as an option relate to migration through the meanings it is embedded with. The second analytical approach to aspiration is the micro level question of who wants to migrate and who wants to stay. Individual characteristics such as gender, age, family migration history,

social status, educational attainment and personality traits are likely to provide some answers. These differentiating factors also include relations between individuals which act to encourage or discourage migration. Exactly how individual level factors matter, depends on the particular social context.

Social construct is therefore central to explain aspiration to move. This is particulary the case in the context of planned relocation in the Pacific as attachment to land and its relation with community cohesion as essential NELD makes the nature of relocation primarily a socially constructed project. Explaining how the emigration environment influences aspiration to move relates, in Carling's model, to the historical, social, economic, cultural or political setting that encourages migration or not. In the case of planned relocation in the Pacific, our historical overview in Chapter 6 revealed how important historical settings are in understanding planned relocation. In Carling's model, people relate to destination places through meaning and this has a strong influence on aspiration to migrate or not. For instance, Carling explains that there could be misrepresentation of the destination areas strongly influencing wish to migrate;

> {…} an area of emigration can be marked by unemployment, drought or violence, but people's wish to emigrate is a result of their own understandings of these problems rather than a straightforward function of unemployment rates and precipitation figures.

In the context of our study, we have observed that aspiration to move was strongly linked to the perception of the site of destination as safer than their site of origin. The role of perception used in our research design is therefore key here. In the case of Matawalu, moving to higher grounds meant for the people that they would not be affected by flooding as they used to and therefore, they would be protected from climate change impacts. It is interesting to note that other factors that could threaten their safety such as landslides for example were not mentioned. Another crucial aspect influencing the aspiration to move was the possibility to preserve an access to the site of origin. As seen in precedent chapters, this relates to the various social, cultural and spiritual components of attachment to land under customary tenure. Therefore, the representation of the destination site and aspiration to move was very much influenced by the possibility to move while preserving an access to the site of origin.

In Carling's model, ability to migrate can also be analysed at two levels:

> First, the macro level immigration interface encompasses all the available modes migration, with associated requirements, costs and risks. These are primarily the direct or indirect results of restrictive immigration policies. Second, there are individual level characteristics which differentiate between people in their ability to overcome the barriers to migration. Again, factors such as gender, age, family migration history and social status are likely to affect who will have the ability to realize a wish to migrate.

The macro level analysis of what Carling calls the "immigration interface" refers to the structural frame of opportunities and barriers within which potential migrants can move. As it was the case for the policy analysis of our study, the focus on barriers to move are once again relevant to understand relocation as a social reality. Overcoming barriers to move in migration takes a different meaning when addressing relocation. Relocation of communities leaves little room for individual level characteristics differentiating people in their ability to migrate in Carling's model. In the context of our study, barriers to move at the individual level will be in large part determined by the ability of the community, the chief and land owner(s) to negotiate access to land and modalities associated with it in a future destination site. The case of Matawalu relocation for example, shed the light on the negative impacts of staggered relocation and the complexity of maintaining community cohesion when only a portion of the community is relocated.

Carling summarised the aspiration/ability model using its fieldwork data collected in Cape Verde, placing Cape Verdeans interviewed within each category developed in the model: *Voluntary non-migrants*, *involuntary non-migrants* and *migrant*s. In the context of our study, those three categories developed in Carling's model could be identified as well and transposed to the relocation process as follows:

(i) In Matawalu, only two *voluntary non-relocatees* were identified as described above. A husband and wife from the same household expressed the will to remain in their site of origin and not move to the new site, they had no aspiration to move and were not part of the families selected to move at the time of interviews.

(ii) *Involuntary non-relocatees* are the rest of the community of Matawalu that pronounced aspiration to move, but not the ability to realise this wish by not being selected for relocation to Kavula. Directly deriving from the observation above, and after observing the cases of Lami, Suvavou and Qauyia villages, our study also revealed that planned relocation as an adaption strategy to climate change could leave a portion or an entire village trapped in sites assessed as 'at risk'. Therefore, our field study also revealed that *Involuntary non-relocatees* could also relate to communities that do not have the means to relocate and are 'immobilized' at vulnerable sites assessed as 'hot spots' or at risk by government but not considered for relocation; and those communities perceiving themselves as at risk but not assessed as such and not considered vulnerable enough to be relocated.

(iii) *Relocatees*; those who have had both the aspiration and the ability to migrate, will be, in our case, the portion of the community that will be able to move to the new site in Kavula and the whole community of Tukuraki that was able to relocate as a whole.

Carling's model was useful in providing theoretical grounding to our analysis of relocation as a social construct. In this study, we have discussed the results in the light of Carling's model by adding new observations on "immobility" and "trapped populations"in the context of planned relocation as adaptation to climate change in a context where customary lands prevail as it is the case in the Pacific. Figure 75 below illustrates Carling's model adapted to this study and summarizes the results discussed above.

Emigration Environment

> Social construct and community cohesion around land
> Perceptions/representations of destination site as safer ground
> Strong link to origin site and possibility to access it

Immigration Interface

> Nuanced approach* based on Pluralism as aspect of Hybridity including formal and customary regulations, norms and tools used to access and negotiate land is central (ex: Talanoa, National relocation guidelines, ect,)

strongly influences aspiration to relocate

strongly influences ability to relocate

Matawalu

ASPIRATION

Voluntary non-relocatees

Matawalu, Lami, Suvavou and Qauyia

ABILITY

Involuntary non-relocatees

Tukuraki

Relocatees

Individual level characteristics

Community level characteristics are central

Barriers to relocate at the individual level will be in large part determined by the ability of the community, the chief and land owner(s) to negotiate access to land and modalities associated with it in a future destination site.

Individual level characteristics
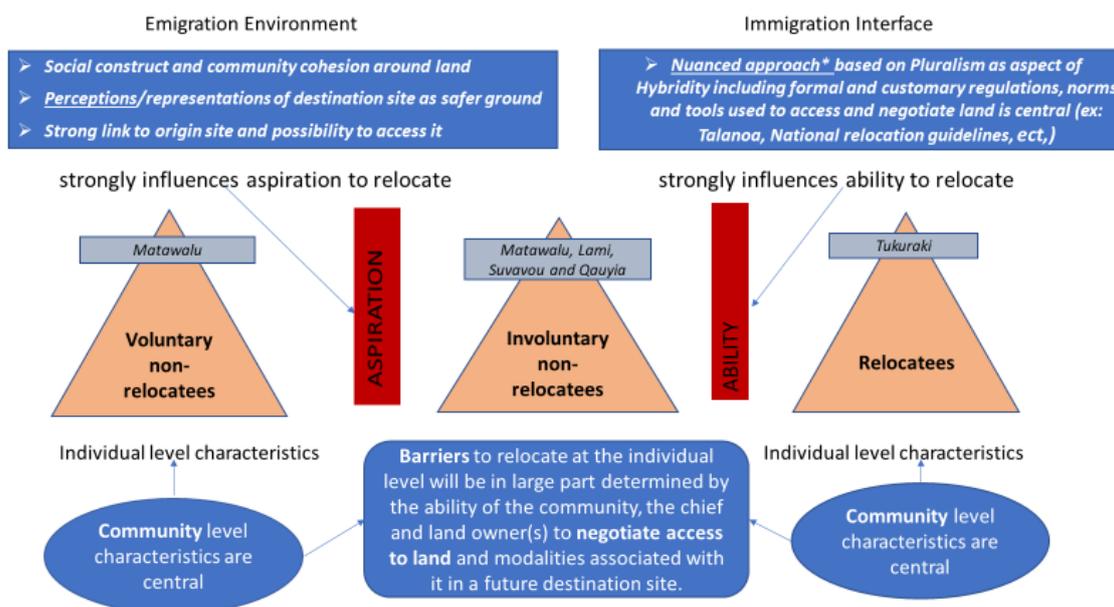
Community level characteristics are central

Figure 75: Carling's model adapted the study of planned relocation as adaptation to climate change in the context of Fiji.

9.4   Conclusion on Key Trends Identified

The study reveals research gaps as well as emerging concepts that are key in understanding challenges associated with land in the context of planned relocation in the Pacific. The "Nuanced approach" revealed by the critical analysis of the concept of hybridity and pluralism as aspect of hybridity also echoes the "Middle-Ground Approach to relocation" (Gharbaoui, Blocher 2018) combining logistical and sociological approaches to relocation and revealed in this study after addressing the concept of "sustainable development" in relation to relocation strategies mooted in current debates around land rights in chapter 3. The "Nuanced approach" has been revealed by our evaluation of the literature on pluralism emanating from our critical engagement with the concept of hybridity. This approach has been identified as central to address relocation at a political level in a sustainable way, allowing Pacific peoples to adapt to climate change while continuing to live lives they value.

Ultimately, creating opportunities for sustainable relocation in conceptualizing planned relocation would be central both at policy level and to maintain the social construct of the affected community. In chapter 3, our evaluation of "sustainable development" in relation to relocation strategies mooted in current debates around land rights presented a reflection

on what would mean "sustainable relocation" as a result of climate change in a context where customary land prevails. The "Middle-Ground Approach" was proposed, placing communities and traditional chiefs at the center of the decision-making process. Indeed, a key component of "sustainable relocation" included the need to preserve community cohesion that has been described in this chapter as essential Non-Economic Loss and Damage (NELD) threatening the viability of relocation.

The Figure 76 below summarize the main concepts emerging from this study, starting with the observation that the way land is accessed, negotiated and secured in planned relocation is central. Results from our study suggest that land acquisition based on a "Nuanced approach" emerging from the examination of pluralism as aspect of hybridity strongly echoes the need for addressing relocation through a "Middle-ground approach". Both approaches are key to determine "ability" (as defined in Carling's model) to relocate. Barriers that might undermine "ability" to relocate and therefore limit adaptation include "staggered or partial relocation" of the community to the new destination site that would leave part of the community "trapped" as "involuntary relocatees" in their site of origin and strongly affect community cohesion minimizing opportunities for sustainable relocation as opposed to" whole or full community relocation" of the so-called "relocatees" category.
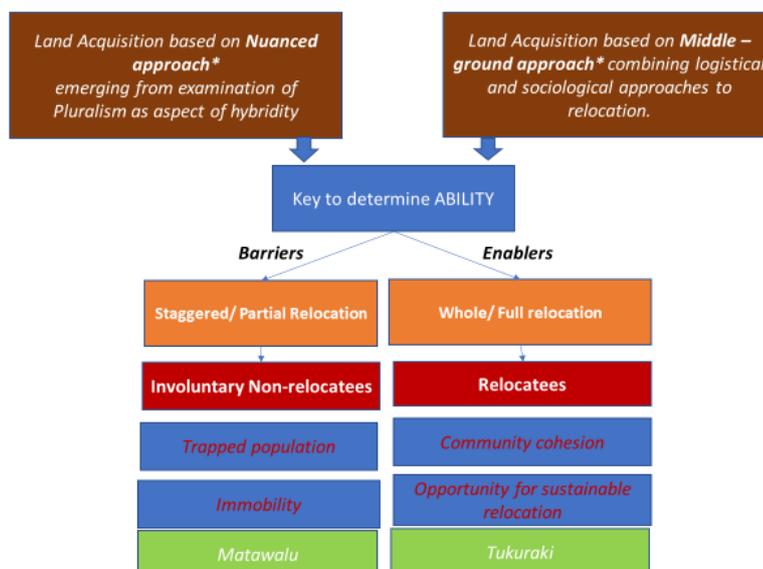

Figure 76: Key concepts emerging from the study based on Carling aspiration-capability model (2002) Concepts related to "Ability"

Shedding the light on those conclusions was facilitated by the use of "perceptions" (see
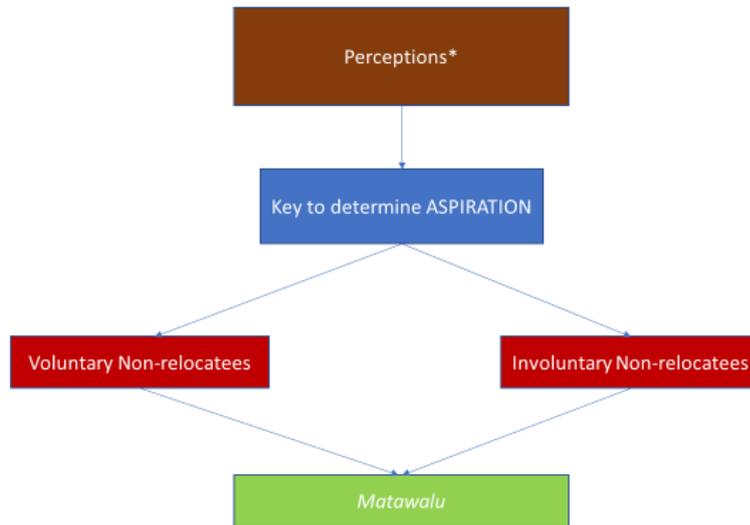

Figure 77) as central in our research design and key to determine "aspiration" (as defined in Carling's model) to relocate, particularly relevant to the category "voluntary non-relocatees" that are strongly influenced by their representation of what relocation would mean within their own perceptions.
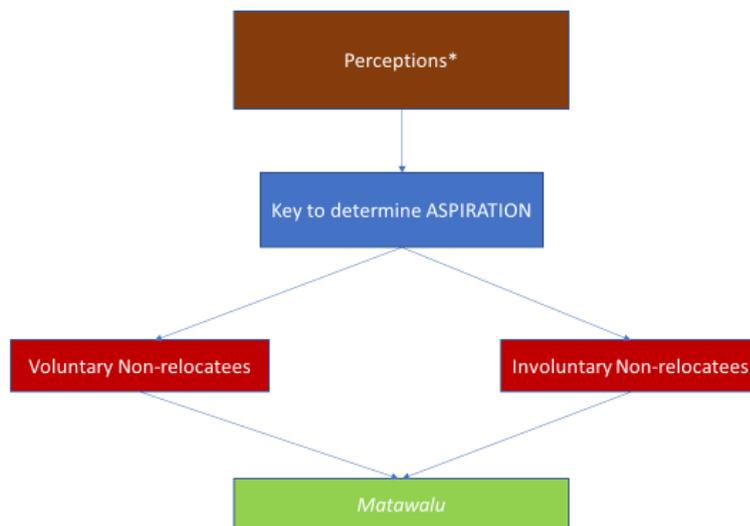

Figure 77: Key concepts emerging from the study based on Carling aspiration-capability model (2002) Concepts related to "Aspiration"

Main trends emerging from the study

"Perceptions", "immobility" and "resilience" are key concepts emerging from the research results, showing that those concepts need to be articulated when addressing land acquisition modalities.
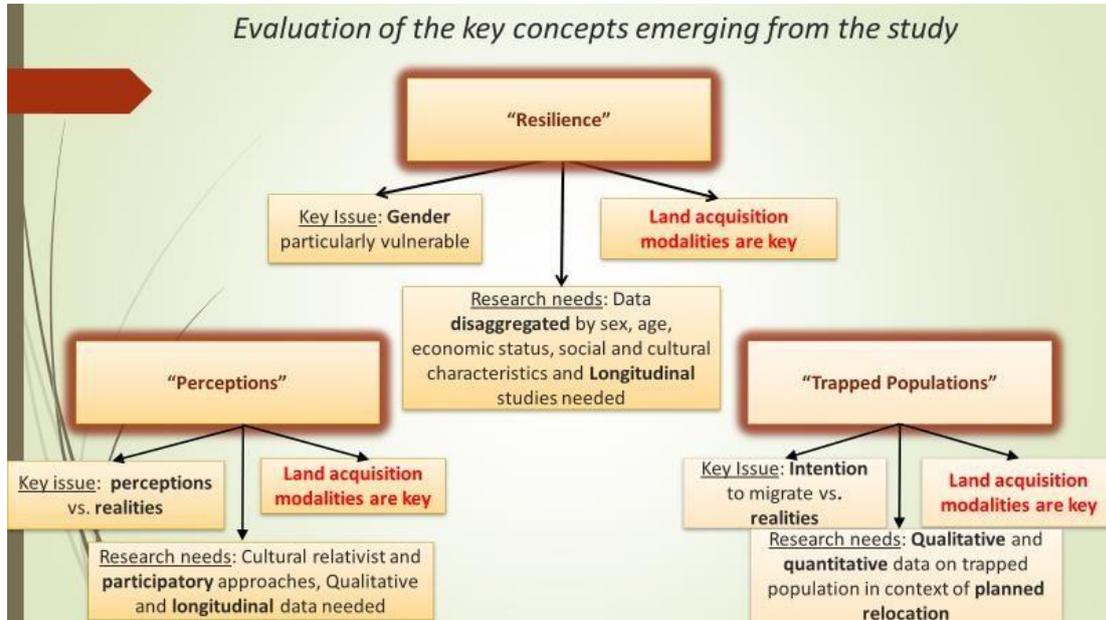

Figure 78: Evaluation of the keyconcepts emerging from the study

A key trend identified all through the study is the crucial role of "perceptions". The review revealed that it is widely agreed among various disciplines that local perceptions of environmental change are determinant for human mobility. The gap between perceptions and climatic data can be primarily or in part attributed to socioeconomic factors. In studies on perceptions, household surveys and interviews in a short time frame remain the main method of data collection. Again, here, there is a strong need to undertake further studies to understand evolving perceptions in a long-term prospect as well as longitudinal studies in order to capture perceptions over time for a more comprehensive understanding of land tenure in the context of human mobility. Furthermore, data collected on perceptions from affected populations and Pacific Peoples is key in this study. It allows the study to derive results directly from local perceptions of the issue. While the role of perceptions is considered central, using perceptions in a climate-induced human mobility study is also an area of controversy in the literature, as:

> {…} some people who do not intend to migrate may not have a choice in the future and may have to use migration as a survival strategy. Conversely, the intention to migrate may not translate into actual movements: people who intend to migrate may find themselves unable to do so, lacking the necessary means (financial, social, and human capital) (Zickgraf 2016).

