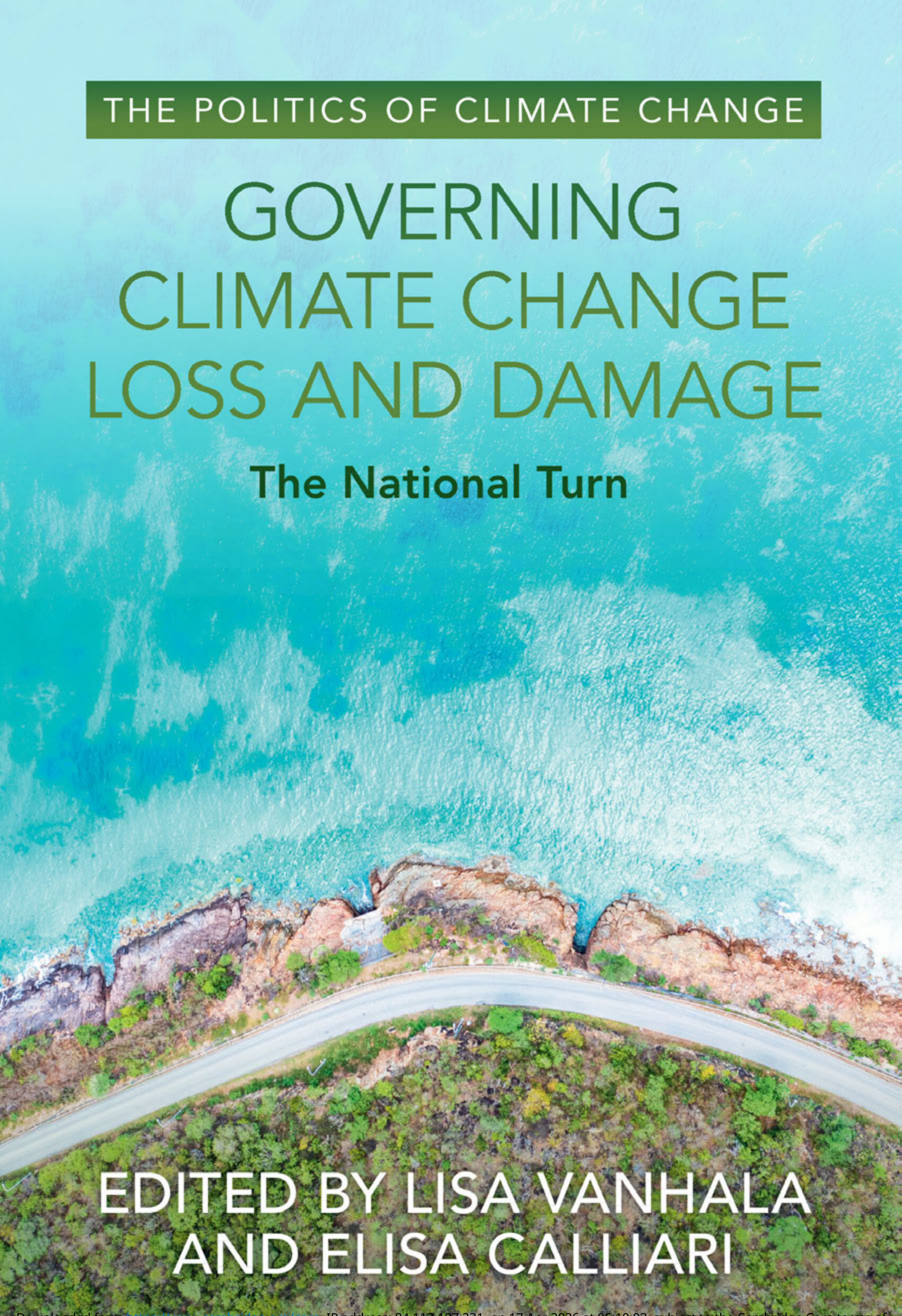

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The National Turn

Edited by

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Abbreviations

AGN	African Group of Negotiators on Climate Change [*Ethiopia*]
AILAC	Independent Association of Latin America and the Caribbean (Asociación Independiente de Latinoamérica y el Caribe)
AOSIS	Alliance of Small Island States
AR6	Sixth Assessment Report
BCCRF	Bangladesh Climate Change Resilience Fund [*Bangladesh*]
BCCSAP	Bangladesh Climate Change Strategy and Action Plan [*Bangladesh*]
BCCTF	Bangladesh Climate Change Trust Fund [*Bangladesh*]
BEST	The Bahamas Environment, Science and Technology Commission [*The Bahamas*]
BRAC	previously Bangladesh Rehabilitation Assistance Committee [*Bangladesh*]
CARICOM	Caribbean Community
ccGAP	Climate Change Gender Action Plan [*Bangladesh*]
CCP	Cyclone Protection Programme [*Bangladesh*]
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDEMA	Caribbean Disaster Emergency Management Agency [*Antigua and Barbuda, The Bahamas*]
CFF	Climate Fiscal Framework [*Bangladesh*]
COP	Conference of the Parties
CRGE	Climate-Resilient Green Economy [*Ethiopia*]
CSO	civil society organization
DCCD	Department of Climate Change and Disaster [*Tuvalu*]
DRM	disaster risk management
DRR	disaster risk reduction

EEZ	exclusive economic zone
EFCCC	Environment, Forest and Climate Change Commission [*Ethiopia*]
ENCC	National Strategy on Climate Change (Estrategia Nacional ante el Cambio Climático) [*Peru*]
ETTIC	Interministerial Technical Team for Climate Change (Equipo Técnico Interministerial para el Cambio Climàtico) [*Chile*]
FFA	Pacific Islands Forum Fisheries Agency [*Tuvalu*]
GCF	Green Climate Fund
GDP	gross domestic product
GGGI	Global Green Growth Initiative [*Ethiopia*]
GHG	greenhouse gas
GIZ	German International Cooperation Society (Deutsche Gesellschaft für Internationale Zusammenarbeit)
GLOFs	glacial lake outburst floods
GTPII	Second Growth and Transformation Plan [*Ethiopia*]
IDCOL	Infrastructure Development Company Limited [*Bangladesh*]
IO	international organization
IPCC	Intergovernmental Panel on Climate Change
ITLOS	International Tribunal for the Law of the Sea
LDC	least developed country
LMCC	Framework Law on Climate Change (Ley Marco sobre Cambio Climático) *[Peru]*
MCPP	Mujib Climate Prosperity Plan [*Bangladesh*]
MINAM	Ministry of Environment (Ministerio del Ambiente) [*Peru*]
MoDMR	Ministry of Disaster Management and Relief [*Bangladesh*]
MoEFCC	Ministry of Environment, Forest and Climate Change [*Bangladesh*]
MoF	Ministry of Finance [*Bangladesh*]