This caveat has been considered and mentioned in most studies on perceptions evaluated in this study. It is also one of the main results from the field study. Studies on "trapped population", increasingly present over time in the literature seem to partially address this controversy as it captures those people unable to migrate lacking the necessary means.

"Trapped population" is therefore another concept emerging from this study. We have observed that Issues and barriers caused by staggered relocation leading to trapped population revealed by field study is absent from national guidelines. There is little research on the land acquisition processes leading a community or part of it to be trapped or "immobilized" in the context of planned relocation, especially within the Pacific context. Land acquisition is critical in the context of planned relocation in the Pacific, as land that is not under state control should be acquired through customary arrangements that are not regulated through formal processes. This can lead to negative outcomes such as land disputes based on staggered relocation, leaving part of a village in a flood-prone area. Comparing Tukuraki and Matawalu case studies reflect on the challenges land negotiation, land access and land acquisition can reveal in the case of planned relocation. Customary arrangements between the land owner of the hosting site and the customary chief of the affected village left a portion of Matawalu villagers behind, as land acquisition had been negotiated by the customary chief with the condition from the landowner to leave some of the new housing to the hosting community, which has resulted in part of the Matawalu community not being able to move. This illustrates how mechanisms of land acquisition in the context of customary land ownership should be improved in order to avoid staggered relocation as much as possible and to ensure that the outcome of relocation does not lead a community, or part of it, to be trapped.

The concept of "resilience" is another emerging key concept from the study. Most studies analysing land and climate change as a mobility driver in the Pacific tend to agree on the central role of resilience. Resilience is considered a key concept to understand the

complex link between land and mobility in the Pacific. Field study underlined the importance of considering resilience in the context of land acquisition while embracing the principles of the *Talanoa* dialogue through the spirit of collaboration, inclusivity and partnership. Furthermore, the Framework for Resilient Development in the Pacific (FRDP) is the main coordinating framework on human mobility in the context of planned relocation with the main aim to guide actions strengthening Pacific resilience at the regional, national and local levels.
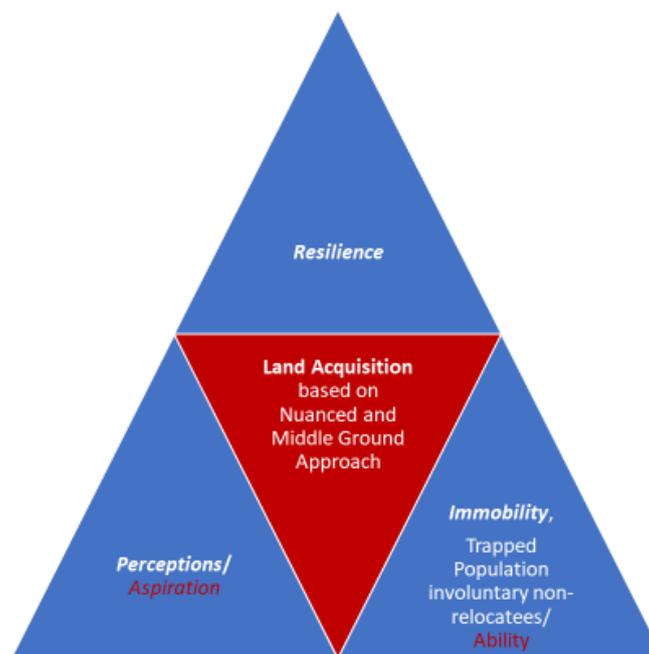

Figure 79: Key interrelated concepts emerging from the study with core land dimension

The theoretical approach presented above taking both at a social and policy perspective has been used to guide our observations, analyze our data and discuss our results. We finally discuss in Chapter 9 (conclusions) how each of these frameworks allowed us to critically engage in conceptual discussions on planned relocation. Indeed, this theoretical approach will hopefully allow us to shed the light on some conceptual observations on planned relocation as adaptation strategy to climate change in the Pacific, using Fiji as case study and identify some of the dynamics, synergies and trade-offs that can be observed between state and customary governance in the relocation process.

The next chapter will shed the light on the main conclusions of the thesis including a

conceptualization of planned relocation as adaptation to climate change based on the main trends and lessons identified by the study. Putting in perspective our community study results related to land tensions in planned relocation within the political frameworks identified enabled to provide specific policy recommendations that could serve as tool for future policy-making in the region while proposing directions for future research.

CHAPTER 10
Conclusion

King et al. (1994:16) propose to build a research design while considering "showing that theories or evidence designed for some purpose in one literature could be applied in another literature to solve an existing but apparently unrelated problem." The thesis set out to use the hybridity and pluralistic approach to analyze the climate-induced relocation process in Fiji. Indeed, it is challenging to study relocation in the Pacific comprehensively without understanding the the perceptions and aspirations of local communities.

As we have seen, customary-based dynamics are interrelated with the state-based approach to governance in different ways and at different levels. The relocation process is framed as a policy process by government and amongst the complex issues are customary land ownership, community-based social protection mechanisms and social disarticulation of the community. While there is a growing body of literature on land tenure and climate change, less attention has been paid to the implications of customary land tenure in planning for relocation as an adaptation strategy to climate change. There is still a gap in understanding cultural needs related to land governance in relocation in the Pacific and there is a strong need for a coherent framework including a solid understanding of the conditions for improving tenure security directly contributing to improvement of water and food security, and cultural and social cohesion in the context of planned relocation.

There is not enough study on current and future island migration patterns related to land tenure, regional relocation trends and land-based conflicts in the context of increasing environmental pressure. As seen in Chapter 2 there is a major gap in the understanding of the limits to adapting to climate change through community relocation (Campbell et al. 2005; UNHCR 2014; Gemenne & Blocher 2016, 2017). The issue has received limited scholarly attention as compared to migration and displacement in response to climate change (Lopez-Carr & Marter-Kenyon 2015). Good governance and best practice addressing limits to adaptation should include this dimension. Furthermore, our observation of the concept of "hybridity" and "pluralism" enabled us to understand the importance of analyzing planned relocation as adaptation strategy to climate change through the scope of "barriers" and "enablers."

We have seen that the customary authorities and institutions are legitimate governance actors holding their own governance mechanisms in the Pacific region, despite some views to the contrary. Strategies addressing land tenure governance and relocation as adaptation to climate change in the Pacific should include both state-based governance mechanisms combined with customary non-state institutions. We have observed that one way to intervene when addressing issues and barriers relevant to institutional interaction is the "nuanced-approach" identified through the lens of "pluralism" as an aspect of "hybridity." This provides an interesting perspective to explore regional governance as enabler to deal with planned relocation as adaptation to climate change in the Pacific.

Taking the scope of barriers and enablers from a social perspective, using the aspiration-capability framework from Carling unabled us to identify some conclusion that could contribute to the "immobility" scholarship in migration studies. Discussing our results through this framework allowed us to identify the category "involuntary non-relocatees" resulting from "staggered or partial relocation" and associated with "trapped population" identified in the literature. Taking a social perspective, barriers to relocation can therefore reflect on limits to adaptation incarnated by this part of the community being trapped in their site of origin and not able to move. Enablers to relocation would be rather linked to whole community relocation leading to opportunities for the category "relocatees" identified in our study to relocate in a sustainable manner, preserving community cohesion as essential Non-Economic Loss and Damage (NELD) that could occur in planned relocation if the community doesn't relocate as a whole.

Relocation must not be done without a deep respect for the people's view of the world, their own perceptions and aspiration as identified in Carling's model as well as a profound understanding of how they represent climate change and mobility within their belief systems and how traditional knowledge directly addresses those questions. In order to understand how to include indigenous forms of governance in relocation as adaptation strategy to climate change, it was necessary to understand what role traditional authorities hold in the currently developing decision-making process on relocation which was provided by our community field study results.

One of the key strands of the thesis is to address how planned relocation can be conceptualized as an adaptation strategy to climate change. In addition to the results

discussed above, a key result from this study underline the need to reframe the role of traditional and non-traditional community leadership in planned relocation based on the "middle-ground approach to relocation". Beyond participation and consultation, the role of traditional and non-traditional community leadership should be central and active in the relocation process. The thesis proposes a re-conceptualization of the role of traditional authorities in the relocation process. Traditional and non-traditional community leaders should be at the center of decision-making on relocation in order to avoid pre- and post-relocation tensions associated with land acquisition. The redefinition of the role of traditional leaders is currently limited to consultation and participation, an in many cases these are symbolic or lacks meanful functionality. It is argued here that, while the national relocation guidelines developed by the Fiji government could be considered as an example of good practice, current relocation frameworks are not inclusive enough and this may increase the potential for pre-relocation tensions associated with land. It also demonstrates through an empirical study undertaken in Fiji that the risk for tensions associated with land at the pre- relocation phase is high when indigenous local leadership is not considered as central in the decision-making process on planned relocation.

As we have observed in previous chapters, forced mobilities as a result of climate change will lead to growing challenges threatening Pacific Islands' security through issues such as land and food security, state-sovereignty and culture preservation. Promoting the integration of natural resource management and customary tenure into South Pacific regional governance is central to the results of this study in a context where the impact of climate change is increasingly visible in the region. Furthermore, it is essential that those frameworks include the central role of customary leaders and land owners while considering 'perceptions', 'immobility' (or 'trapped population') and 'resilience' as central concepts to address and frame planned relocation as adaptation strategy to climate change in the region.

Pacific governments have shown reluctance to choose customary land as selected site for planned relocation in order to avoid associated land-based tensions (Nansen 2013). However, most of the land available for relocation in most Pacific countries such as Fiji is customary-based. One may argue that it is possible to reduce limits to adaptation in planned relocation and risks associated with land linked to the erosion of cultural cohesion. The theeis has shown that successful relocations must integrate mechanisms for

societal well-being, livelihood or subsistence activities, community cohesion and cultural integrity. To do this, customary authorities, impartial local land experts and affected communities, as key stakeholders in land negotiation, should have a leading role in decision-making related to the relocation process. They should therefore be legitimate and central stakeholders in the national relocation guidelines developed at the state level in Fiji.

The field study intended to understand firstly to what extent customary land tenure is key to forming a sustainable adaptive response to climate change through migration in the Pacific region and how it relates to natural resource management. It is particularly crucial to address this dimension, particularly in the context of the Pacific Islands, as important features such as food security, water access, and social structure directly rely on successful management of land ownership, right to land property and access to land. The study revealed that an important element to consider is the strong demand for more appropriate governance mechanisms for climate change by Pacific governments. Data collected on perceptions from affected populations is key in this study. It allows the study to derive results directly from local perceptions of the issue. The study shows the need to include customary leadership and ensure it has a central role in the decision-making process on planned relocation. Furthermore, the study reveals that there is a strong case to be made about regional cooperation to take the lead in developing inclusive frameworks on climate-induced human mobility in the region. These conclusions are in line with the Niue Declaration and the need for Pacific Peoples to keep ownership of the solutions to the issue of climate change often recuperated by external stakeholders. This addresses the lack of cultural relativism highlighted in recent research on land in the context of climate-induced mobility while promoting research incorporating Pacific values. Indeed, results of this study emphasizes the need to promote local researchers and research reflecting local knowledge. This gap has been well-articulated by Mayer (2013), who argues that many proposals for global legal governance of environmental migration have recently been published, almost exclusively by Western scholars, and denounces:

> {…} the geographical and intellectual disconnect between descriptive works on environmental migration as a phenomenon and the normative studies on the developments in law and governance. … this disconnect has resulted in a post-colonial approach towards tackling environmental

migration, which could impede the protection of environmental migrants (Mayer 2013: 2).

Furthermore, decision-making should further prioritize Pacific Islands values in order to promote the sustainable, equitable and spiritual development of the region. The disconnect between stakeholders (resource users, developers, policy makers, communities) and the lack of information about climate change impacts tailored to people's needs should be seriously considered in future regional strategies on adaptation to climate change.

The literature on legal pluralism applied to the context of environment and livelihoods provided some interesting insights to address questions raised when undertaking a "nuanced approach" to question the use of both the custom and formal governance in the Pacific (see for example Pulea et al. 1987, Kwa 2009:4, Kuemlangan 2004, Kuemlangan et al. 2003, Veitiyaki et al. 2003, Hviding and Baines 1994). These included the need to preserve ownership of the process at all stages by the community and observing security, exclusivity, permanence of rights and flexibility as main principles while integrating both frameworks together. This study has hopefully contributed further to this literature by adding another layer of analysis and identifying some lessons on the role of the custom in the context of planned relocation induced by climate change in the Pacific, using Fiji as case study.

Indeed, this research thesis hopefully added another layer to the critical analysis on "hybridity" and "legal pluralism" applied to environment and livelihoods explored above by framing our theoretical framework around this knowledge and lessons learned from the review. Indeed, our theoretical approach (described in chapter 3) inspired by the critical analysis of the "hybrid approach" and "legal pluralism" was framed through an attempt to take lessons from the "nuanced approach" identified in the literature. Therefore, our analysis of results in chapter 9 aimed to identify the interactions including tensions and synergies and contribute to the existing literature while providing some conclusions on "How can planned relocation be conceptualized as an adaptation strategy to climate change using Fiji as case study" that is our main research question.

The concept of "hybridity" tested early in the thesis was very useful in revealing that hybrid political governance including traditional and Weberian political forms of

governance should be addressed cautiously with caution and critically addressed in the context of planned relocation in the Pacific. The main challenges would be to define how it might be possible to combine different kinds of political approaches to strengthen resilience to climate change through mobility while generating peace, security and structural stability for the next generations. Without developing models of climate governance based on a critical evaluation of political hybridity in the Pacific, customary-based governance mechanisms may not be sustainable and conducive to peace. Indeed, "Existing structures that have provided a certain degree of efficiency in the past have the greatest potential to implement new concepts and instructions successfully, since their chances of being accepted by the population are high" (Worliczek and Allenbach 2011, 152). What are the most effective ways of using both forms of governance when planning for relocation to avoid land tensions between relocatees and hosting communities? The thesis argues that one way of approaching this is retrieving past and recent/current example of environmental-relocation "good governance" through customary mechanisms in the region. Those approaches should be based on local practices and include community-based systems in order to be sustainable and respect the diversity of the region where customary structures constitute an important part of the land tenure. The diversity of customary land rights in the Pacific Island region makes relocation a particularly complex process. In order for governments and relevant stakeholders to plan for sustainable relocation in the Pacific, a number of suggests can be considered in the decision-making processes and political frameworks.

We have attempted to contribute to the body of knowledge in the field by discussing the controverted concept of" hybridity" and observing relocation as both a social and political experiment. This will hopefully provide research material that could be used as tool to support climate change and mobility governance in the Pacific region. This integrated approach has a holistic and inclusive component that can easily adapt to the local culture while allowing use in other regions facing similar challenges related to land ownership, land tenure security and climate-induced relocation.

10.1 The "nuanced-approach to relocation"

This approach which tested through the thesis is important in addressing relocation planning in the Pacific region. Relocation needs to include negotiation at early stages of the process, including governments, local leaders and both relocatees and hosting communities. Understanding this dimension is crucial and without deep comprehension of ancestral adaptation strategies and planning around land management, the relocation process is likely to be unsustainable as it will lack the important local specificities and the essential link between Islanders and their land. Customary authorities and institutions are legitimate governance actors holding their own governance mechanisms in the Pacific region. Strategies addressing land tenure governance and relocation as adaptation to climate change in the Pacific should include state- based governance mechanisms combined with customary non-state institutions in order to be sustainable. This cannot be done without a deep respect for their view of the world, a profound understanding of how they represent climate change and migration within their belief systems and how traditional knowledge directly addresses those questions. Inserting local adaptation strategies and traditional knowledge on environment in regional and national decision-making is crucial; however, it is important to also insert measures supporting awareness raising on climate change among customary high chiefs in parallel.

The "nuanced" or "combined" model should also be addressed at the regional level of governance. Creating a regional model of governance is challenging in the context of the Pacific region where the level of resilience to climate change is diverse according to the geographical and political context; and where the high diversity of land tenure systems and customary-based mechanisms is particularly complex. However, the regional level of governance offers particularly interesting alternatives for dealing with adaptation to climate change and human security. Indeed, there is a growing international recognition that regions are best placed to engage with cultural-inclusive approaches to solving new security challenges involving climate at the front line. Furthermore, the "combined model" should not intend to draw a model at national level as it wouldn't be exportable to other Pacific countries, because of the various political, traditional and security configurations.

Critical evaluation of "legal pluralism" and "hybridity" provided an understanding that

"nuanced approach" (see Chapter 3) to governance of adaptation to climate change combining local and formal governance mechanisms are key to address land in the context of planned relocation in the Pacific. Customary authorities and institutions are legitimate governance actors operating in the region.

Climate-induced mobility governance should include both state-based governance mechanisms combined with local customary non-state institutions. In order to combine community-based governance mechanisms to formal frameworks, it is necessary to include traditional authorities to the decision- making process on relocation. Land access and acquisition should be based on customary processes that governments often lack knowledge or understanding while communities still need assistance from states and external stakeholders to deal with the logistical and financial aspect of relocation. Land acquisition processes are key in planned relocation. The way land is accessed and negotiated is central in preventing land security challenges including water tensions, issues around resources distribution and community cohesion. We have observed that using *talanoa* has been successful to address land negotiation in the context of planned relocation; including traditional methods of land governance in the design of global approaches is therefore crucial to better deal with future environmentally-induced relocation in the Pacific region. The political tools currently being developed in the region should facilitate those traditional land acquisition processes (talanoa, ect.) and ensure that customary authorities and land owner are central in the process. The role of the "Planned Relocation Working Group" (PRWG) present in the "Planned Relocation National Guidelines" (Fiji 2018) is a concrete tool that could be considered as example of good practice in using a hybrid approach to relocation as illustrated below. Exploring our results to fill the gaps still present in concrete political tools such as the PRWG could support inclusive policy on planned relocation in the future.
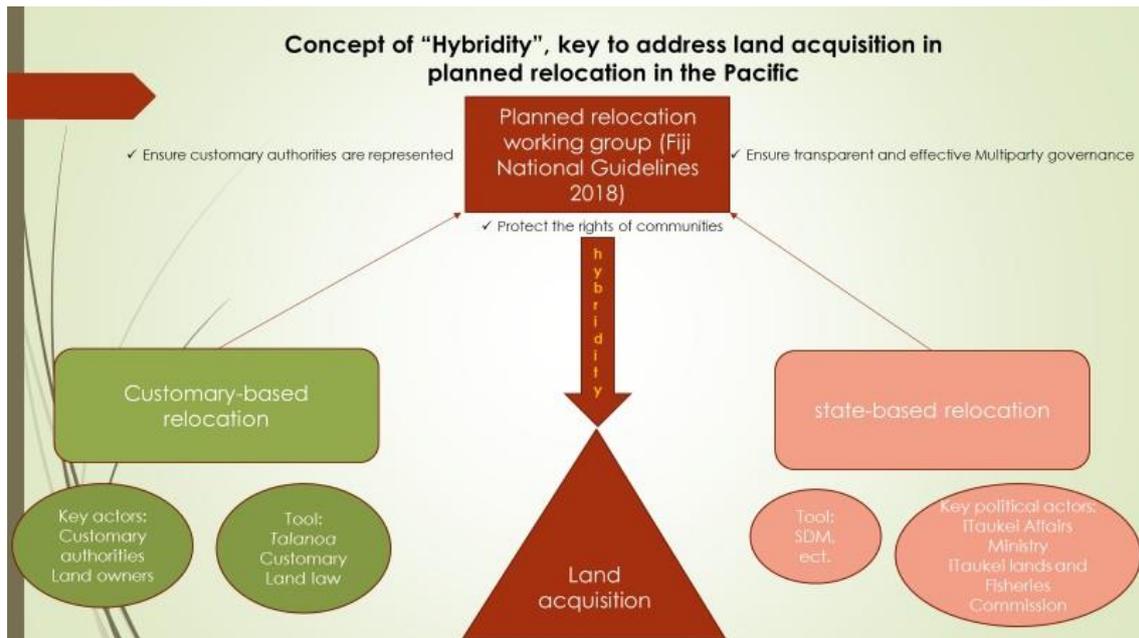
Figure 80: An example of good practice based on a critical evaluation of the concept of "hybridity approach"

As observed, there are various dynamics, synergies and tensions at play and the lesson is that simplistic hybrid political order should be used with caution when referring to political interplays in the Pacific, particularly when addressing planned relocation that involves land access and acquisition through traditional methods of negotiation and conflict management. One way to intervene when addressing issues and barriers relevant to institutional interaction is the "nuanced-approach" identified through the lens of "pluralism" as aspect of "hybridity" provides an interesting perspective to explore regional governance as enabler to deal with planned relocation as adaptation to climate change in the Pacific. The high diversity of land tenure systems and customary-based mechanisms is particularly complex. Worliczek (2013) provided an anthropological study observing common threads and variations in customary lands in the Pacific showing that access to land are shared to different degrees across the islands Worliczek (2013, 2020:1).

The centrality of the "nuanced approach to relocation" and the critical evaluation of the "hybrid approach" both underline that flexible approaches to land governance are key for dealing with planned relocation in the Pacific. Security of tenure is central and developing policies optimizing registration of customary lands would help to protect the land rights of communities forced to move as a result of climate change. Unsecure tenure and issues around customary land titles and ownership including unclear villages' boundaries

demarcation can increase the vulnerability of relocatees and provide fertile ground for post-relocation land-based conflicts. The concept of Social Domain Model (SDM) (FIG/GLTN 2010) offers a combined state-based and community-based approach to land governance that could be used to address land tenure security and planned relocation. The SDM provides flexibility by allowing all legal and social tenure rights to be captured and, also offers flexible alternatives for village lands allocation while considering the option to register individual rights as the need arises (Byamugisha 2013). The "Fit-For-Purpose" (FFP) approach to land governance could also be an interesting framework to consider in the context of planned relocation in the Pacific as it considers the combination of the spatial, legal and institutional frameworks. This approach also includes key principles such as good land governance preventing bureaucratic barriers, the promotion of integrated institutional framework rather than sectorial approaches, transparent land information systems accessible to communities and all stakeholders involved with land management and gender equity in all aspects of land administration (UN-HABITAT, GLTN 2008). Finally, the conceptual perspective used in the Voluntary Guidelines on Responsible Governance of Tenure (FAO 2012) could be a key tool used in order to incorporate to the global agenda responsible governance of tenure in the context of climate-induced planned relocation.

KEY PRINCIPLES		
Spatial framework	**Legal framework**	**Institutional Framework**
▪ Visible (physical) boundaries rather than fixed boundaries. ▪ Aerial / satellite imagery rather than field surveys. ▪ Accuracy relates to the purpose rather than technical standards. • Demands for updating and opportunities for upgrading and ongoing improvement.	▪ A flexible framework designed along administrative rather than judicial lines. ▪ A continuum of tenure rather than just individual ownership. ▪ Flexible recordation rather than only one register. • Ensuring gender equity for land and property rights.	▪ Good land governance rather than bureaucratic barriers. ▪ Integrated institutional framework rather than sectorial silos. ▪ Flexible ICT approach rather than high-end technology solutions. • Transparent land information with easy and affordable access for all.

Figure 81: The Key Principles of the FFP Approach (Enemark et al, 2015:10)

10.2 Future research

Interdisciplinary research networks should be further developed in order to develop evidence- based knowledge of relocation as an adaptive response to the adverse effects of sea level rise and extreme weather events resulting from climate change. This needs to be addressed in regional planning on land while land dynamics should be closely studied and included in regional decision-making on adaptation to climate change.

Future research should focus on how to develop a collaborative institutional model promoting a "nuanced approach" addressing land tensions associated to relocation as adaptive response to climate change impacts designed for use by Pacific institutions with the idea to combine indigenous and formal governance mechanisms to address tensions

associated to land in the context of climate-induced relocation. For that purpose, theoretical frameworks addressing planned relocation and indigenous governance such as "The Adaptive governance relocation framework" (Robin Bronen 2015) could be used. This framework is based on research involving four Alaska Native communities threatened by climate-induced environmental impacts; the "community-based social ecological assessment tool" aims to engage communities in a "collaborative decision-making process with government representatives to determine whether and when to relocate {…}". The final aim would be to "avoid or minimize the harmful effects of government-mandated relocations." (Robin Bronen 2015). This framework focuses on collaborative knowledge production between communities and governance institutions in order to develop a monitoring and assessment tool that aims to determine whether and when relocation needs to occur. The framework provides interesting theoretical orientations that would support the development of the collaborative institutional model addressing land tensions associated to relocation as adaptive response to climate change impacts. The flexible approach to social-ecological governance that promotes collaboration among stakeholders at various scales (Kofinas 2009) will also be a very useful example of collaborative governance taking the case of resource management in conditions of change that "{…} requires an understanding of both the processes by which groups make decisions and the mechanisms by which these decision-making processes adjust to change".(Kofinas 2009:94)

Furthermore, the "typology of planned relocation" revealed by the study helps understand that we have studied a very specific and small portion of what constitute the relocation process that is complex and need to be comprehensively addressed in research and policy. Indeed, this study has provided some insights on disaster-induced cases of relocation based on a "reactive" approach, driven by external stakeholders and by the state. It also looked at the pros- and cons of using "staggered" or "whole" relocation strategy. Furthermore, the relocation stage studied was mostly focusing on the "planning" phase while the relocation phase observed was category 2 (almost finalized or recently been finalized), category 3 (relocations confirmed but not started or will take place soon) and category 4 ("trapped" communities "at risk" and likely to be relocated in the future but not yet considered for relocation). More research would be needed to study slow-onset relocation, preventive relocation, community-driven relocation, other stages of the relocation process (assessment, decision, implementation and monitoring) and category 1 (completed relocation). It would be particularly interesting to study the implementation and monitoring phase, as well as the category 1 – completed relocation- that would provide more details on post-relocation vulnerabilities and lessons for future relocations at preliminary phases. The study of community-driven relocation would be particularly important in the context of the Pacific.

Community-driven cases of relocation would also be important to study as data collected at the institutional level and results from our study suggests that it is the form of relocation that is more likely to emerge in the future in regions of the world where affected communities have their own traditional governance mechanisms. The consequences of climate change on the region will increasingly leave considerable numbers of communities "trapped" and not considered for relocation (category 4) by the state while not being supported by external stakeholders. In such cases, local governments have a crucial role to play in order to support already existing traditional structures that will be key in negotiate the land (as they already are), but also to plan the whole relocation process by themselves. Indeed, it is suggested that this form of relocation would emerge massively in the Pacific if appropriate legislation, public policies, inter-institutional coordination and funding mechanisms are not efficiently and comprehensively put in place to respond effectively to the increasing number of communities in need of relocation. Community-driven relocation needs to be seriously addressed by policy

makers and future studies on planned relocation should further study how local level governance entities can support traditional structure in place in the region.

Indeed, community relocation demands considerable financial and institutional capacity of governance institutions and can result in important conflicts between the affected and hosting community including tensions related to land (Naser, 2014) (Bronen & Chapin, 2013). It is therefore crucial to understand better how this type of relocation can be supported and organized preventively in order to avoid dealing with the associated conflicts and land tensions in a reactive manner. In that context, observing some empirical case studies as it was done in this study, could help understand that the inclusion of traditional knowledge in the study of planned relocation is crucial as Pacific Island communities have a wide range of mechanisms that have helped cope with adverse environmental conditions for millennia. Collective and individual strategies for managing risks and dealing with shocks, as well as a deep understanding of environmental variability, are integrated into the collective knowledge and practices of Pacific communities. The traditional structures and methods of governance of traditional chiefs reinforce these strategies and are at the heart of collective decision-making.

Framing land governance around approaches observed in the dissertation cannot be done without a deep respect for the Pacific peoples' view of the world and a profound understanding of how they represent climate change and mobility within their belief systems and how traditional knowledge directly addresses those questions. Traditional adaptation strategies enabling Pacific Islanders to cope with extreme environmental events were developed over past centuries, and this knowledge should be valued and ways to incorporate it to future decision-making around climate change and mobility in the region should be urgently developed and set as priority at the regional level. Future studies should also observe existing examples of community-led relocations in countries such as PNG and Solomon Islands where traditional forms of governance prevail. It would be necessary that future research focus on (preferably ethnographic and longitudinal) studies that observe the composition, mechanism and functionalities of community- led relocation initiatives as well as the role of the government and local entities in this process. Indeed, an analysis of government and institutional capacities in supporting community-led relocation would be a great idea.

There is no existing policy framework that deals with climate-induced human mobility in both PNG and Solomon Islands. As we have observed in our chapter 4, Carteret Islands relocation in PNG is an interesting case of community-driven relocation instigated by the Council of Elders of the Carteret Islands in 2012 and supported by the local NGO "*Tuele Peisa*". Furthermore, in Bougainville, community-led relocation initiatives are part of an informal system that compliments the formal government system for the relocation of the Atolls people of Bougainville through the Atolls Integrated Development Policy (AIDP). In the context of the Solomon Islands, where the state has limited power over land acquisition, the study of community-driven relocation is crucial. The Solomon Island's National Adaptation Programme of Action (NAPA) acknowledges that communities are likely to be displaced by climate change and includes some mentions of adaptive measures and community relocation (Monson & Fitzpatrick, 2015). However, the main pathways of mobility in Solomon Islands include networks created by trade and intermarriage within kin-based communities. Therefore, there has been little number of relocation cases able to relocate in areas where they have affinal links, or a history of trade exchange with the local land-owning tribe (Monson & Fitzpatrick, 2015). Furthermore, communities which are part of such networks are left "trapped" with limited option to move. It would be crucial to address those dynamics and further study community relocation in such contexts can teach us a lot on future cases of community-driven planned relocation.

10.3   Future policy

At the policy level there is an urgent need to strengthen government focus on land and climate change issues. Migration as adaptation to climate change in the region will need stronger regional cooperation and there is a need to devise land related policies and program that can address these challenges in order to minimize vulnerability. Identifying inter-linkages between secure customary land tenure mechanisms, state-based land governance, regional and global frameworks is critical. Results of the role of external stakeholders in the relocation process also emphasized on the need to move away from project-based relocation as much as possible. Instead, it is seems that to work effectively, planned relocation should be   designed, organized, implemented and monitored by institutions including local entities holding a central role under the umbrella of regional

standards. In this approach, the National Relocation Taskforce Committee (NRTC) has a central role and should be reintroduced in the National relocation guidelines developed in Fiji that could serve as model for the region. As mentioned in the first draft of the guidelines, the NRTC should report to the National Climate Change Policy (NCCP) Sub-Committee that oversees the objective of Adaptation under the NCCP. These outcomes are then reported to the National Climate Change Coordinating Committee which is in charge of final decisions on issues related to relocation as a result of climate change in Fiji. Indeed, multi-level cooperation is key and local coordination is essential to avoid injustices. It is argued here that a multi-level governance of planned relocation with a particular emphasis on the role of regional governance and local entities with national governance having an intermediate role as facilitator is key to address planned relocation in a sustainable manner. It would also be important that regional entities such as the PIF that have been leading frameworks on Climate Change and Human Mobility include in their future work the central role of customary authorities, land owners and affected communities while considering "perceptions", the issue of "immobility" and "resilience" as central concepts to address processes on planned relocation as adaptation strategy to climate change in the region.

10.4   Research gaps: Some future considerations

The literature reviewed in the study focused on the links between land degradation, land tenure and human mobility looking in particular at the Pacific context. It argues that studying the land tenure and human mobility nexus within the particular context of the Pacific region could be further enriched by trans-disciplinary and integrated approaches from various disciplines. Furthermore, the cross-disciplinary thematic approach, based on the distinction between migration, displacement and planned relocation allowed us to identify areas of controversy, key trends, major research gaps and recommendations for future research through the wide spectrum of human mobility and avoiding over-simplification of the concept.

The slow-onset events can be a significant driver of migration, displacement and planned relocation, however, there is a significant gap in the current data on land and human mobility linked to slow-onset events in the PICTs. The literature reviewed revealed that

more qualitative and quantitative national assessments are needed to understand human mobility and issues associated to land in the PICTs. The lack of reliable data on population dynamics is a major obstacle to assess the mobility and vulnerability at the regional level. The Pacific Islands Region has often been used in comparative regional studies on climate change and human mobility. However, there are just a few comparative studies comparing case studies from different countries in the PIR. While the Pacific as regional entity is often referred to in studies on sea level rise-induced mobility and is often compared to other regions, the review identified the need to develop further comparative studies at national level that use similar methodologies and conceptual frameworks as a major obstacle to the harmonization of data collection on land degradation and human mobility at the regional level remains the lack of accurate, comparable and complete data at national level.

In terms of methodology, there is a strong need to improve quantitative assessments, both estimates and predictions in the study of the land and human mobility nexus in the PIR. The literature is still primarily based on qualitative methods of data collection, 64% of the papers reviewed (36 in total) are based on qualitative methods. Quantitative and mixed methods mixed methods assessments are still under- represented and should be encouraged. Furthermore, longitudinal studies are still minor in the literature while slow-onset events such as sea-level rise should be further studied in a long-term prospect. Longitudinal data would also allow assessments of the impacts on both host communities and communities of origin. Finally, comparative studies that use similar methodologies and conceptual frameworks are key to develop comprehensive understanding of land tenure and human mobility.

Empirical studies (both qualitative and quantitative) on cross-border/ internal displacement and planned relocation in the particular context of land tenure and land governance in the PICTs. are still minor in the literature. Collecting qualitative and quantitative data and enhancing knowledge on cross-border/ internal displacement and planned relocation is crucial in order to have a broader understanding of human mobility dynamics as a whole within the context of land governance in the PICTs.

Literature associating land tenure and planned relocation often refers to issues related to tenure security. Tensions between formal and customary land arrangements have

significantly increased and tenure issues are highly problematic when relocation takes place outside the territory governed by the customary law of the affected population. Furthermore, tenure and land use practices are continuously evolving; however, long-term longitudinal studies are under-represented in the literature. In the Pacific context, land access, mostly in rural area, involves interaction between social networks, locally, tenure institutions, and competing claims over land. Very little studies emphasize on the interaction between land degradation, land tenure and human mobility. Challenges associated with customary land tenure and tenure security in the context of climate-induced mobility and particularly relocation should be further studied in the Pacific context. Beyond customary land rights, both qualitative and quantitative data should consider all the tenure types from freehold issued with land title, to legitimate informal settlements. Finally, in order to promote national assessments addressing issues on land tenure in a comprehensive manner, there is a need to identify and define the intangible losses associated to land tenure (culture, heritage and community assets) and overcome issues of incommensurability.

Confusion in the use of human mobility terminology in the context of climate change. The distinction between migration, displacement and planned relocation is still not very clear in the literature and it is sometimes difficult to clearly separate voluntary movements of those forced. Furthermore, the use of various definitions of "land degradation" and "land tenure" across disciplines makes it particularly challenging. There is a strong need to address the lack of consensus about how human movements are characterized within the context of climate change and how definitional/terminological distinctions are made.