MoFED	Ministry of Finance and Economic Development [*Ethiopia*]
MoTAC	Ministry of Transport and Communication [*Ethiopia*]
NACCC	National Advisory Council on Climate Change [*Tuvalu*]
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NC_2	Second national communication under the UNFCCC
NC_3	Third national communication under the UNFCCC
NCCC	National Climate Change Committee [*The Bahamas*]
NDC	Nationally Determined Contribution
NELs	noneconomic losses
NEMA	National Emergency Management Agency [*The Bahamas*]
NGO	nongovernmental organization

NODS	National Office of Disaster Services [*Antigua and Barbuda*]
NPDM	National Plan for Disaster Management [*Bangladesh*]
ONEMI	Ministry of the Interior and Public Security (Oficina Nacional de Emergencias del Ministerio del Interior) [*Chile*]
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative [*Tuvalu*]
PICCIF	Pacific Islands Climate Change Insurance Facility [*Tuvalu*]
PIF	Pacific Islands Forum [*Tuvalu*]
PPK	Peruanos por el Kambio [*Peru*]
SFDRR	Sendai Framework for Disaster Risk Reduction
SIDS	Small Island Developing States
SNLD	Santiago Network on Loss and Damage
SOE	slow onset event
SPC	Pacific Community
SPM	Summary for Policymakers
SREX	*IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*
TISIP	Tuvalu Infrastructure Strategy and Investment Plan 2016–2025 [*Tuvalu*]
TKII	National Strategy for Sustainable Development 2005–2015 (Te Kakeega II) [*Tuvalu*]
TKIII	National Strategy for Sustainable Development 2016–2020 (Te Kakeega III) [*Tuvalu*]
TNC	The Nature Conservancy [*The Bahamas*]
TSF	Climate Change and Disaster Survival Fund [*Tuvalu*]
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
WIM	Warsaw International Mechanism for Loss and Damage
WIM ExCom	Executive Committee of the Warsaw International Mechanism for Loss and Damage
YOUNGO	Youth and children constituency of the UNFCCC

1

Introduction

Lisa Vanhala and Elisa Calliari

1.1 INTRODUCTION

The impacts of climate change are complex, manifold, and cascading. Scientific research has unequivocally demonstrated that changes in the climate have been driven by human activity – including industrialization, changing land use, and the movement of people around the planet. The warming caused by humans is already having visible effects. The earth is getting hotter, resulting in more frequent and/or intense extreme weather events, including heatwaves, hurricanes, and cyclones; rainfall patterns are changing, resulting in unprecedented flooding in some places and prolonged droughts in others; sea levels are rising; oceans are acidifying; glaciers and ice sheets are melting; and deserts are spreading.