There is still a tendency to use "migration" while addressing other forms of human mobility such as displacement and relocation. The literature is still dominated by narratives on "migration" that should be nuanced, reframed and redefined in order to capture human mobility in a comprehensive manner. Land acquisition modalities were highlighted as key in capturing "vulnerability" criteria associated to land degradation, land tenure and human mobility patterns. "Resilience" is highlighted in the review as increasingly shaping mobility outcomes.

In order to develop better data collection processes capturing « resilience » and its

associated socio-economic and gender factors, it is crucial to ensure data includes details on land acquisition modalities and is disaggregated by sex, age, economic status, social and cultural components.

We have focused our method of data collection on a participatory approach mostly trying to capture "perceptions". There is a strong need to address the gap between "perceptions" and reality. Some authors (Zickgraf et al. 2016, Ozer et al. 2010) address the gap between perceptions of environmental change and quantifiable assessments with the aim to better capture the impact of differentiated perceptions on migration outcomes. In studies on perceptions, other authors justify the need for such studies through a cultural relativist approach. A study on perceptions from Van Der Geest (2010), for example, rather aims to challenge the dominant Western perspective on climate-induced mobility studies and suggests studying the impact of out-migration on sending areas through an inclusive participatory approach that would capture how affected people perceive mobility beyond "Western" academic parameters.

Further research and (preferably longitudinal) data on perceptions are highly needed in order to fully understand the scope of both differentiated perceptions and objective assessments on climate-induced mobility and cultural relativist approaches. Land acquisition modalities are highly shaped by perceptions and these should be carefully studied.

Most of the literature reviewed on the land tenure and human mobility nexus in the PICTs is still driven by Western institutions and researchers. A multi-stakeholder approach involving local communities in the study of land tenure and human mobility is crucial and has been partially addressed by studies on "perceptions". A minority of the literature reviewed derived from non-Western institutions and academics. Recent progress is clearly visible in involving local stakeholders and locally-based expertise through the creation of research platforms and building local capacity through initiative supporting local research on climate change, land governance and South-South migration. There is an urgent need to increase the presence and contribution of researchers from the Pacific and the Global "South" in future studies.

Research should focus on immobile populations who will not have the financial, social capital and resources to move. The concept of « trapped populations » is relatively new

in studies on climate-induced mobility. While this concept is very poorly considered in migration studies within the Pacific context and most literature considering "immobility" focus on extreme environmental events and less on coastal erosion as main driver of mobility. Furthermore, there are very little studies on "trapped population" in the context of planned relocation and on how land acquisition can shape outcomes of the affected population being "trapped" or "immobilized". This gap should be addressed, and data should be collected in order for policy to address the issue of "trapped" populations in areas of origin, transit or destination.

We have reviewed some historical cases of relocation in our study. Macro-historical perspective is crucial to address climate change and human mobility. In the particular context of the Pacific, it is crucial to refer to historical processes in order to better understand and address current and future climate-induced mobility and the role of land in the process. There is a strong need to further develop historical data in order to validate models-based projections. The time-frame (too recent), scope and consistency of historical data need to be acknowledged as another crucial focus for future research.
There are certainly other conceptual issues that have not been addressed in this study and that need some attention. We have attempted to cover the issue comprehensively but so many other aspects of climate-induced planned relocation and land governance would need to be explored. The field study revealed for example that both gender leadership and marginalization would need to be addressed in future policy.

The issue of land can also be observed in other regions of the world where a collective form of land ownership prevails. The destructive category 5 hurricane Dorian that has been hitting the Bahamas in August 2019 is a recent example of tropical wave rapidly intensifying and causing landfall with disastrous impacts on the population and their livelihoods. Collective family land ownership and Bahamian land ownership is linked closely with the idea of family. Families are forced to move their homes or are being "trapped" in the aftermath of the hurricane which is leading to a series of challenges similar to the issues we have observed with customary land tenure in the Pacific. Such disasters will only intensify in the future and hit many different regions in the world including areas where vulnerable populations will thrive to cope with the destructions.

This thesis has also highlighted that it is a challenge to dissociate policy and research in

the study of climate change and human mobility. The nature of the IPCC itself that is taken as reference in any discussion or decision on climate change reflects on this complexity and brings a whole set of questions about the role of politics and therefore funding and economics in framing the agenda on climate change in the coming decades. This should alert us and remind us that the way the issue of climate change is shaped, discussed, explored and negotiated today will be decisive on what will happen to the planet tomorrow. It is urgent to ensure that it only serves the interests of the next generations in the Pacific and anywhere else in the planet. Allowing our children to survive and live with dignity in the future is what matters the most today.

Finally, this thesis is dedicated to this new generation portrayed in the picture below taken in Matawalu village, Fiji in 2017, my two sons Jibril and Malik and my daughter Salma.

Figure 82: Portrait of the new generation of children in Matawalu village with my s son, Jibril Bakkali Tahri, Matawalu, Fiji, 2017. (Photo: Dalila Gharbaoui)

APPENDIX 1
Field study Interviews in details: Table summary

	Matawalu	Tukuraki	Lami, Suvavou et Qauiya
How long in the field	10 days	5 days	5 days
How many interviews	18	12	6
In what language	Fijian & English	Fijian & English	English & Fijian
What sort of interviews	Narrative, semi-structured interviews and questionnaires	Narrative, semi-structured interviews and questionnaires	Narrative, semi-structured interviews and questionnaires
what kinds of people were interviewed (profile of interviewee)	Customary chief, Land owner, Villag	Customary chief, Villagers	Land owners, villagers
Details on the survey participants like individuals, household heads and households	Customary Chief (1), Land Owner (1), Customary Chief's wife (1), Customary Chief's Nephew (1), Household heads male (3), Households heads female (3), Members of households female (7)	Customary Chief (1), Household heads male (4), Households heads female (3), Members of households male (3) female (1)	Household heads male (3), Members of households male (1), female (2)
Population and disaggregated by gender (males, females)	7 Males/11 Females	8 Males/4 Females	4 Males/2 Females
Other demography like youth and children.	No children interviewed	No children interviewed	No children interviewed
How were the interviewees accessed	In person	In person	In person
How responsive were they	Very responsive	More difficult to access	Responsive
How were the interviews analysed	See Methodology (Chapter 3 and 5)	See Methodology (Chapter 3 and 5)	See Methodology (Chapter 3 and
How were interpreters recruited, for how long	Through contacts in Fiji/ during the	Through a contacts in Fiji/ during the	Through contacts in Fiji/ during t
Include the strengths and weakness of going through customary chiefs	Customary chief facilitate the acces	Customary chief facilitated the acce	N/A

APPENDIX 2
Field study guideline: What were the questions asked?

The field study conducted as part of this research examines perceptions related to land tensions in the context of climate change-induced relocation at community level. For this purpose, the following steps have been taken in the field:

A)   <u>Identify the type of relocation for all villages (Is it category 1,2,3,4 or 5):</u>

It could be a past temporary relocation. In most settlements, building protective barriers was the most common adaptation strategy, though they were also reliant on government assistance. However, a larger percentage of the settlement population in some of those villages have adopted temporary relocation as a means of an adaptation strategy to climate-related impacts.

1.   Relocated Communities (<u>Category 1</u>):

State-based relocation?

Community-driven relocation?

2.   Ongoing Relocation (<u>Category 2</u>):

Relocation started (anticipated to be finalized within 6 months to 1 year). Villages identified by Government as "site to be relocated" (funding allocated, external stakeholders involved, relocation project approved, land negotiated and approved, partial relocation started ect.)?

Community-driven relocation currently taking place?

3.   Potential Relocation (<u>Category 3</u>):

Villages identified by Government as "site to be relocated" but relocation did not start - (no) timeframe provided?

Community-driven relocation planned but did not start – (no) timeframe provided?

4. Vulnerable sites not considered for Relocation (<u>Category 4</u>):

Villages not identified as "site to be relocated" but identified as "hot spots" to be assessed for relocation by government officials;

Villages not identified as "site to be relocated" and not identified as "hot spots" to be assessed for relocation by government officials <u>but </u>subject to claims for relocation by communities (<u>Category 5</u>)

B) <u>Once category of relocation is identified address both customary chief(s) and affecting population in both origin and destination site if possible (in both Matawalu and Tukuraki):</u>

Customary Chiefs (in both origin and destination sites):

1. What is the role of customary land tenure in the relocation process, would you qualify it as facilitating or exacerbating tensions on land?

2. What role do you play in land issues in your community? In the context of relocation, what role do you think you can play in preventing land tensions?

3. Were you informed enough by the state-based programmers during relocation (if state-based)?

4. How were you inserted in the relocation process? Were you consulted enough? Did you feel empowered and part of the decision-making? Rate your level of involvement (scale from 1-10)

5. Was the affected villagers involved in the relocation process (rate their level of involvement: scale 1-10)

6. Do you think that land is at threat at the new relocation site or is it an opportunity to improve it?

7. Did you have to deal with other customary chiefs at hosting site?

8. Did you identify any potential for land tensions at new site?

9. Do you face inter-generational tensions related to land rights in your community (individual vs. collective land rights)? Between members of the affected and hosting community? If yes, was this considered in the relocation

process? Do you think these tensions could potentially undermine land in the future?

10.   What do you suggest being done differently in future relocations to avoid post-relocation vulnerabilities related to land tensions?

Communities (in both sites-with gender proportion):

1.   What is the role of customary land tenure in the relocation process, would you qualify it as facilitating or exacerbating tensions on land?

2.   Were you informed enough by the state-based programmers during relocation (if state-based)?

3.   How were you inserted in the relocation process? Were you consulted enough? Did you feel empowered and part of the decision-making? Rate your level of involvement (scale from 1-10)

4.   Rate the level of involvement of customary chief and land owners addressed in a scale from 1-10

5.   Do you think that land is at threat at the new relocation site or is it an opportunity to improve it?

6.   Did you identify any potential for land tension at new site?

7.   Do you face inter-generational tensions related to land rights in your community (individual vs. collective land rights)? Between members of the affected and hosting community? If yes, was this considered in the relocation process? Do you think these tensions could potentially undermine land in the future?

8.   What do you suggest being done differently in future relocations to avoid post-relocation vulnerabilities related to land tensions?

C)   <u>Issues with the potential to cause conflict/tensions over the management and use of customary land (based on literature review and LMCM project):</u>

- a fear of the alienation of customary land; (rate 1-10)

- a lack of information regarding the use of land; (rate 1-10)

- a lack of input into decisions made regarding customary land; (rate 1-10)

- and an inequitable distribution of economic benefits from the use of customary land. (rate 1-10)

Ask each participant (chiefs, affected population in both origin and destination sites) to give a rating for each issue

D) <u>Identify tensions related to water (access, quality and quantity) in Lami, Suvavou and Qauiya (Category 4 or 5): Ask each participant to give a scale from -7 to 7 based on the below document "Aggressive and Passive approach scale to water conflicts" Zeitoun & Warner (2006).</u>

Aggressive and Passive approach scale to water conflicts, Zeitoun & Warner (2006)

Approaches	Scale	Event description
PASSIVE	7	Military, economic or strategic support in monitoring and maintenance.
	6	Non-military economic, technological or industrial agreement.
	5	Cultural/Scientific support (non-strategic) – community involvement and
engagement.		
	4	Official verbal support of goals, values, or plans put forward.
	3	Minor official exchanges, talks or policy expressions – mild verbal support.
	2	Mild micro – macro verbal expressions displaying discord (no action taken).
	1	Mild intra micro – micro verbal expressions displaying discord (no action taken).
NEUTRAL	0	Neutral or non-significant acts of conflicts.
AGGRESSIVE	-1	Strong micro-micro verbal expressions displaying discord with action (protests and lobbying).
	-2	Strong micro – macro verbal expressions displaying discord with action (protests and lobbying).
	-3	Law suits and protesting in streets (mild).
	-4	Use of media for strong protesting and lobbying (mild physical clashes with
authorities).		
	-5	Rioting and Hostility towards governmental ministries and municipalities (strong physical clashes with authorities).
	-6	Fighting, dislocation or high strategic costs
	-7	Fighting leading to deaths and major damages to properties, infrastructure.

References

Adams, T., Dalzell, P., & Farman, R. (1996). *Status of Pacific Island coral reef fisheries*. Paper presented at the 8th International Coral Reef Symposium, Panama, 1996. Noumea, New Caledonia: SPC Coastal Fisheries Programme.

Adger, W. N., Barnett, J., Brown, K., Marshall, N., & O'Brien, K. (2013). Cultural dimensions of climate change impacts and adaptation. *Nature Climate Change*, 3, 112-117.

Afifi, T. (2011). Economic or environmental migration? The push factors in Niger. *International Migration*, 49(S1), e95-e124.

Afolayan, A. A. & Adelekan, I. O. (1999). The role of climatic variations on migration and human health in Africa. *The Environmentalist,* 18(4), 213-218.

Albert, S., Bronen, R., Tooler, N., Leon, J., Yee, D., Ash, J., Boseto, D., & Grinham, A. (2018). Heading for the hills: climate-driven community relocations in the Solomon Islands and Alaska provide insight for a 1.5°C future. *Regional Environmental Change*, 18(8), 2261- 2272. https://doi.org/10.1007/s10113-017-1256-8.

Aleck, Jonathan. (1991) Beyond Recognition: Contemporary Jurisprudence in the Pacific Islands and the Common Law Tradition. QUT Law Review 7: 137-143, https://lr.law.qut.edu.au/article/view/347 , accessed 8 May 2019.

Aleck, Jonathan, (1993). Mismeasuring the Law: Some Misconceptions Concerning the Nature of Law and Custom in Papua New Guinea Today. TaimLine: A Journal of Contemporary Melanesian Studies 1(1): 93-109.

Allen, Matthew, Sinclair Dinnen, Daniel Evans, and Rebecca Monson (2013) Justice Delivered Locally: Systems, Challenges, and Innovations in Solomon Islands, World Bank J4P Research Report, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/09/27/000356161_20130927130401/Rendered/PDF/812990WP0DL0Se0Box0379833B00PUBLIC0.pdf , accessed 7 May 2019.

Alley, Roderic. (2017). Pacific ways: Government and politics in the Pacific islands. Commonwealth & Comparative Politics. 55. 556-559.

Andrei S, Rabbani G, Khan HI (2015) Non-economic loss and damage caused by climatic stressors in selected coastal districts of Bangladesh. Bangladesh: Bangladesh Centre for Advanced Studies. Supported by the Asian Development Bank. http://www.icccad.net/wp-content/uploads/2016/02/ADB-Study-on-Non-Economic-Losses-and-Damages-Report_Final-Version-Reduced-File-Size.compressed1.pdf. Accessed 22 Jan 2017

Angelo, A H. (1987), The Indigenous People of Tokelau and the Legal System. Law

and Anthropology: Internationales Jahrbuch für Rechtsanthropologie, Vol. 2, 347-358. Vienna: VWGÖ-Verlag.

Angelo, Tony. (2010). Rule of Law – Role of Law in the South Pacific. Governance and Self-reliance in Pacific Island Societies: Comparative Studies, Revue Juridique Polynésienne (Hors série) 10: 63-89.

Arno, Andrew, (1976), Ritual of Reconciliation and Village Conflict Management in Fiji. Oceania 47(1): 49-65, http://www.jstor.org/stable/pdf/40330266.pdf?acceptTC=true&jpdConfirm=true , Accessed 22 June 2019.

Asian Development Bank (ADB) (1998). *Handbook on resettlement: a guide to good practice*. Manila: ADB. https://www.adb.org/sites/default/files/institutional-document/32259/handbook-resettlement.pdf. Accessed 22 Aug 2019.

Asian Development Bank. (2013). *The economics of climate change in the Pacific*. Manila: ADB.

Asian Development Bank. (n.d.). *Regional cooperation on knowledge management, policy and institutional support of the Coral Triangle Initiative*. Retrieved from http://www.coraltriangleinitiative.org/sites/default/files/resources/PNG%20SCTR_web%20co py.pdf. Accessed 22 August 2019.

Australian Agency for International Development (AusAID) (2008a). *Making Land Work – Volume One: Reconciling customary land and development in the Pacific*. Canberra, AusAID. Retrieved from https://dfat.gov.au/about-us/publications/Documents/MLW_VolumeOne_Bookmarked.pdf. Accessed 22 Aug 2019.

Australian Agency for International Development (AusAID) (2008b). *Making Land Work – Volume Two: Case studies on customary land and development in the Pacific*. Canberra, AusAID. Retrieved from https://dfat.gov.au/about-us/publications/Documents/MLW_VolumeTwo_Bookmarked.pdf. Accessed 22 Aug 2019.

Ayton-Shenker, D. (1995). *The challenge of human rights and cultural diversity*. New York: United Nations Department of Public Information.

Balinuas, S. & Soon, W. (2002). Is Tuvalu really sinking? *Pacific Magazine*, 28(2) February 2002, 44-45.

Barbier, B., Yacouba, H., Karambiri, H., Zoromé, M., & Somé, B. (2009). Human vulnerability to climate variability in the Sahel: Farmers' adaptation strategies in Northern Burkina Faso. *Environmental Management*, 43(5), 2009, 790-803.

Barnett, J. (2003). Security and climate change. *Global Environmental Change,* 13(1), 7-17.

Barnett J. & Chamberlain, N. (2010). Migration as climate change adaptation:

Implications for the Pacific. In B. Burson (ed.) *Climate change and migration: South Pacific perspectives.* Wellington, New Zealand: Institute of Policy Studies.

Barnett, J. & Webber, M. (2010). *Accommodating migration to promote adaptation to climate change*. Policy Research Working Paper No 5270. Washington, DC: The World Bank.