These changes brought about by humans have a devastating impact not only on the natural world and its biodiversity but also on the quality of human life. They have effects on crop growth and marine ecosystems, leading to food insecurity; they push people to leave their homes and communities; and they cause devastating damage to infrastructure, including housing and transport. Climatic changes have also created less visible impacts: They shape the contours of human health, including mental health, and they threaten countless communities' cultural identities, heritage, and spiritual connection to their environment. The resources that countries devote to recovering from climate change losses and damages – rebuilding after extreme weather events and transforming the way they do things – mean that they have less money available to invest in education, health, and development more generally.

The 2022 Intergovernmental Panel on Climate Change (IPCC) Working Group II contribution to the Sixth Assessment Report (AR6), which assesses the impacts of climate change and reviews vulnerabilities, capacities, and limits

of natural and human systems to adapt, was referred to as an "atlas of human suffering" by UN Secretary-General António Guterres (United Nations 2022). The IPCC report suggests that between 3.3 billion and 3.6 billion people across West, Central, and East Africa, South Asia, Central and South America, Small Island Developing States (SIDS), and the Arctic are considered highly vulnerable to climate change. The report also makes clear that responding to climate change impacts will be increasingly difficult or even impossible as global warming progresses. The current rise in temperature of 1.1 degrees Celsius above pre-industrial levels has already caused losses and damages to both nature and people despite efforts to adapt. Near-term action limiting warming to 1.5 degrees Celsius would reduce future losses and damages but would not be able to eliminate them all. Every small increase in warming beyond 1.5 degrees Celsius will result in an increased risk of severe impacts, and some risks will be irreversible and existential.

The changing climate is an issue of global significance with far-reaching consequences for the life chances of populations around the world. We have long known that there are serious distributional impacts of climate change internationally: Poor countries will suffer, and are already suffering, the bulk of the damages (Mendelsohn et al. 2006). There have been moves within the international climate change regime to address these injustices. The United Nations Framework Convention on Climate Change (UNFCCC), established in 1992, and then the Kyoto Protocol placed responsibility for addressing climate change on the shoulders of the industrialized world. Developed states that have historically benefitted from processes of industrialization have contributed significantly to global stocks of greenhouse gases (GHGs). However, the Paris Agreement, adopted in 2015, recognizes that many developing countries are now becoming major contributors to climate change as well. China has become the largest contemporary single emitter of GHGs; Brazil, India, and Indonesia have also become significant emitters.

While the first decade of the UN climate regime was devoted almost entirely to discussions about the mitigation – or reduction – of GHG emissions, it became clear in the 2000s that efforts would not go far enough or quickly enough to prevent certain climate change-related consequences. Some countries began to push for another stream of work within the climate regime to address adaptation. Climate change adaptation refers to the alteration of behaviors, systems, and – in some cases – ways of life in order to protect humans, economies, and the environment from the impacts of climate change. Policy and scientific understanding of adaptation measures have advanced significantly over the last fifteen years. Yet in the early 2010s, it became apparent that there would be limits to adaptation, resulting in wide-ranging losses. The idea that there would be impacts of climate change that could not be either adapted to or prevented began to receive greater attention within the UNFCCC process.

Known as "Loss and Damage" within the UNFCCC, the topic has proven to be highly contentious.[1] In many ways, the loss and damage issue has become a crucible for the mistrust that has emerged between and within developed and developing countries within the UNFCCC, particularly since the failure to reach a broad-based agreement at the fifteenth Conference of the Parties (COP15) in Copenhagen in 2009. Despite the widely celebrated adoption of the Paris Agreement, the legacy of a persistent gridlock which increasingly characterized the Kyoto-to-Paris period, and which frequently led to lowest common denominator solutions, has echoes in the politics of loss and damage within the UNFCCC (Hale et al. 2013). For many years developed countries were reluctant to engage on loss and damage, particularly given its association among some stakeholders and audiences with the idea that compensation is an appropriate solution. Even with the establishment of bodies to address the loss and damage issue at the global level, including the Warsaw International Mechanism for Loss and Damage and its Executive Committee (WIM ExCom) and other bodies such as the Task Force on Displacement, the levels of ambition to meet the challenges of loss and damage from climate change were low and progress was slow. With the establishment of the Santiago Network on Loss and Damage (SNLD) in 2019 and the establishment of a Fund for Responding to Loss and Damage in 2023, this has shifted. There is now a pressing need for these institutions to understand how states frame loss and damage and what their needs are in order to effectively manage climate risks and address loss and damage.