Barry, M. & Augustinus, C. (2015). *Framework for evaluating continuum of land rights scenarios.* United Nations Human Settlement Programme (UN-HABITAT) & Global Land Tool Network (GLTN). Retrieved from http://www.ucalgary.ca/mikebarry/files/mikebarry/2- barryaugustinus-framework-for-evaluating-continuum-of-land-rights-scenarios-150915- review-copy.pdf. Accessed 22 Aug 2019.

Bavinck, C., Gupta, J. (2014) Legal pluralism in aquatic regimes: a challenge for governance Curr. Opin. Environ. Sustain., 11 (2014), pp. 78-85

Becker, E. (2015, November 12). National Oceanic and Atmospheric Administration (NOAA) November El Ni o update: It's a Small World [Blog post]. Retrieved from https://www.climate.gov/news-features/blogs/enso/november-el-ni%C3%B1o-update- it%E2%80%99s-small-world. Accessed 22 Aug 2019.

Bendandi, B. & Venier, M. (2017). *Vulnerability and resilience in West Africa: Understanding human mobility in the context of land degradation*. Global Knowledge Partnership on Migration and Development (KNOMAD) Working paper, April 2017. Retrieved from https://www.knomad.org/sites/default/files/2017-05/WP%2025_Vulnerability%20and%20resilience%20in%20West%20Africa_1.pdf. Accessed 22 Aug 2019.

Bettencourt, S., Croad, R., Freeman, P., Hay, J., Jones, R., King, P. … Van Aalst, M. (2006). *Not if but when: Adapting to natural hazards in the Pacific Islands Region: A policy note.* Washington, DC: The World Bank. Retrieved from http://siteresources.worldbank.org/INTPACIFICISLANDS/Resources/Natural-Hazards- report.pdf. Accessed 22 Aug 2019.

Betzold, C. (2014). Adapting to climate change in small island developing states. *Climatic Change*, 133(3), 481-489. https://doi.org/10.1007/s10584-015-1408-0

Bevir M., Darrington J. (2007) "Encyclopedia of Governance", SAGE publications, London.

Black, R. (2001) Environmental refugees: myth or reality? New Issues in Refugee Research, working paper No. 34: United Nations High Commissioner for Refugees (UNHCR). http://www.unhcr.org/3ae6a0d00 . Accessed 20 November 2020

Black, R., Adger, W. N., Arnell, N. W., Dercon, S., Geddes, A. and Thomas, D. (2011a) 'The effect of environmental change on human migration', Global Environmental Change, 21: S3-S11.29.

Black, R., Bennett, S. R., Thomas, S. M. and Beddington, J. R. (2011b) 'Climate change: Migration as adaptation', Nature, 478(7370): 447-449.

Blocher, J., Gharbaoui, D., & Vigil, S., (2015). West Africa: A testing ground for regional solutions. *Forced Migration Review* 49, 18-20.

Bolatagici, L. (2016, April 21). After assessments, many more Fiji villages slated for relocation. Pacific Islands Development Program, East-West Center With Support From Center for Pacific Islands Studies, University of Hawai'i. Retrieved from http://www.pireport.org/articles/2016/04/21/after-assessments-many-more-fiji-villages-slated- relocation. Accessed 22 Aug 2019.

Bothmann, Susan. (2010). Rites, Whites and Might: A Critique of the Effect of the Revival of Customary Law upon the Autonomy of Indigenous Women. In Passage of Change: Law, Society and Governance in the Pacific, 143-164. Canberra: Pandanus Books,http://www.jstor.org/stable/pdf/j.ctt24h3jd.16?&acceptTC=true&jpdConfirm=true, Accessed 01 November 2020.

Bronen, R. & Chapin, F. S. (2013). Adaptive governance and institutional strategies for climate- induced community relocations in Alaska. *PNAS,* 110(23), 9320-9325.

Biesbroek, G.R., Termeer, C.J.A.M., Klostermann, J.E.M. and P. Kabat (2013a) On the nature of barriers to climate change adaptation, Regional Environmental Change, 13 (5), 1119-1129.

Biesbroek G.R., Termeer, C.J.A.M., Klostermann, J.E.M. and P. Kabat (2013b) Analytical lenses on barriers in the governance of climate change adaptation, Mitigation and Adaptation Strategies for Global Change, p1-22.

Boyd, E. et al. (2017) "A typology of loss and damage perspectives." Nature Climate Change 7 (2017): 723-729.

Brown, Bernard. (1971). Outlook for Law in New Guinea. Oceania 41(4): 244-254, http://www.jstor.org/stable/pdf/40332159.pdf, Accessed 5 November 2020.

Brown, Kenneth. (1997). Customary Rules and the Welfare Principal: Post-Independence Custody Cases in Solomon Islands and Vanuatu. Journal of Pacific Studies 21: 83-101, http://www.usp.ac.fj/fileadmin/files/Institutes/jps/Brown.PDF, Accessed 01 November 2020.

Brundtland Commission (1987). *Our common future: Report of the World Commission on Environment and Development*. Oxford, UK: United Nations & Oxford University Press.

Byamugisha, F. (2013). *Securing Africa's land for shared prosperity: A program to scale up reforms and investments*. Washington DC: World Bank. Retrieved from http://www.scribd.com/doc/144377306/Securing-Africa-s-Land-for-Shared-Prosperity.Accessed 22 Aug 2019.

Cagilaba, V. (2005). *Fight or flight? Resilience and vulnerability in rural Fiji* (M. Soc. Sci.Thesis). University of Waikato, Hamilton, New Zealand.

Campbell, Matthew, (2002), History in Prehistory: The Oral Traditions of the Rarotongan Land Court Records. Journal of Pacific History 37(2): 221-238, http://www.tandfonline.com/doi/pdf/10.1080/0022334022000006619 , accessed 5 June 2019.

Campbell, J. R. (2006). Traditional disaster reduction in Pacific Island communities. *GNS Science Report* 2006/038, 46 p.

Campbell, J. (2008). *International relocation from Pacific Island Countries: Adaptation failure?* Paper presented to the Environment, Forced Migration & Social Vulnerability International Conference, Bonn, Germany, 9-11 October 2008. Retrieved from https://www.researchgate.net/publication/267963740_International_Relocation_from_Pacific_ Island_Countries_Adaptation_Failure. Accessed 22 Aug 2019.

Campbell, J. R. (2010). An overview of natural hazard planning in the Pacific Island region. *The Australasian Journal of Disaster and Trauma Studies*, 2010-1. Retrieved from http://trauma.massey.ac.nz/issues/2010-1/campbell.htm. Accessed 22 Aug 2019.

Campbell, J. & Barnett, J. (2010). *Climate change and small island states: Power knowledge and the South Pacific*. London: Routledge.

Campbell, J. R., Goldsmith, M., & Koshy, K. (2005). *Community relocation as an option for adaptation to the effects of climate change and climate variability in Pacific Island Countries (PICs)*. Asia-Pacific Network for Global Change Research (APN). Retrieved from https://www.sprep.org/att/irc/ecopies/pacific_region/643.pdf. Accessed 22 Aug 2019.

Camus, Albert. (1956), "The Rebel: An Essay on Man in Revolt". Knopf, New York.

Cantieri, J. (2016, June 2). Rising sea threatens traditional leadership in Kiribati. *National Geographic*. Retrieved from https://blog.nationalgeographic.org/2016/06/02/rising-sea- threatens-traditional-leadership-in-kiribati/. Accessed 22 Aug 2019.

Chandra, T. (2015). 45 Fiji villages likely to be relocated due to climate change. *Pacific Islands Report,* Pacific Islands Development program (PIDP) (originally printed in the Fiji Times). Retrieved from http://www.pireport.org/articles/2015/02/13/45-fiji-villages-likely-be- relocated-due-climate-change. Accessed 22 Aug 2019.

Charan, D., Kaur, M., & Singh, P. (2017). Customary land and climate change induced relocation: A case study of Vunidogoloa Village, Vanua Levu, Fiji. In W. Filho (ed). *Climate change adaptation in Pacific countries: Fostering resilience and improving the quality of life*. Climate Change Management Series (CCM). New York: Springer,

pp.19-33.

Cissé, P., Zorom, M., Barbier, B., & Maiga, A. Y. (2011). Les migrations, une stratégie d'adaptation à la variabilité climatique en zones sahéliennes. *Revue de Géographie du Laboratoire Leïdi* (8), 184-96.

Cleaver, J. & Hutt, K. (2017, April 27). Village relocation provides new hope for Fiji's devastated Tukuraki. *Asia Pacific Report*. Retrieved from https://asiapacificreport.nz/2017/04/27/village-relocation-provides-new-hope-for-devastated- tukuraki/. Accessed 22 Aug 2019.

Clements Kevin,, Boege Volge, Anne Brown, Wendy Foley & Anna Nolan (2007) State Building Reconsidered: the Role of Hybridity in the Formation of Political Order, Political Science, 59:1, 45-56, https://www.otago.ac.nz/ncpacs/otago065849.pdf Accessed 01 November 2020

Connell, J. (2003). Losing ground? Tuvalu, the greenhouse effect and the garbage can. *Asia- Pacific Viewpoint*, 44(2), 89-107.

Connell, J. (2012). Population resettlement in the Pacific: lessons from a hazardous history?
Australian Geographer, 43(2), 127-142.

Connell, J. & King, R. (1990). Island migration in a changing world. In J. Connell & R. King (eds). *Small worlds, global lives: Islands and migration*. London & New York: Pinter, pp.1- 26.

Connell, J. & Lutkehaus, N. (2016). Another Manam? The forced migration of the population of Manam Island, Papua New Guinea, due to volcanic eruptions 2004-2005. Geneva: IOM.

Connell, J. & Lutkehaus, N. (2017). Environmental Refugees? A tale of two resettlement projects in coastal Papua New Guinea. *Australian Geographer*, 48(1), 79-95.

Corendea, C., Bello, V., & Bryar, T. (2015). *Pacific research project: Promoting human security and minimizing conflict associated with forced migration in the Pacific region.* Pacific Islands Forum Secretariat, UNU-GCM, UNU-EHS. Retrieved from https://collections.unu.edu/eserv/UNU:3171/PacificReport.pdf. Accessed 22 August 2019.

Corfee-Morlot, J. et al., 2009: Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers N° 14, 2009, OECD publishing, Paris, France, pp. 1–125.).

Corrin Care, Jennifer and Jean G Zorn. (2001). Legislating Pluralism: Statutory 'Developments' in Melanesian Customary Law. Journal of Legal Pluralism and Unofficial Law 33(1): 49-101,

http://www.tandfonline.com/doi/pdf/10.1080/07329113.2001.10756552 , Accessed 2 June 2019.

Corrin Care, Jennifer, (2002a), Cultures in Conflict: The Role of the Common Law in the South Pacific. Journal of South Pacific Law 6(2), http://www.paclii.org/journals/fJSPL/vol06/2.shtml , Accessed 15 June 2019.

Corrin Care, Jennifer, (2006), A Green Stick or a Fresh Stick: Locating Customary Penalties in the Post-Colonial Era. Oxford University Commonwealth Law Journal 6(1): 27-60, http://heinonline.org/HOL/Print?collection=journals&handle=hein.journals/oxuclwj6&id=27&print=section&section=4&ext=.pdf , Accessed 10 June 2019.

Corrin, Jennifer. (2008a). Land, Law and the Faa-Samoa. Lawasia Journal 46: 46-69, http://heinonline.org/HOL/Print?collection=journals&handle=hein.journals/lawasiaj9&id=52&print=section&section=7&ext=.pdf, accessed 5 June 2015.

Corrin, Jennifer. (2008b). Customary Land and the Language of the Common Law. Common Law World Review 37(4): 305-333, http://heinonline.org/HOL/Print?collection=journals&handle=hein.journals/comlwr37&id=313&print=section&section=25&ext=.pdf, accessed 5 June 2015.

Corrin, Jennifer. (2008c). Resolving Land Disputes in Samoa. In Making Land Work, Vol 2, 199-220. Canberra: Australian Agency for International Development, http://dfat.gov.au/about-us/publications/Pages/making-land-work.aspx, accessed 18 June 2019.

Corrin, Jennifer. (2009). Moving Beyond the Hierarchical Approach to Legal Pluralism in the South Pacific. Journal of Legal Pluralism and Unofficial Law 59: 29-48, http://www.heinonline.org/HOL/Print?collection=fijournals&handle=hein.journals/jlpul59&id=47&print=section&section=8&ext=.pdf ,Accessed 01 November 2020.

Corrin, Jennifer. (2011). Accommodating Legal Pluralism in Pacific Courts: Problems of Proof of Customary Law. International Journal of Evidence and Proof 15(1): 1-25, http://heinonline.org/HOL/Print?collection=journals&handle=hein.journals/intjevp15&id=3&print=section&section=4&ext=.pdf , Accessed 2 June 2019.

Cretton, Viviane. (2005), Traditional Fijian Apology as a Political Strategy. Oceania 75(4): 403-417, http://www.jstor.org/stable/pdf/40331997.pdf?acceptTC=true&jpdConfirm=truehttp://www.jstor.org/stable/pdf/40331997.pdf?acceptTC=true&jpdConfirm=true , Accessed 5 June 2019.

Crocombe. R. G. (1975), The New South Pacific, New Zealand Geographer, 31: 85-88.

De Sherbinin, A., Marcia, C., & Gemenne, F. (2010). *Preparing for population displacement and resettlement associated with large climate change adaptation and mitigation projects.* Background Paper for the Bellagio Workshop, 2-6 November 2010.

http://www.ciesin.columbia.edu/confluence/download/attachments/92799210/Background_Pa per_final.pdf. Accessed 22 Aug 2019.

Dinnen S, (2018) Hybridity on the ground in peacebuilding and development, DevpolicyBlog, ANU, May 16, 2018.

Displacement Solutions (2018). *Tuvalu.* Retrieved from http://displacementsolutions.org/ds- initiatives/climate-change-and-displacement-initiative/tuvalu-climate-displacement/. Accessed 22 Aug 2019.

Donnelly, J. (2003). *Universal human rights in theory and practice*. 2nd Edition. Ithaca, NY: Cornell University Press.

Dow, K., Berkhout, F., & Preston, B. L. (2013a). Limits to adaptation to climate change: a risk approach. *Current Opinion in Environmental Sustainability*, 5(3-4), 384-391.

Dow, K., Berkhout, F., Preston, B. L., Klein, R. J. T., Midgley, G., & Shaw, R. (2013b). Limits to adaptation. *Nature Climate Change*, 3, 305-307.

Edwards, J. (2012). Location, location, relocation. *The Bula Bulletin,* April–May 2012. Retrieved from http://www.methodist.org.uk/downloads/wcr-julia-edwards-fiji-newsletter- aprilmay2012.pdf. Accessed 22 Aug 2019.

Edwards, J. (2013a). The Logistics of Climate-Induced Resettlement: Lessons from the Carteret Islands, Papua New Guinea. *Refugee Survey Quarterly*, 32(3), 52-78. https://doi.org/10.1093/rsq/hdt011

Edwards, J. (2013b, January). Climate-induced relocation: a first for Fiji. Retrieved from http://www.methodist.org.uk/media/757401/wcr-pcc-relocation-policy-fiji-jan13.pdf. 6 Accessed 25 Feb 2018

Edwards, J. (2013c). Financing the future wave of relocations. Retrieved from http://www.methodist.org.uk/media/757401/wcr-pcc-relocation-policy-fiji-jan13.pdf. Accessed 25 Feb 2018

Edwards, J. (2014). Climate justice and the Pacific conference of churches: Moving the relocation agenda in the Pacific. In L. Andrianos, J. W. Sneep, G. Kerber, & R. Attfield (eds.) *Sustainable alternatives for poverty reduction and eco-justice: Volume 1*. Newcastle, England: Cambridge Scholars Publishing.

Evans, Daniel, Michael Goddard, and Don Paterson. (2011) The Hybrid Courts of Melanesia: A Comparative Analysis of Village Courts of Papua New Guinea, Island Courts of Vanuatu and Local Courts of Solomon Islands. World Bank Justice and Development Working Paper Series 13, http://siteresources.worldbank.org/INTJUSFORPOOR/Resources/HybridCourts.pdf , Accessed 7 May 2019.

Fankhauser S, Dietz S (2014) Non-economic losses in the context of the UNFCCC work programme on loss and damage (policy paper). London School of

Economics—Centre for Climate Change Economics and Policy, Grantham Research Institute on Climate Change and the Environment.

Farbotko, C. (2010). Wishful sinking: Disappearing islands, climate refugees and cosmopolitan experimentation, *Asia Pacific Viewpoint*, 51(1), 47-60. https://doi.org/10.1111/j.1467- 8373.2010.001413.x

Farbotko, C. & Lazrus, H. (2012). The first climate refugees? Contesting global narratives of climate change in Tuvalu. *Global Environmental Change,* 22(2), 382-390.

Farran, Susan. (1997). Custom and Constitutionally Protected Fundamental Rights in the South Pacific Region: The Approach of the Courts to Potential Conflicts. Journal of Pacific Studies 21: 103-122, http://www.usp.ac.fj/fileadmin/files/Institutes/jps/Farran.PDF , Accessed 1 June 2019.

Farran, Sue. (2010). Law, Land, Development and Narrative: A Case-Study from the South Pacific. International Journal of Law in Context 6(1): 1-21, http://search.proquest.com/docview/209809584/fulltextPDF/6A708E778C894377PQ /1?accountid=14782 , accessed 5 June 2019.

Farran, S. (2011). Navigating between different land tenure and land laws in pacific island states.
Journal of Legal Pluralism and Unofficial Law, 43(64), 65-90. Retrieved from http://commission-on-legal-pluralism.com/volumes/64/farran-art.pdf. Accessed 22 Aug 2019.
Fédération Internationale des Géomètres (FIG)/Global Land Tool Network (GLTN). (2010) *The social tenure domain model: A pro-poor land tool.* FIG Publication 52. Copenhagen, Denmark: FIG. Retrieved from http://www.fig.net/pub/figpub/pub52/figpub52.htm. Accessed 22 August 2019.