It is important to take stock of the growing efforts at the local, national, and regional levels to address the threat that loss and damage poses. This book focuses on these national actors, decision-making processes, and outcomes, with international developments as a crucial backdrop. Together, the following chapters seek to understand the commonalities and the differences in the adoption of domestic policies and programs to address climate change loss and damage: What makes a certain country take a particular path of action? Each of the chapters employs a common theoretical framework that provides leverage in addressing this question but which also accommodates the complexity and diversity across our cases.

Our focus in this book is on the national level – a governance scale we see as critical in allowing human societies to effectively navigate the loss and damage that climate change is already causing. While most political scientists and legal

[1] There are different ways of spelling loss and damage across political and scientific loss and damage spaces (for a discussion, see Hartz 2023). For readability and consistency, this edited volume uses the most encompassing term, "loss and damage" in lower case, to refer to both political and scientific elements of the discourse, and it refrains from using the acronym "L&D" because many scholars use this to refer only to the political discussions on the topic within the UNFCCC (and sometimes beyond). It also occasionally refers to "losses and damages" as the observed manifestation of residual climate change impacts after mitigation and adaptation measures and as a literal translation of the Spanish term "*pérdidas y daños*."

scholars who have studied loss and damage have done so with a focus on international political dynamics and governance processes, we follow Harrison and Sundstrom (2010, p. 2) in noting that decisions about whether or not to enact international agreements and to adopt national policies are "in the end domestic political decisions, taking in the context of homegrown interests, national discourses, and domestic political institutions."

By focusing on loss and damage policymaking at the national level, we seek to contribute not only to the now vibrant literature on loss and damage but also to the emerging field of comparative climate change governance and policymaking. In 2011, Victor criticized the existing literature on climate governance for "black boxing" national policymaking processes. Yet over the last decade, we have seen the emergence of a vibrant set of scholarly debates about the role of domestic actors, processes, and institutions in shaping policy outcomes at the national level. Stokes (2016, p. 960) notes that while climate change is often seen as a global collective action problem, "it is also a distributional challenge with implications for domestic politics." Dubash (2021, p. 1) suggests that since the adoption of the Paris Agreement "climate politics has become at least as much about understanding dynamics *within* nations as it is understanding the interaction *between* nations" (emphasis in the original).

Recent work in political science has centered the role of domestic institutions, actors, and political contexts in analyses of climate mitigation-related policies. Scholars have advanced explanations for why some countries undertake serious national action to reduce GHG emissions while others do nothing or very little. When explaining policy adoption, development, and implementation, scholars have examined the effects of a wide variety of factors, including, for example, the effects of regime type (Chesler et al. 2023); electoral institutions and backlash to climate policies (Finnegan 2022; Stokes 2016); state capacity (Averchenkova et al. 2021; Meckling & Nahm 2018, 2022); the design of decision-making structures and institutions (Dubash 2021; Mildenberger 2020, 2021); dynamics between the state, business interests, and/or labor organizations (Finnegan 2022; Hochstetler & Kostka 2015; Mildenberger 2020); the spread of global anti-fossil fuel norms (Green 2018); the long temporal horizons of climate policymaking (Finnegan 2022); and the interplay between governance and climate change litigation (Setzer & Vanhala 2019). What ties much of this work together is its dominant focus on the policy and politics of decarbonization (for exceptions see Eriksen et al. 2015; Javeline 2014; Vanhala et al. 2021).

Our research surveys the key explanations for climate policy outcomes in the area of climate change mitigation and then turns attention to an empirically grounded study of loss and damage governance at the national level. We find that some countries have been more proactive in engaging with the loss and damage issue than others and some efforts have been more promising. By identifying where there has been engagement and successes, this book hopes to map existing policy practices and act as a blueprint for how to build on those

achievements. Yet in prioritizing an empirically driven approach we heed calls to modulate the development of ahistorical, one-size-fits-all accounts of "best practice" that fail to be attuned to country-specific contexts (Dubash 2021; Konisky 2023). By advancing our understanding of what works and what does not in specific places at certain times, we seek to indicate a route to more effective governance of climate change loss and damage that is widely applicable but also non-prescriptive.