Fenner, D., Speicher, M., Gulick, S., Aeby, G., Aletto, S. C., Anderson, P. .... Vroom, P. (2008). The state of coral reef ecosystems of American Samoa. In J. E. Waddell & A. M. Clarke (eds). *The state of coral reef ecosystems of the United States and Pacific Freely Associated states*. NOAA Technical Memorandum NOS NCCOS 73. Silver Spring, MD: NOAA/NCCOS Centre for Coastal Monitoring and Assessment's Biogeography Team, pp.307-352.

Ferris, E. & Stark, C. (2012). *Internal displacement in West Africa: A snapshot*. Brookings-LSE Project on Internal Displacement. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/01_ecowas_ferris_stark.pdf. Accessed 22 Aug 2019.

Fien, J., Sykes, H., & Yencken, D. (eds.) (2000). *Environment, education and society in the Asia- Pacific: Local traditions and global discourses*. London and New York: Routledge Advances in Asia-Pacific Studies.

Findley, S. (1994). Does drought increase migration? A study of migration from rural Mali during the 1983-1985 drought. *International Migration Review*, 28(3), 539-553.

Filho, Walter Borges Leal. (2020) "Managing Climate Change Adaptation in the Pacific Region." Managing Climate Change Adaptation in the Pacific Region.

Fitzpatrick, D. (2013). *Land and human mobility in the Pacific: The effects of natural disasters.* Discussion Paper, The Nansen Initiative. Retrieved from https://www.pacificclimatechange.net/sites/default/files/documents/DP_Land_and_Human_M obility_in_the_Pacific_the_Effects_of_Natural_Disasters.pdf. Accessed 22 Aug 2019.

Fletcher, S., Thiessen, J., Gero, A., Rumsey, M., Kuruppu, N., & Willets, J. (2013). Traditional coping strategies and disaster response: Examples from the South Pacific region. *Journal of Environmental and Public Health,* Volume 2013, Article ID 264503, 9 p. https://doi.org/10.1155/2013/264503

Follesdal, A. (2005). Human rights and relativism. In A. Follesdal & T. Pogge (eds). *Real world justice: Grounds, principles, human rights standards and institutions*. New York: Springer, pp.265-283.

Fonmanu, K. R., Ting, L., & Williamson, I. P. (2003). Dispute resolution for customary lands: some lessons from Fiji. *Survey Review,* 37(289), 177-189.

Food and Agriculture Organization of the United Nations (FAO) (2002). *Land tenure and rural development*. FAO Land Tenure Studies 3. Rome: FAO. Retrieved from http://www.fao.org/3/a-y4307e.pdf. Accessed 22 August 2019.

Food and Agriculture Organization of the United Nations (FAO) (2012) *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*. Rome: FAO. Retrieved from http://www.fao.org/docrep/016/i2801e/i2801e.pdf. Accessed 22 August 2019.

Foresight Project and Government Office for Science, G. B. (2011) Migration and global environmental change: Future challenges and opportunities, London: Government Office for Science.

Foresight (2011). *Migration and global environmental change: Future challenges and opportunities.* Final Project Report. London, UK: Government Office for Science.

Fornale E., Kagan, S. (2017:30) Climate Change and Human Mobility in the Pacific Region: Plans, Policies and Lessons Learned, Global Knowledge Partnership on Migration and Development (KNOMAD)

Forsyth, Miranda. (2004). Beyond Case Law: Kastom and Courts in Vanuatu. Victoria University of Wellington Law Review 35: 427-446, http://www.upf.pf/IMG/pdf/09_Forsyth.pdf, Accessed 05 November 2020.

Forsyth, Miranda. (2006). Sorcery and the Criminal Law in Vanuatu. Lawasia 1: 1-27,

http://heinonline.org/HOL/Print?collection=journals&handle=hein.journals/lawasiaj7&id=7&print=section&section=5&ext=.pdf, Accessed 05 November 2020

Forsyth, Miranda. (2009). A Bird That Flies With Two Wings: Kastom and State Justice Systems in Vanuatu. Canberra: ANU Press, http://press.anu.edu.au?p=49351, Accessed 05 November 2020

Fox, L. (2016, September 9). Fiji relocates villages vulnerable to natural disasters as part of Cyclone Winston rebuild. *ABC News*. Retrieved from http://www.abc.net.au/news/2016-09- 09/fiji-relocates-villages-as-part-of-cyclone-winston-rebuild/7831630. Accessed 22 Aug 2019.

Leonard, R., & Longbottom, J.M. (2000:23). Land tenure lexicon: a glossary of terms from English and French speaking West Africa.

Lindegaard, S. L. Funder, M. (2017). *Climate change and planned relocation: How climate resettlement can work for communities.* Danish Institute for International Studies, Policy Brief, November 2017. Retrieved from http://pure.diis.dk/ws/files/1215433/Planned_Relocation_WEB.pdf. Accessed 22 Aug 2019.

Galtung, J. (1971). A Structural Theory of Imperialism. *Journal of Peace Research,* 8(2), 81-117. https://doi.org/10.1177/002234337100800201

Gegeo, David W, (1998) Indigenous Knowledge and Empowerment: Rural Development, The Contemporary Pacific , Vol. 10, No. 2 (FALL 1998), University of Hawai'i Press, pp. 289-315, https://www.jstor.org/stable/23706891 , Accessed 01 November 2020

Development Working Paper Series 13, http://siteresources.worldbank.org/INTJUSFORPOOR/Resources/HybridCourts.pdf, accessed 7 May 2015

Gemenne, F. (2010). Tuvalu, un laboratoire du changement climatique ? Une critique empirique de la rhétorique des « canaris dans la mine ». *Revue Tiers Monde*, 204(4), 89-107.

Gemenne, F., Blocher, J., de Longueville, F., Perrin, N., Vigil, S., Zickgraf, C., Gharbaoui, D., & Ozer, P. (2014). Natural disasters, climate change and forced displacement; Regional dynamics of mobility in West Africa. *The Nansen Initiative: Disaster-Induced Cross-Border Displacement.* Geneva: Nansen.

Gemenne, F. & Blocher, J. (2016). *How can migration support adaptation? Different options to test the migration-adaptation nexus.* Migration, Environment and Climate Change: Working Paper Series, No. 1/2016. Geneva: IOM.

Gemenne, F. & Blocher, J. M. (2017). How can migration serve adaptation to climate change? Challenges to fleshing out a policy ideal. *The Geographical Journal*, 2017, 1-12. Retrieved from https://collections.unu.edu/eserv/UNU:5960/Geoj_Journal.pdf.

[Accessed 22 Aug 2019](#).

Gerrard, E. (2008) Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). Impacts and opportunities of climate change: Indigenous participation in environmental markets. Land, Rights, Laws: Issues of Native Title. Volume 3, Issue Paper No. 13, Native Title Research Unit, 1-14. Retrieved from http://www5.austlii.edu.au/au/journals/LRightsLaws/2008/2.pdf . Accessed 22 Aug 2019.

Gharbaoui D. & Blocher J. (2016). The reason land matters: Relocation as adaptation to climate change in Fiji Islands. In A. Milan (et. al.) (eds.) *Migration, Risk Management and Climate Change: Evidence and Policy Responses*. Global Migration Issues, Volume 6. Cham: Springer, pp.149-173. https://doi.org/10.1007/978-3-319-42922-9_8

Gharbaoui, D. & Blocher, J. (2016b). *The reason place matters; Climate change and community relocation in Fiji and Papua New Guinea*. Macmillan Brown Centre for Pacific Studies Policy Brief Series, Pacific Policy Brief 2016/7. Christchurch: University of Canterbury.

Gharbaoui D. & Blocher J. (2018). Limits to adapting to climate change through relocations in Papua-New Guinea and Fiji. In W. L. Filho & J. Nalau (eds). *Limits to Climate Change Adaptation*. Climate Change Management Series. Cham: Springer, pp.359-379.

Goddard, Michael. (2005). Research and Rhetoric on Women in Papua New Guinea's Village Courts. Oceania 75(3): 247-267, http://www.jstor.org/stable/pdf/40332083.pdf?acceptTC=true&jpdConfirm=true, Accessed 5 June 2019.

Goddard, Michael. (2010a). Justice Delivered Locally: Solomon Islands, World Bank J4P Literature Review. Washington: World Bank.

Gosarevski, S., Hughes, H., & Windybank, S. (2004). Is Papua New Guinea viable? *Pacific Economic Bulletin,* 19(1), 134-48.

Government of Fiji (GoF) (2018). *Fiji: Planned relocation guidelines: A framework to undertake climate change related relocation (2018)*. Fiji: Ministry of Economy. Available at https://www.refworld.org/docid/5c3c92204.html. Accessed 22 Aug 2019.

Government of Kiribati (GoK) (2007). *Republic of Kiribati National Adaptation Program of Action (NAPA)*. Tarawa, Kiribati: Environment and Conservation Division, Ministry of Environment, Land, and Agricultural Development. Retrieved from https://unfccc.int/resource/docs/napa/kir01.pdf. Accessed 22 Aug 2019.

Government of Papua New Guinea (GoPNG) (2007). *The National Land Development Taskforce report: Land administration, land dispute settlement, and customary land*

development.
Monograph No. 39. Port Moresby: National Research Institute.

Government of Papua New Guinea (GoPNG) (2009). *Papua New Guinea Vision 2050.* Port Moresby: National Strategic Plan Taskforce.

Government of Papua New Guinea (GoPNG) (2012). *Systems, process and institutions. PNG Decent Country Program.* Monograph. Port Moresby: Department of Labour and Industrial Relations.

Government of Papua New Guinea (GoPNG) (2012). Papua New Guinea's strategic program for climate resilience. Retrieved from https://www.climateinvestmentfunds.org/sites/cif_enc/files/strategic_program_for_climate_res ilience_for_papua_new_guinea_0.pdf. Accessed 22 Aug 2019.

Government of Papua New Guinea (GoPNG) & Government of New Zealand (GoNZ) (2013). Recognised seasonal employer policy: Inter-agency understanding Papua New Guinea. Retrieved from http://www.pngworkers4u.com/assets/iau-tab-inter-agency-understanding- between-png---nz.pdf. Accessed 22 Aug 2019.

Government of Tuvalu (GoT) (2007). *Tuvalu's National Adaptation Programme of Action (NAPA) under the Auspices of the United Framework Convention on Climate Change*. Ministry of Natural Resources, Environment, Agriculture and Lands, Department of Environment. Retrieved from https://unfccc.int/resource/docs/napa/tuv01.pdf. Accessed 22 Aug 2019.

Gravelle, G. & Mimura, N. (2008). Vulnerability assessment of sea-level rise in Viti Levu, Fiji Islands. *Sustainability Science*, 3(2), 171-180.

Guo, Pei-yi. (2011). Law as Discourse: Land Disputes and the Changing Imagination of Relations Among the Langalanga, Solomon Islands. Pacific Studies 34(2/3): 223-249, https://ojs.lib.byu.edu/spc/index.php/PacificStudies/article/view/30819/29278, Accessed 5 November 2020.

Haines-Sutherland, K. (2010). Balancing human rights and customs in the Pacific region: A Pacific charter of human rights? *The ANU Undergraduate Research Journal*, (2), 125-141. Retrieved from http://press-files.anu.edu.au/downloads/press/n1676/pdf/ch08.pdf. Accessed 22 Aug 2019.

Hauffman, K. (2009, February 9). A Palmy balm for the financial crisis. *Sydney Morning Herald*. Retrieved from https://www.smh.com.au/national/a-palmy-balm-for-the-financial-crisis- 20090209-gdtcr4.html. Accessed 22 Aug 2019.

Hay, J. E., Mimura, N., Campbell, J. R., Fifita, S., Koshy, K., Mclean, R. … & de Wet, N. (2003). *Climate variability and change and sea-level rise in the Pacific Islands region: A resource book for policy and decision makers, educators and other stakeholders*. Apia, Samoa: South Pacific Regional Environment Programme (SPREP).

Henry, S., Schoumaker, B., & Beauchemin, C. (2004). The impact of rainfall on the first out- migration: A multi-level event-history analysis in Burkina Faso. *Population and Environment*, 25(5), 423-460.

Hughes, A. V. (2005). *Strengthening regional management: A review of the architecture for regional co-operation in the Pacific.* Consultative Draft Report to the Pacific Islands Forum. Retrieved from https://gsd.spc.int/sopac/docs/RIF/06_AV%20Hughes%20Report_CONSULTATIVE_DRAF T(1).pdf. Accessed 22 Aug 2019.

Hugo, G. (1996). Environmental concerns and migration. *International Migration Review,* 30(1), 105-131.

Hugo, G. (1996) 'Environmental concerns and international migration', International Migration Review: 105-131.

Hugo, G. (2008) Migration, development and environment, Geneva: IOM. Available at: http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published_docs/serial_publications/MRS35_updated.pdf . Accessed 30 October 2020.

Hugo, G. (2011) 'Future demographic change and its interactions with migration and climate change', Global Environmental Change, 21: S21-S33.

Hviding, E., & Baines, G. B. (1994). Community-based fisheries management, tradition and the challenges of development in Marovo, Solomon Islands. Development and Change, 25(1), 13-39.

Inter-Agency Standing Committee of the United Nations (IASC) (2010). *IASC framework on durable solutions for Internally Displaced Persons.* The Brookings – Bern Project on Internal Displacement. Retrieved from https://www.unhcr.org/50f94cd49.pdf. Accessed 22 Aug 2019.

Inter-Agency Standing Committee of the United Nations (IASC) (2011). *Operational guidelines on the protection of persons in situations of natural disasters.* The Brookings – Bern Project on Internal Displacement. Retrieved from http://www.ohchr.org/Documents/Issues/IDPersons/OperationalGuidelines_IDP.pdf. Accessed 22 Aug 2019.

Intergovernmental Panel on Climate Change (IPCC) (2007a). *Climate change 2007: Synthesis report. Contribution of Working Groups I, II and III to the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change*. Geneva, Switzerland: IPCC. Available from https://www.ipcc.ch/report/ar4/syr/. Accessed 22 August 2019.

Intergovernmental Panel on Climate Change (IPCC) (2007b). *Climate Change 2007: Impacts, adaptation and vulnerability.* Contribution of Working Group II to the Fourth Assessment Report of the IPCC. Cambridge & New York: Cambridge University Press. Retrieved from

https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf. Accessed 22 Aug 2019.

Intergovernmental Panel on Climate Change (IPCC) (2012). *Managing the risks of extreme events and disasters to advance climate change adaptation: Special report of the Intergovernmental Panel on Climate Change.* Cambridge & New York: Cambridge University Press. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_Full_Report- 1.pdf. Accessed 22 Aug 2019.

Intergovernmental Panel on Climate Change (IPCC) (2014a). Chapter 29: Small islands. *Climate Change 2014: Impacts, adaptation and vulnerability – Part B: Regional aspects.* Cambridge & New York: Cambridge University Press. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap29_FINAL.pdf. Accessed 22 Aug 2019.

Intergovernmental Panel on Climate Change (IPCC) (2014b). Chapter 16: Adaptation opportunities, constraints and limits. *Climate Change 2014: Impacts, adaptation and vulnerability – Part A: Global and sectoral aspects.* Cambridge & New York: Cambridge University Press. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5- Chap16_FINAL.pdf

International Organization for Migration (IOM) (2015). *Assessing the evidence: Migration, environment and climate change in Papua New Guinea*. IOM: Geneva. Retrieved from https://publications.iom.int/system/files/pdf/meclep_assessment_png.pdf. Accessed 22 Aug 2019.

IRIN News (2008, October 21). Climate change's threat to water needs more study. Retrieved from http://www.thenewhumanitarian.org/news/2008/10/21/climate-changes-threat-water- needs-more-study. Accessed 22 Aug 2019.

IRIN News (2013, July 18). Papua New Guinea government improves disaster preparedness funding. Retrieved from http://www.thenewhumanitarian.org/feature/2013/07/18/papua-new- guinea-government-improves-disaster-preparedness-funding. Accessed 22 August 2019.

Janif, S. Z., Nunn, P. D., Geraghty, P., Aalbersberg, W., Thomas, F. R., & Camailakeba, M. (2016). Value of traditional oral narratives in building climate-change resilience: Insights from rural communities in Fiji. *Ecology and Society*, 21(2) Art.7. Retrieved from http://www.ecologyandsociety.org/vol21/iss2/art7/#Relocation. Accessed 22 August 2019.

Jolly, Margaret (1992) Custom and the Way of the Land: Past and Present in Vanuatu and Fiji. Oceania 62(4): 330-354, http://www.jstor.org/stable/pdf/40332509.pdf?acceptTC=true , Accessed 5 June 2019.

Johnson, R. W. (2013). *Fire mountains of the islands: A history of volcanic eruptions and disaster management in Papua New Guinea and the Solomon Islands*. Canberra: Australian National University Press.

Jones, R. N. & Preston, B. L. (2011). *Adaptation and risk management*. Wiley Interdisciplinary Reviews: Climate Change, 2, pp.296-308.

Jones, R.N. A. Patwardhan, S.J. Cohen, S. Dessai, A. Lammel, R.J. Lempert, M.M.Q. Mirza, and H. von Storch,(2014), Foundations for Decision-Making. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 195–228.

Joshua Foa Dienstag (2006) "Pessimism: Philosophy, Ethic, Spirit" Princeton University Press.