1.2 WHAT IS CLIMATE CHANGE LOSS AND DAMAGE?

The term "climate change loss and damage" originated in the UN climate negotiations to refer broadly to the negative impacts of climate change that occur when there have been insufficient or unsuccessful efforts to prevent or adapt to planetary warming. Yet this simple definition masks the complexity and ambiguity around the issue of what loss and damage is, in political, material, technical, embodied, and affective forms. In this introductory chapter, we map the international landscape within which the concept of loss and damage emerged. Our focus for the remainder of the book, however, is squarely on the domestic politics of loss and damage.

Political contestation has to date prevented the adoption of an official definition of what "loss and damage" signifies under the UNFCCC and the Paris Agreement. However, a growing informal consensus has emerged around what the term means (and does not mean), with some of these understandings also being legally embedded into international law. Loss and damage is understood to result from climate change-associated extreme weather events, like heatwaves, storm surges, cyclones, and droughts, and slow onset events, including sea-level rise, desertification, and rising temperatures. A distinction is also made between two types of negative impacts that can materialize: economic losses (e.g., loss of infrastructure, agricultural productivity, or impacts on the tourism sector) and what have been coined "noneconomic losses" (NELs). NELs are losses of those things that are not commonly traded in markets but bear high relevance for those affected, for example, the loss of life, the loss of biodiversity, and the loss of cultural heritage.

In terms of approaches for responding to loss and damage, Article 8 of the Paris Agreement enshrines "the importance of averting, minimizing and addressing loss and damage and the role of sustainable development in reducing the risk of loss and damage." The article thus draws attention to three key sets of actions that need to be carried out to respond comprehensively to loss and damage: mitigation, to ensure impacts are avoided in the first place; adaptation, to minimize impacts once they materialize; and implementation of measures to address residual impacts. Paragraph 8(4) articulates a "non-exhaustive" list of areas for cooperation among Parties (those states that have signed up to the UNFCCC and Paris Agreement): early warning systems; emergency preparedness; slow onset events; events that may involve irreversible and permanent

loss and damage; comprehensive risk assessment and management; risk insurance facilities, climate risk pooling and other insurance solutions; NELs; and resilience of communities, livelihoods, and ecosystems. At the same time, the decision accompanying the Paris Agreement clarifies that Article 8 does not involve or provide a basis for any compensation claim and thus excludes compensatory measures from the suite of responses for dealing with unavoided or unavoidable loss and damage.

The ambiguity-by-design around what the problem is and how it can be tackled has prompted political research to interrogate the different meanings that stakeholders involved in the UNFCCC process – including states, academics, and practitioners – attach to loss and damage. For instance, Boyd et al. (2017) identified four distinct framings ranging from loss and damage: (a) essentially equivalent to adaptation; (b) a case for comprehensive risk management; (c) something beyond adaptation; and (d) an existential and irreversible threat. While these framings are not mutually exclusive, they each suggest a different response to loss and damage. The closer to (a), the more prevention is emphasized and the more existing institutions focusing on mitigation and adaptation are seen as adequate to deal with loss and damage. The closer to (d), the more emphasis is placed on international liability and compensation, irreversibility of *ex post* loss, and the necessity of new institutional arrangements separate from adaptation and mitigation.

Vanhala and Hestbaek (2016) have traced the use of two competing framings in UNFCCC negotiations over time – one calling for liability and compensation and the other emphasizing risk management and insurance – and how they were eventually replaced by the broader term "loss and damage." They show how the emergence of this overarching umbrella frame allowed parties to attach different meanings to loss and damage and ultimately facilitated the adoption of the WIM in 2013. However, the underlying conflict between the two original framings has not yet been resolved, a point also raised by Calliari (2016) in her discourse analysis of Parties' positions up to the adoption of the Paris Agreement.

In parallel – and increasingly in support of the negotiations – the scientific community has provided mounting evidence of climate change impacts and risks, including the way they are leading to irreversible and existential impacts on vulnerable communities across the globe (Mechler et al. 2020). The *IPCC Special Report on Global Warming of 1.5°C* crystallized emerging scientific consensus by assessing for the first time the evidence relating to loss and damage as residual risk (IPCC 2022b). It also introduced in its glossary a distinction between "Loss and Damage" to refer to the political debate under the UNFCCC following the establishment of the WIM in 2013 and "losses and damages" to indicate "harm from (observed) impacts and (projected) risks" (IPCC 2022a, p. 170) which "can be economic or noneconomic" (IPCC 2022a, p. 171).