Kalin, W. (2010). Chapter 5: Conceptualizing climate-induced displacement. In J. McAdam (ed).
Climate change and displacement: Multidisciplinary perspectives. Oxford, UK: Hart Publishing, pp.81-103.

Kiribati National Statistics Office (2017, January 8). Kiribati stats at a glance. Retrieved from https://web.archive.org/web/20170108172952/http:/www.mfed.gov.ki/statistics/. Accessed 22 Aug 2019. (NB: This is an archive of the original site, which is no longer active)

Kirsch, S. (2001). Lost worlds: Environmental disaster, 'Culture Loss,' and the Law. *Current Anthropology*, 42(2), 167-198.

Klein, R. J. T., Midgley, G. F., Preston, B. L., Alam, M., Berkhout, F. G. H., Dow, K., & Shaw, M. R. (2014). Chapter 16: Adaptation opportunities, constraints and limits. In. Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2014: Impacts, adaptation and vulnerability – Part A: Global and sectoral aspects.* Cambridge & New York: Cambridge University Press. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap16_FINAL.pdf

Klinke, A. & Renn, O. (2002). A new approach to risk evaluation and management: Risk-based, precaution-based, and discourse-based strategies. *Risk Analysis*, 22(6), 1071-1094.

Kniveton, D., Schmidt-Verkerk, K., Smith, C., & Black, R. (2008). *Climate change and migration: Improving methodologies to estimate flows.* Paper No. 33, International Organization for Migration (IOM) Migration Research Series. Geneva: IOM.

Kniveton, D., Smith, C., & Wood, S. (2011). Agent-based model simulations of future changes in migration flows for Burkina Faso. *Global Environmental Change,*

21(Suppl. 1), s34–s40. https://doi.org/10.1016/j.gloenvcha.2011.09.006

Koch, Klaus-Friedrich, Soraya Altorki, Andrew Arno, and Letitia Hickson. (1977) Ritual Reconciliation and the Obviation of Grievances: A Comparative Study in the Ethnography of Law. Ethnology 16(3): 269-283, http://www.jstor.org/stable/pdf/3773312.pdf?acceptTC=true , Accessed 15 June 2019.

Kuemlangan, B. (2004). Creating legal space for community-based fisheries and customary marine tenure in the Pacific: issues and opportunities. Food and Agriculture Organization of the United Nations (FAO). http://www.fao.org/3/ad937e/ad937e00.html   Accessed 5 November 2020

Kuemlangan, B. (2004). Creating legal space for community-based fisheries and customary marine tenure in the Pacific: issues and opportunities. https://www.semanticscholar.org/paper/Creating-legal-space-for-community-based-fisheries-Kuemlangan/ad06770d600a799f7809101385558187b28e8f05. Accessed 5 November 2020

Lal, P. N. (2012). *Climate change adaptation in the Pacific: making informed choices – Summary for decision makers*. Suva, Fiji: International Union for Conservation of Nature (IUCN). Retrieved from https://www.environment.gov.au/system/files/resources/f7bc7797-24d9-4784- 8983-1b673ea2e940/files/iucn-summary-making-informed-choices.pdf. Accessed 22 Aug 2019.

Larmour, P. (2013) The Governance of Common Property in the Pacific Region, ANU Press, https://openresearch-repository.anu.edu.au/bitstream/1885/132677/1/PPP_19.pdf , accessed 01 November 2020

Lea, D. (2009). New initiatives in the development of customary land: group versus individual interests. *Pacific Economic Bulletin,* 24(1), 49-64.

Leckie, S. (2016). *Land solutions for climate displacement*. Abingdon, UK: Routledge.

Leonard, R., & Longbottom, J.M. (2000). Land tenure lexicon: a glossary of terms from English and French speaking West Africa.

Levine S., (2016) Pacific Ways. Government and Politics in the Pacific Islands. Second Edition, Victoria University Press, pp. 416.

Lieber, M. D. (1977). *Exiles and migrants in Oceania*. Monograph No. 5, Association for Social Anthropology in Oceania (ASAO) Monograph Series, Honolulu: University Press of Hawaii.

Loode, S., Nolan, A., Brown, A., & Clements, K. (2009). *Conflict management processes for land-related conflict.* Suva, Fiji: Pacific Islands Forum Secretariat.

Available from
https://www.academia.edu/20422779/Conflict_management_processes_for_land-related_conflict.

López-Carr, D. & Marter-Kenyon, J. (2015). Human adaptation: Manage climate-induced resettlement. *Nature*, 517, 265-267.

Lutkehaus, N. C. (2016). Finishing Kapui's name: Birth, death and the reproduction of Manam Society, Papua New Guinea. In D. Lipset & E. K. Silverman (eds). *Mortuary dialogues: Death ritual and the reproduction of moral community in Pacific Modernities.* New York and Oxford: Barghahn, pp.136-158.

McAdam, J. (ed). (2010). *Climate change and displacement: Multidisciplinary perspectives.* Oxford, UK: Hart Publishing.

McAdam, J. (2014). Historical cross-border relocations in the Pacific: Lessons for planned relocations in the context of climate change. *Journal of Pacific History,* 49(3), 301-327. https://doi.org/10.1080/00223344.2014.953317

McAdam, J. (2015). Lessons from planned relocation and resettlement in the past. *Forced Migration Review,* 49, 30-32.

McAdam, J. & Ferris, E. (2015). Planned Relocations in the context of climate change: Unpacking the legal and conceptual issues, *Cambridge Journal of International and Comparative Law*, 4(1), 137-66. https://doi.org/10.7574/cjicl.04.01.137

McLachlan, C A. (1988). State Recognition of Customary Law in the South Pacific. Unpublished University of London PhD Thesis

McNamara, K. & Gibson, C. (2009). 'We do not want to leave our land': Pacific ambassadors at the United Nations resist the category of 'climate refugees'. *Geoforum,* 40(3), 475-483.

McNamara, K. E. (2015). Cross-border migration with dignity in Kiribati. *Forced Migration Review*, 49, 62. Available from https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/climatechange-disasters/mcnamara.pdf. Accessed 22 Aug 2019.

McNamara, K. E. & Des Combes, H. J. (2015). Planning for community relocations due to climate change in Fiji. *International Journal of Disaster Risk Science*, 6(3), 315-319.

Mertz, O., Mbow, C., Reenberg, A., & Diouf, A. (2009). Farmers' perceptions of climate change and agricultural adaptation strategies in rural Sahel. *Environmental Management,* 43(5), 804- 816.

Merry, Sally Engle. (2006), Human Rights and Gender Violence: Translating International Law into Local Justice. Chicago: University of Chicago Press.

Meze-Hausken, E. (2000). Migration caused by climate change: How vulnerable are people in dryland areas? *Mitigation and Adaptation Strategies for Global Change*, 5(4), 379-406.

Midgley, J. (1995). *Social Development: The Developmental Perspective in Social Welfare.* London: Sage.

Mitchell, D., Orcherton, D., Numbasa, G., & McEvoy, D. (2016). *The implications of land issues for climate resilient informal settlements in Fiji and Papua New Guinea*. London: Royal Institution of Chartered Surveyors (RICS). Available from https://www.researchgate.net/publication/299534023_The_implications_of_land_issues_for_c limate_resilient_informal_settlements_in_Fiji_and_Papua_New_Guinea. Accessed 22 Aug 2019.

Mitchell, D. P., Antonio, D. R., Storey, D., CheeHai, T. & Rosales-Kawasaki, L. (2016). *Land Tenure in Asia and the Pacific: Challenges, Opportunities and Way Forward*. Report 6/2015. Nairobi: UN-HABITAT. https://doi.org/10.2139/ssrn.2737103 Accessed 22 Aug 2019.

Monnereau, I. & Abraham, S. (2013). Limits to autonomous adaptation in response to coastal erosion in Kosrae, Micronesia. *International Journal of Global Warming*, 5(4), 416-432.

Moser, S. C. & Ekstrom, J. A. (2010). A framework to diagnose barriers to climate change adaptation. *Proceedings of the National Academy of Sciences (PNAS)*, 107(51), 22026-22031.

Morrissey J, Oliver-Smith A (2013) Perspectives on non-economic loss and damage: understanding values at risk from climate change. Loss and damage series, United Nations University Institute for Environment and Human Security, Bonn. http://loss-and-damage.net/download/7308.pdf Accessed 22 Jan 2017

Mortreux Colette, Ricardo Safra de Campos, W. Neil Adger, Tuhin Ghosh, Shouvik Das, Helen Adams, Sugata Hazra (2018), Political economy of planned relocation: A model of action and inaction in government responses, Global Environmental Change, Volume 50, 2018, Pages 123-132.

Mulina, K., Sukua, J., & Tibong, H. (2011). *Report on Madang Volcanic Hazards Awareness Program. 6-29th September 2011*, Rabaul Vulcanological Observatory.

Nabobo-Baba, U. (2008). Decolonising framings in Pacific research: Indigenous Fijian Vanua research framework as an organic response. *AlterNative: An International Journal of Indigenous Peoples*, 4(2), 141-154.

Nalu, M. (2011, January 14). The tragedy of Manam Islanders… refugees in their own country [Blog post]. Retrieved from https://malumnalu.blogspot.com/2011/01/tragedy-of-manam- islandersrefugees-in.html. Accessed 22 Aug 2019.

Nansen Initiative (2011). Conclusion: Nansen Initiative Pacific Regional Consultation. Retrieved from https://www.nab.vu/sites/default/files/nab/documents/31/05/2013%20-%2010%3A00/conclusion_document_nansen_initiative_pacific_consultation.pdf Accessed 22 Aug 2019.

Nansen Initiative (2013). *Human mobility, natural disasters and climate change in the Pacific: Report from the Nansen Initiative Pacific Regional Consultation, 21-24 May 2013 (Rarotonga, Cook Islands).* Geneva: Nansen Initiative. Retrieved from https://www.nanseninitiative.org/wp-content/uploads/2015/07/OR_Human_Mobility_Natural_Disasters_and_Climate_Change_in_t he_Pacific.pdf. Accessed 22 Aug 2019.

Ndiaye, M. & Robin, N. (2010). Les migrations internationales en Afrique de l'Ouest. *Hommes & Migrations,* No. 1286-1287, 48-61.

New Zealand Law Commission (NZLC) (2006). *Converging currents: Custom and human rights in the Pacific*. NZLC Study Paper 17. Retrieved from https://www.lawcom.govt.nz/sites/default/files/projectAvailableFormats/NZLC%20SP17.pdf. Accessed 22 Aug 2019.

Nicholls, R. J. (2003). *Working party on global and structural policies: Case study on sea-level rise impacts.* Paper prepared for the OECD Workshop on the Benefits of Climate Policy: Improving Information for Policy Makers, 12-13 December 2002. Paris: OECD. Retrieved from http://www.oecd.org/dataoecd/7/15/2483213.pdf. Accessed 22 Aug 2019.

Nurse, L. & Moore, R. (2005). Adaptation to global climate change: An urgent requirement for Small Island Developing States. *Review of European Community and International Environmental Law*, 14(2), 100-107.

OFDA/CRED International Disaster Database (EM-DAT) (2015). Brussels: Université Catholique de Louvain. Available at http://www.emdat.be. Accessed 22 August 2019.

Office of the President of the Republic of Kiribati, Kiribati Climate Change, December 2018. http://www.climate.gov.ki/category/action/relocation/ Accessed Dec 2018.

Otto-Banaszak, I., Matczak, P., Wesseler, J. et al. (2011) Different perceptions of adaptation to climate change: a mental model approach applied to the evidence from expert interviews. Reg Environ Change 11, 217–228.

Ouédraogo, M., Dembélé, Y., & Somé, L. (2010). Perceptions et stratégies d'adaptation aux changements des précipitations: cas des paysans du Burkina Faso. *Science et Changements Planétaires / Sécheresse*, 21(2), 87-96.

Ozer, P., Hountondji, Y. C., Niang, A. J., Karimoune, S., Laminou Manzo, O., & Salmon, M. (2010). Désertification au Sahel: historique et perspectives. *Bulletin de la Société Géographique de Liège,* 54, 69-84.

Pareti, S. (2013, May). Climate refugees? More coastal villages may have to relocate due to eroding shorelines and coastal flooding. *Island Business*. Retrieved from http://www.islandsbusiness.com/2013/5/fiji-business/climate-refugees/. Accessed 25 Feb 2016.

Perry, M. (2005, November 24). Rising seas, disappearing islands to cause environmental refugees in a warming world. Retrieved from http://news.mongabay.com/2005/1124- reuters.html. Accessed 22 Aug 2019.

Perry, R. W. & Lindell, M. K. (1997). Principles for managing community relocation as a hazard mitigation measure. *Journal of Contingencies and Crisis Management*, 5(1), 49-59.

Pulea, M., & South Pacific Commission. (1987). Customary law relating to the environment: South Pacific region, an overview, South Pacific Commission, Noumea (New Caledonia).

Radio Australia (2012, September 26). Manam Islanders Displaced by Volcano to Re-settle. Retrieved from https://reliefweb.int/report/papua-new-guinea/manam-islanders-displaced- volcano-re-settle. Accessed 22 Aug 2019.

Radio New Zealand (2006, August 7). PNG government commended for establishing Manam resettlement authority. Retrieved from http://www.radionz.co.nz/international/pacific- news/163830/png-government-commended-for-establishing-manam-resettlement-authority. Accessed 22 August 2019.

Ravuvu, A. D. (1988). *Development or dependence: The pattern of change in a Fijian village*. Institute of Pacific Studies and Fiji Extension Centre. Suva: University of the South Pacific.

Renaud, F. G., Dun, O., Warner, K., & Bogardi, J. (2011). A decision framework for environmentally induced migration. *International Migration*, 49(s1), e5-e29.

Renn, O. (2008). *Risk governance: Coping with uncertainty in a complex world*. London: Earthscan.

Responding to Climate Change (RTCC) (2014, January 17). Fiji village relocated under climate change programme [Press release]. Available from https://www.preventionweb.net/news/view/36183. Accessed 22 Aug 2019.

Rokocoko, V. (2006). Fight and flight: Challenges faced by two Fijian villages adapting to climate change. *Oceanic Waves*, 8(4).

Rohe Janne, Hugh Govan, Achim Schlüter, Sebastian C.A. Ferse, (2019) A legal pluralism perspective on coastal fisheries governance in two Pacific Island countries, Marine Policy, Volume 100, 2019, Pages 90-97.

Secretariat of the Pacific Community (SPC) (2014, August 21). Narikoso villagers

elated with first harvest since planned relocation [Press release]. Available at https://reliefweb.int/report/fiji/narikoso-villagers-elated-first-harvest-planned-relocation. Accessed 22 Aug 2019.

Secretariat of the Pacific Community (SPC) (2016, July 21). Tukuraki village relocation [Press Release]. Available at http://reliefweb.int/report/fiji/tukuraki-village-relocation. Accessed 22 Aug 2019.

Secretariat of the Pacific Regional Environment Program (SPREP) (2009). *Pacific adaptation to climate change Cook Islands: Report of in-country consultations.* Retrieved from http://www.sprep.org/att/irc/ecopies/countries/cook_islands/67.pdf. Accessed 22 August 2019.

Serdeczny O, Waters E, Chan S (2016b) Non-economic loss and damage. Understanding the challenges. German Development Institute discussion paper 2016, 3. https://www.die-gdi.de/uploads/media/DP_3.2016.pdf . Accessed 22 Jan 2019

Serdeczny, Olivia. (2017). What Does It Mean to "Address Displacement" Under the UNFCCC? - An Analysis of the Negotiations Process and the Role of Research.

Serdeczny O. (2019) Non-economic Loss and Damage and the Warsaw International Mechanism. In: Mechler R., Bouwer L., Schinko T., Surminski S., Linnerooth-Bayer J. (eds) Loss and Damage from Climate Change. Climate Risk Management, Policy and Governance. Springer.

Serge, L., Nolan, A., Brown, A., & Clements, K. (2009). *Conflict management processes for land-related conflict.* Suva, Fiji: Pacific Islands Forum Secretariat. https://www.academia.edu/20422779/Conflict_management_processes_for_land-related_conflict. Accessed 22 Aug 2019.

Shen, S. & Binns, T. (2012). Pathways, motivations and challenges: Contemporary Tuvaluan migration to New Zealand. *GeoJournal*, 77(1), 63-82.

Shen, S. & Gemenne, F. (2011). Contrasted views on environmental change and migration: The case of Tuvaluan migration to New Zealand. *International Migration*, 49(S1), e224-e242.

Shisei, R. (2016, April 8). Manam resettlement bill passed. *EM TV News.* Retrieved from https://emtv.com.pg/manam-resettlement-bill-passed-2/. Accessed 22 Aug 2019.

Shultz, J. M., Cohen, M. A., Hermosilla, S., Espinel, Z., & McLean, A. (2016). Disaster risk reduction and sustainable development for Small Island Developing States. *Disaster Health*, 3(1), 32-44. https://doi.org/10.1080/21665044.2016.1173443

Sitiveni, Halapua. (2000). *Talanoa process: The case of Fiji*. Honolulu, Hawai'i: East-West Centre. Available at http://unpan1.un.org/intradoc/groups/public/documents/un/unpan022610.pdf.

Accessed 22 Aug 2019.

Sigrah, Ken Raobeia and Stacey King. (2004) Essentially Being Banaban in Today's World: The Role of Banaban Law 'Te Rii ni Banaba' (Backbone of Banaba) in a Changing World. Changing Islands – Changing Worlds, Islands of the World VIII International Conference, 1-7 November 2004, http://www.banaban.info/ISISA2004Paper-Ken.pdf , accessed 18 October 2019.

Smith, R. K. M. (2007). *Textbook on International Human Rights*. 3rd Edition. Oxford & New York: Oxford University Press.

Sow, P., Adaawen, S. A., & Scheffran, J. (2014). Migration, social demands and environmental change amongst the Frafra of Northern Ghana and the Biali in Northern Benin. *Sustainability,* 6(1), 375-98.

Thaman, K. H. (2000). Cultural rights: A personal perspective. In M. Wilson & P. Hunt (eds). *Culture, rights and cultural rights: Perspectives from the South Pacific*. Wellington, New Zealand: Huia.

Timmer J (2011) Pacific Ways: Government and Politics in the Pacific Islands. Edited by Stephen Levine. Reviewed by Jaap Timmer, Pacific Affairs, Volume 84 – No. 2, June 2011 https://www.academia.edu/688145/Review_of_Levine_ed._2009_Pacific_Ways_Government_and_Politics_in_the_Pacific_Islands?sm=b. Accessed 01 November 2020

Tobin, B. (2008). *The role of customary law in access and benefit-sharing and traditional knowledge governance: Perspectives from Andean and Pacific Island countries.* United Nations University (UNU)/World Intellectual Property Organization (WIPO). Retrieved from www.wipo.int/export/sites/www/tk/en/resources/pdf/customary_law_abs_tk.pdf. Accessed 22 Aug 2019.

Thomas K, Hardy RD, Lazrus H, et al. (2019) Explaining differential vulnerability to climate change: A social science review. Wiley Interdiscip Rev Clim Change. 2019;10(2)

Tomlinson, M. (2015). Gender in a land-based theology. *Oceania*, 85(1), 79-91.

Treanor, P. (2004). Why human rights are wrong. Retrieved from http://web.inter.nl.net/users/Paul.Treanor/human-rights.html. Accessed 22 Aug 2019.

Tschakert, P. (2007). Views from the vulnerable: Understanding climatic and other stressors in the Sahel. *Global Environmental Change,* 17(3-4), 381-96.

Turagaiviu, E. (2015, October 29). 830 Fijian communities at risk from climate change. *Fiji Broadcasting Corporation*. Retrieved from http://www.fbc.com.fj/fiji/34377/-830-fijian- communities-at-risk-from-climate-change.

Tuwere, I. S. (2002). *Vanua: towards a Fijian theology of place*. Institute of Pacific Studies, University of the South Pacific, Fiji.

United Nations Convention to Combat Desertification (UNCCD) & Common Fund for Commodities (CFC) (2009). *African Drylands Commodity Atlas.* Bonn, Germany: Secretariat of the United Nations Convention to Combat Desertification.

United Nations Convention to Combat Desertification (UNCCD), (2009). *UNCCD Factsheets.* Bonn, Germany: Secretariat of the United Nations Convention to Combat Desertification.

United Nations Convention to Combat Desertification (UNCCD), (2011). *Land and soil in the context of a green economy for sustainable development, food security and poverty eradication.* Submission of the UNCCD Secretariat to the Preparatory Process for the Rio+ 20 Conference. Bonn, Germany: Secretariat of the United Nations Convention to Combat Desertification.

United Nations Convention to Combat Desertification (UNCCD), (2012). *Desertification: A Visual Synthesis.* Bonn, Germany: Secretariat of the United Nations Convention to Combat Desertification.

United Nations Convention to Combat Desertification (UNCCD) (2013). *The economics of desertification, land degradation and drought: Methodologies and analysis for decision- making.* Background document for the 2nd Scientific Conference of the UNCCD, 9-12 April 2013. Bonn, Germany: Secretariat of the United Nations Convention to Combat Desertification. Available from http://2sc.unccd.grforum.org/fileadmin/unccd/upload/documents/Background_documents/Bac kground_Document_web3.pdf. Accessed 22 Aug 2019.

United Nations Convention to Combat Desertification (UNCCD) (2014). *Land degradation neutrality: Resilience at local, national and regional levels.* Bonn, Germany: United Nations Convention to Combat Desertification. Available from http://catalogue.unccd.int/858_V2_UNCCD_BRO_.pdf. Accessed 22 Aug 2019.

United Nations Conference on Environment and Development (UNCED) (1992). Declaration of Rio on Environment and Development. In United Nations Environment Programme. *Rio Declaration on Environment and Development*. Available from http://www.unesco.org/education/pdf/RIO_E.PDF. Accessed 22 Aug 2019

United Nations Development Programme (UNDP) (2014, December 2). Matawalu Village plans village relocation to reduce risks for residents [Press release]. Retrieved from http://www.asia-pacific.undp.org/content/rbap/en/home/presscenter/pressreleases/2014/12/02/matawalu- village-plans-village-relocation-to-reduce-risks-for-residents-.html. Accessed 22 August 2019.

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2000). *Report and outcome documents of the Ministerial Conference on Environment and Development in Asia and the Pacific 2000.* Ministerial Conference on Environment and Development in Asia and the Pacific. Kitakyushu, Japan, August 31-September 5, 2000. Available from https://www.unescap.org/resources/report-and-outcome-documents- ministerial-conference-environment-and-development-asia-and. Accessed 22 August 2019.

United Nations Framework Convention on Climate Change (UNFCCC) (2005). *Climate change and Small Island Developing States*. Bonn, Germany: Secretariat of the United Nations Framework Convention on Climate Change. Retrieved from http://unfccc.int/resource/docs/publications/cc_sids.pdf. Accessed 22 August 2019.

United Nations Framework Convention on Climate Change (UNFCCC) (2012). *Slow-onset events: Technical paper*. Retrieved from http://unfccc.int/resource/docs/2012/tp/07.pdf. Accessed 22 August 2019.

United Nations General Assembly (UDHR) (1948). *Universal Declaration on Human Rights.*
http://ccnmtl.columbia.edu/projects/mmt/udhr/. Accessed 22 Aug 2019.

United Nations General Assembly (2014). *Draft outcome document of the Third International Conference on Small Island Developing States*. Available from http://www.sids2014.org/content/documents/358A-CONF-223-5%20ENGLISH.pdf. Accessed 22 Aug 2019.

United Nations Office for the Coordination of Humanitarian Affairs (OCHA) (2014, September 11). Fiji: Building resilience in the face of climate change. Retrieved from http://www.unocha.org/top-stories/all-stories/fiji-building-resilience-face-climate-change. Accessed 22 Aug 2019.

United Nations Office for Disaster Risk Reduction (UNISDR) (2015). *Sendai framework for disaster risk reduction 2015-2030*. Retrieved from http://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf. Accessed 22 August 2019.

United Nations Office of the High Commissioner for Human Rights (UNOHCHR) Pacific Regional Office (2011). *Protecting the human rights of Internally Displaced Persons in natural disasters: Challenges in the Pacific*. Discussion Paper. Suva: UNOHCHR.

United Nations Office of the High Commissioner for Refugees (UNHCR) (2007, November 2). *Summary record of the 616th meeting of the Executive Committee of the Programme of the United Nations High Commissioner for Refugees.* (A/AC.96/SR.616). Retrieved from http://www.unhcr.org/473c1c362.pdf. Accessed 22 Aug 2019.

United Nations Office of the High Commissioner for Refugees (UNHCR) (2008).

Climate change, human rights and forced human displacement: Case studies as indicators of durable solutions. Meeting Paper. Canberra, Australia, 10 December 2008. Available from http://www.displacementsolutions.org/files/documents/Climate_Change_Displaceme nt_Meeti ng_Paper.pdf. Accessed 22 Aug 2019.

United Nations Office of the High Commissioner for Refugees (UNHCR) Regional Office for Australia, New Zealand, Papua New Guinea and the Pacific (2010). Pacific islanders face the reality of climate change. *Refugee Newsletter*, No.1/2010.

United Nations Office of the High Commissioner for Refugees (UNHCR) (2014). *Planned relocations, disasters and climate change: Consolidating good practices and preparing for the future*. Background document to the San Remo Consultation, 12-14 March 2014. Geneva: United Nations High Commissioner for Refugees (UNHCR), Brookings-LSE Project on Internal Displacement & Georgetown University. Retrieved from http://www.unhcr.org/53c4d6f99.pdf. Accessed 22 Aug 2019.

United Nations Human Settlements Programme (UN-HABITAT) (2008). *Secure land rights for all*. Nairobi: UN-HABITAT. Retrieved from https://www.un.org/ruleoflaw/files/Secure_Land_Rights_BK.pdf. Accessed 22 Aug 2019.

United Nations Human Settlements Programme (UN-HABITAT) (2015). *Urbanization and climate change in Small Island Developing States*. Nairobi: UN-HABITAT. Available from https://sustainabledevelopment.un.org/content/documents/2169(UN-Habitat,%202015)%20SIDS_Urbanization.pdf. Accessed 22 Aug 2019.

United Nations News Center (2015, March 14). UN responding to 'devastating' impact of Tropical Cyclone Pam in Vanuatu, Pacific region. Retrieved from http://www.un.org/apps/news/story.asp?NewsID=50327#.VS1dXWY3M7A. Accessed 22 August 2019.

Vaai, Asiata. (1997) The Idea of Law: A Pacific Perspective. Journal of Pacific Studies 21: 225-245, http://www.usp.ac.fj/fileadmin/files/Institutes/jps/Vaai.PDF , Accessed 1 June 2019.

Van der Geest, K. (2010). Local perception of migration from North-West Ghana. *Africa*, 804(4), 595-619.

Von Doussa, J. (2008, June 13). Climate change and human rights. *Centre for Policy Development*. Retrieved from http://cpd.org.au/article/climate-change-and-human-rights. Accessed 22 Aug 2019.

Waide, S. (2014). 10 years after the eruption [Blog post]. Retrieved from http://www.pngblogs.com/2014/08/10-years-after-eruption.html. Accessed 22 August 2019.

Ward, G. (2000). Land tenure in the Pacific Islands: Changing patterns and implications for land acquisition. In Asian Development Bank [R. Manning (ed.)] *Resettlement policy and practice in Southeast Asia and the Pacific.* Manila: Asian Development Bank, pp.75-87.

Warner, K. (2010). Global environmental change and migration: Governance challenges. Global Environmental Change, 20(3), 402-413. http://doi.org/10.1016/j.gloenvcha.2009.12.001 , Accessed 22 August 2019.

Warner, K. (2012). Human migration and displacement in the context of adaptation to climate change: The Cancun Adaptation Framework and potential for future action. Environment and Planning C: Government and Policy, 30(6), 1061-1077. http://doi.org/10.1068/c1209 , Accessed 22 August 2019.

Warner, K., Afifi, T., Henry, K., Rawe, T., Smith, C., & Sherbinin, A. de. (2012). Where the rain falls: Climate change, food and livelihood security, and migration. An 8-country study to understand rainfall, food security and human mobility. Retrieved from http://ciesin.columbia.edu/documents/where-the-fallfalls.pdf , Accessed 22 August 2019.

Warner, K., Erhart, C., Sherbinin, A. de, & Adamo, S. (2009). In search of shelter: Mapping the effects of climate change on human migration and displacement. Retrieved from http://ciesin.columbia.edu/documents/clim-migr-report-june09_final.pdf, Accessed 22 August 2019.

Warner K., Afifi, T., Kälin, W., Leckie, S., Ferris, B., Martin, S. F. and D. Wrathall. (2013) Changing climates, moving people: Framing migration, displacement and planned relocation, Policy Brief No. 8. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). Retrieved from https://www.files.ethz.ch/isn/167240/Policybrief_8_web.pdf Accessed 22 Aug 2019.

Warner, K., Martin, S., Nassef, Y., Lee, S., Melde, S., Chapuisat, H. E., … Afifi, T. (2014). Integrating human mobility issues within National Adaptation Plans. UNU-EHS Publication Series, (9), 1-52.

Weir, T. & Virani, Z. (2010). *Three linked risks for development in the Pacific Islands: Climate change, natural disasters and conflict.* PACE-SD Occasional Paper No. 2010/3. Pacific Centre for Environment and Sustainable Development. Suva, Fiji: University of the South Pacific. Retrieved from http://www.spc.int/lrd/publications/doc_download/1499-three-linked-risks-for-development-in-the-pacific-islands-climate-change-natural-disasters-and-co. Accessed 22 Aug 2019.

West, C. T., Roncoli, C., & Ouattara, F. (2008). Local perceptions and regional climate trends on the Central Plateau of Burkina Faso. *Land Degradation and Development,* 19(3), 289-304.

Winch, P. (1964). Understanding a primitive society. *American Philosophical*

Quarterly, 1(4), 307-324.

Wallis, Joanne & Kent, Lia & Forsyth, Miranda & Dinnen, Sinclair & Bose, Srinjoy. (2018). Hybridity on the Ground in Peacebuilding and Development: Critical Conversations.

Worliczek, E. (2013), La vision de l'espace littoral sur l'île Wallis et l'atoll Rangiroa dans le contexte du changement climatique. Une analyse anthropologique de la perception des populations locales. PhD thesis. University of New Caledonia / University of Vienna

Worliczek, E. & Allenbach, M. (2011). Customary land tenure and the management of climate change and internal migration: The example of Wallis Island. *Land Tenure Journal,* 2(11), 131-156. Retrieved from http://www.fao.org/3/i2412t/i2412t.pdf. Accessed 22 Aug 2019.

Wouterse, F. & J. E. Taylor. (2008). Migration and income diversification: Evidence from Burkina Faso. *World Development,* 36 (4), 625-640.

Wyett, K. (2015). Escaping a rising tide: Sea level rise and migration in Kiribati. *Asia and the Pacific Policy Studies*, 1(1), 171-185.

Zahir, S., Sarker, R., & Al-Mahmud, Z. (2009). An interactive decision support system for implementing sustainable relocation strategies for adaptation to climate change: A multi- objective optimisation approach. *International Journal of Mathematics in Operational Research,* 1(3), 326-350.

Zickgraf, C., Vigil, S., De Longueville, F., Ozer, P., & Gemenne, F. (2016). *The impact of vulnerability and resilience to environmental changes on mobility patterns in West Africa.* Global Knowledge Partnership on Migration and Development (KNOMAD) Working Paper 14 (April 2016). Retrieved from https://www.knomad.org/sites/default/files/2017-04/KNOMAD%20WP%20The%20Impact%20of%20Vulnerability%20and%20Resilience%2 0to%20Environmental%20Change%20and%20Migration.pdf. Accessed 22 Aug 2019.

Zorn, Jean G and Jennifer Corrin Care (2002a), Proving Customary Law in the Common Law Courts of the South Pacific. London: British Institute of International and Comparative Law.

Zorn, J. G. (2003). Custom then and now: The changing Melanesian family. In A. Jowitt & T. Newton Cain (eds.) *Passage of change: Law society and governance in the Pacific*. Canberra: ANU Press, pp.95-124.

Endnotes

---

[1] The Cancun Adaptation Framework speaks of enhancing understanding, cooperation and coordination on displacement, migration and planned relocation. Similarly, first mentions under the loss and damage work programme and the WIM refer to enhancing understanding and expertise on human mobility in a broad sense. With the establishment of the task force on displacement, the focus and the language on what is to be achieved becomes somewhat more substantive with the task force mandate "to develop recommendations on integrated approaches to avert, minimize and address displacement". In Serdeczny, Olivia. (2017: 7). What Does It Mean to "Address Displacement" Under the UNFCCC? - An Analysis of the Negotiations Process and the Role of Research. 10.13140/RG.2.2.14308.78726.

[2] https://geoportal.landportal.org/?type=SPARQL&id=5dd3c6d515ba431f9d9dfdf0

[3] The report presents a transdisciplinary overview, consolidating the findings of the Foresight papers on climate change and migration, some of them included in this bibliography. Some of the more important findings are: (1) environmental change is probably more important as an indirect migration mechanism and, thus, (2) is difficult to isolate from other forms of migration; (3) the analysis supports the prominence of internal migration, (4) as well as the perils of immobility; (5) the study promotes migration as adaptation and also (6) more attention to cities. Foresight Project and Government Office for Science, G. B. (2011) Migration and global environmental change: Future challenges and opportunities, London: Government Office for Science.

[4] See also: Commoditisation of land, Common property resources Leonard, R., & Longbottom, J.M. (2000:23). Land tenure lexicon : a glossary of terms from English and French speaking West Africa.

[5] Therefore, in addressing local climate impacts, local governments and communities are key players. Advancing governance of climate change across all levels of government and relevant stakeholders is crucial to avoid policy gaps between local action plans and national/ sub-national policy frameworks (Corfee-Morlot et al. 2009Corfee-Morlot, J. et al., 2009: Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers N° 14, 2009, OECD publishing, Paris, France, pp. 1–125.).

[6] John Noel v Obed Toto involving land ownership and usage in Vanuatu, Chu Ling (John v Bank of Western Samoa (No. 1) on Indigenous security, and Fugui and Another v Solmac Construction Company Ltd and Others on compensation for wrongful deprivation of property in the Solomons. In regard to public order and private ordering, she deals with the Solomons case of R v Loumia and Others involving a customary duty to kill and with Italia Taamale and Taamale Toelau v the Attorney General of Western Samoa on a Land and Titles Court ordered banishment.

[7] Security, exclusivity and permanence features of CBFM legislation are briefly described as follows: "• Security is the ability for the holder of rights to withstand challenges to such rights. It involves: the nature of rights allocated, which cannot be alienated or changed unilaterally and unfairly; the enforceability of rights against the State, including local government institutions; the boundaries of the resources to which the rights apply; who is entitled to claim membership in a CBFM group; and recognition of the holder of the rights.• Exclusivity is the ability to hold and manage the right without unlawful interference, which can also occur through regulations, license conditions, gear, area and time restrictions etc; • Permanence is the time span of rights allocated. The term for holding the rights allocated could be perpetual but if the right is not held in perpetuity, the duration of rights should be clearly spelled out and is sufficient for the benefits of participation to be fully realized." (Kuemlangan 2004:5)