The 2022 IPCC Working Group II contribution to AR6 represented a new and deeper level of engagement with the concept. For the first time, the

expression "losses and damages" made it into the Summary for Policymakers (SPM), which is the document that is negotiated line by line by governments to synthetize the most politically relevant conclusions of the report (Hartz 2023). The inclusion of language on "losses and damages" was not uncontroversial: The US delegation, for instance, sought to replace the term "losses and damages" with the term "impacts" (Farand & Galey 2022). The SPM importantly notes that climate change, through the interaction of hazards (i.e., physical events, such as a cyclone or rising sea levels), exposure (the fact that a receptor – an individual, a household, a community, an ecosystem, etc. – is located where the hazardous event takes place), and vulnerability (the characteristics of the receptor that makes it susceptible to harm), generates impacts and risks that can surpass limits to adaptation and result in losses and damages. It thus makes clear that adjusting to climate change and its effects is not always an option for human and natural systems and that losses and damages are already materializing and will do so increasingly in the future.

The concept of "limits to adaptation" is key to understanding loss and damage. The IPCC (2014, p. 907) defines "limits to adaptation" as those points at which "an actor's objectives (or system needs) cannot be secured from intolerable risks through adaptive actions." It further distinguishes between hard limits, where no adaptive actions are possible to avoid intolerable risks, and soft limits, where options might exist but are not available. The IPCC AR6 provides evidence of limits to adaptation being observed for terrestrial and aquatic species and ecosystems and for some human systems in SIDS and mountain regions. It indicates that as warming increases, limits will be reached in more systems, including coastal communities, and in regard to water security, agricultural production, and human health (Pörtner et al. 2022).

The IPCC also notes that barriers to accessing financial capital and the limited effectiveness or quality of institutions, governance, and policies are the most significant factors in human systems that constrain adaptation and thus drive higher levels of loss and damage. Loss and damage is not comprehensively addressed by current financial, governance, and institutional arrangements, particularly in vulnerable developing countries. A desire to advance understanding of how and why governance at the national level can be enhanced to better grapple with existing and forthcoming challenges related to climate change loss and damage is one of the core motivations underpinning this book.

1.3 A POLITICAL SCIENCE OF CLIMATE CHANGE LOSS AND DAMAGE AND THE "NATIONAL TURN"

While many of the questions about loss and damage are scientific in nature – where climate change risks are likely to materialize, for example, or their link to anthropogenic warming – there are also pressing questions of direct relevance to the discipline of political science. These include questions about political, social, and economic behavior; about the institutions that facilitate or act

as a barrier to desirable behaviors; and about the norms that shape these institutions. There are also questions around why some people, livelihoods, seas, territories, infrastructures, and ecosystems are protected whereas others are sacrificed or overlooked; why some responses to losses are seen as more urgent than others; and how we can account for variations in the amount, nature, and sources of finance and other resources to respond to loss and damage.

While scholars in geography, anthropology, economics, and the interdisciplinary environmental social sciences have begun to turn their attention to loss and damage, the field of political science has only recently started to engage with this novel area of climate research. Yet the discipline's various potential contributions are crucial to a fuller and more nuanced understanding of a complex issue. Questions about how best to address climate change loss and damage are fundamentally political: They imply distributional outcomes and derive from decision-making processes. Climate change policy in this area will shape what kinds of domestic resources, institutions, and identities are implicated in the ways in which climate hazards are anticipated, navigated, and recovered from (or not). Scholars have already noted that climate change adaptation – far from being a neutral, technical, and managerial process – is based on contestation of what counts as "adaptive" for different groups, implies differentiated outcomes in terms of vulnerability and adaptive capacity, and is shaped by social identity (Barnett et al. 2021; Eriksen et al. 2015; Javeline 2014). We suggest that these considerations – about distributive politics, institutions, and identities – are equally applicable in the loss and damage realm.

To date, the contributions of political scientists (and those in cognate fields) to the study of loss and damage governance have focused on philosophical foundations and on the international climate regime (McNamara & Jackson 2019). This makes sense given the importance of international cooperation in addressing the issue of climate change generally and the global justice dimensions raised by the issue of loss and damage specifically. Existing research has documented the reluctance of rich countries to include loss and damage within the UNFCCC and noted that their efforts to ensure governance in this area is as "thin" as possible, with emerging bodies having limited mandates and budgets (Vanhala 2023; Vanhala & Hestbaek 2016). Yet research on how domestic policymakers are navigating the politics of climate hazards, the limits to adaptation, and the resulting loss and damage is beginning to emerge. Research has already shown how ideas of loss and damage vary contextually and across scales of governance (Vanhala et al. 2021), yet the reasons for this variation and its consequences have only just begun to be explored. We contend that the relative lacuna of political science research on loss and damage politics, policymaking, and governance represents a barrier to understanding and explaining the varying responses to climate change loss and damage. Enhancing our understanding will play a pivotal role in supporting policymakers to develop and implement more effective and legitimate policies on loss and damage.

Our understanding of how individual countries are grappling with policymaking to address climate change-related loss and damage at the national level remains much less developed (but for exceptions see Calliari & Vanhala 2022; Thomas & Benjamin 2018a, 2018b, 2020; Vanhala et al. 2021; Wewerinke-Singh & Salili 2020). This book is part of a growing series of efforts that we have coined the "national turn" in research on loss and damage governance (Calliari & Vanhala 2022; Vanhala et al. 2021). This term is not meant to suggest a lesser role for international, regional, and local actors or for a turn of analytical attention away from the international level. Rather, it is a call for expanding our horizons in terms of engagement with loss and damage governance as a phenomenon.

There are at least two reasons to focus on what is happening at the national level. First, the very nature of the Paris Agreement has put the nation state at the heart of action on climate change. As numerous scholars have observed, the way in which the Paris Agreement was structured – through a bottom-up pledge and review approach of Nationally Determined Contributions (Keohane & Oppenheimer 2016) – has bolstered the role of national governments in undertaking climate action. This is also true in the area of loss and damage governance at the UN level. In recent years, there have been efforts to establish national-level loss and damage focal points – representatives that would bridge national efforts and global governance. The negotiations at COP28 in 2023 operationalized the SNLD, a new body which is intended to provide technical assistance to countries. The discussions at COP27 also established and COP28 operationalized new funding arrangements, including a fund, for climate change loss and damage for the first time within the regime. The ability of countries to engage with these bodies, processes, and sources of finance will require effective national institutions with sufficient relevant knowledge and capacity.

Second, as many impacts of climate change are faced by people and ecosystems at the local level, a more granular scale of analysis is needed to understand how policymakers are grappling with these issues "on the ground." Many of the effects of climate change are context specific, and the most immediate impacts are necessarily tackled locally, with costs borne by individual households, businesses, and local and national governments and often without support from international institutions. There are a growing number of calls for a "science of loss" that can support decision-makers to develop policies to address loss and damage in their particular context (Barnett et al. 2016). Tschakert et al. (2019, p. 58) describe what a "situated and socially engaged science of loss arising from climate change" might look like: "[It] takes people's lived experiences with risk and harm as its fundamental starting point. It foregrounds what losses occur, where and how, which of these losses matter most to people and why, and whether or not such losses are considered acceptable and potentially reversible." Tschakert et al. (2019) also helpfully identify the risks of epistemological injustices in research on loss and damage, noting

that some types of loss and damage can be more easily identified, measured, and potentially monetized while other important losses are often overlooked. Our objective with this book is to begin to articulate the pressure on national policymakers to deal with the loss and damage their country faces and the importance of the local context in understanding why policymaking succeeds or fails.

To address our overarching research question, the following case study chapters map the political, institutional, and ideational terrain within each country we explore. Our approach is self-consciously iterative and exploratory given the very nascent stages of this research agenda. First, we ascertain whether climate change loss and damage has been conceived of as a policy problem (explicitly or implicitly) in that country. If it has, we examine how policies or programs on climate change loss and damage have been put into place. If the country does not yet have loss and damage policies, we look at the dynamics behind efforts to develop them and why they failed, were abandoned, or failed to emerge in the first place. Second, we explain the differing outcomes of the policymaking process by looking at four factors: the country's climate risk profile; its international engagement; its national institutional dynamics; the role of different types of ideas, including science, norms, and identities. Throughout the book, the international politics of loss and damage acts as an important backdrop. For many countries, loss and damage has pertained mainly to the international climate negotiations and implementation activities. In all our case studies, we interrogate the direction and degree of ongoing engagement between international developments and national politics, policies, and programs. In this way, we develop a rich and complex picture of how national loss and damage policymaking shapes and is shaped by both international and domestic structures, dynamics, and ideas.

1.4 OUR CASES

This book delves into seven original empirical case studies to explain why and how some countries pursue the establishment of loss and damage policies and programs more proactively and explicitly than others. Our case study countries are in the Global South. We focus primarily on developing countries for two reasons. First, we think it is important to address the epistemic injustice that currently exists in our understanding of climate policy processes. We believe there is a need for a deeper understanding of how loss and damage is conceptualized, managed, and responded to (or not) by policymakers in the countries that are most severely impacted by climate change. For instance, the Caribbean islands are grappling with higher-intensity hurricanes, more frequent droughts, and hotter temperatures. Low-lying nations like Tuvalu and Bangladesh are faced with several impacts of sea-level rise, including saltwater intrusion, coastal erosion, flooding, and inundation. Changing rainfall patterns, soil erosion, and extensive dry periods are hitting landlocked Ethiopia's agricultural

sector hard, contributing to changing migration patterns and threatening food security. Glacial retreat and desertification are lived realities in Peru and Chile, together with extreme events like floods, landslides, heatwaves, and droughts. Our cases thus cover a broad range of climate hazards and span a diversity of countries, from low-lying territories to mountainous nations.

Second, we want our case selection to reflect the prominent role several developing country coalitions have played in advancing the loss and damage agenda within the international climate negotiations. The Alliance of Small Island States (AOSIS) has been central in advocating for loss and damage solutions since the very inception of the UNFCCC. In this book, we focus on three of its members from the Caribbean and the Pacific regions: Antigua and Barbuda, The Bahamas, and Tuvalu. Tackling loss and damage has also become a pressing issue for the least developed countries (LDCs), and we focus on three countries in this category across the African and the Asia-Pacific regions: Ethiopia, Bangladesh, and Tuvalu (which has both SIDS and LDC status). Finally, and building on the work by Calliari and Ryder (2023), we note an increasing interest and engagement with loss and damage by a wider group of developing countries located in particular in the Latin American region. We draw attention to the emerging role of the Independent Association of Latin America and the Caribbean (AILAC) in loss and damage negotiations and focus on two of its members: Peru and Chile.

The countries in this book also represent different levels of socioeconomic development and thus have varying levels of capacity to respond to climate change. Antigua and Barbuda and The Bahamas are SIDS, which the UN recognizes as a distinct group of developing countries for the unique social, economic, and environmental vulnerabilities they face given their small population size, remote geography, distance from international markets, and high reliance on natural resources (United Nations n.d.-a). Ethiopia and Bangladesh are part of the LDCs, a group of low-income countries that confront severe structural impediments to sustainable development, have low levels of human assets, and are highly vulnerable to economic and environmental shocks (United Nations n.d.-b). At the other end of the spectrum, Peru is an emerging economy, classified by the World Bank as an upper middle-income country, and Chile is a high-income economy (World Bank Group n.d.).

Studying loss and damage policymaking in SIDS represents to some extent an obvious choice. SIDS provide a "most likely case" for engagement with national loss and damage policymaking: They are particularly vulnerable to the impacts of climate change, have already faced significant loss and damage, and have been heavily engaged with global policy development on the issue. While SIDS have undoubtedly led the charge at the international level on loss and damage, LDCs soon became one of their strongest allies. Yet not all of them – and landlocked Ethiopia is an example – fit the classic mold of a country grappling with loss and damage, at least as historically framed around the impacts of sea-level rise and the threat of coastal erosion. This provides us with

an opportunity to investigate the factors that have underpinned the shift to greater emphasis on adaptation and loss and damage in recent years. Finally, although AILAC is a relative newcomer to the loss and damage scene, it has become increasingly vocal in climate negotiations around matters relating to the SNLD and to funding arrangements for loss and damage. As such, AILAC members like Peru and Chile can help us better understand whether the growing emphasis on loss and damage at the international level has infused national governance and to what extent.

1.5 OUR FINDINGS: KEY THEMES

Our cases show that climate policymaking has grown in important respects across the developing world. Yet they clearly demonstrate the diversity of levels of engagement and approaches when it comes to responding to climate change losses and damages. We also find that existing explanations for the take-up of climate policy cannot be straightforwardly applied to understand the variation in engagement. Here we briefly touch on several key findings and the ways in which they advance our understanding of climate policy more generally. A key contribution we put forward is that the realm of ideas – both scientific knowledge and expertise and normative values related to the sets of behaviors and activities that are deemed appropriate for particular identities – plays a significant role in shaping engagement with loss and damage policymaking.

1.5.1 Countries Facing the Most Severe and Existential Impacts from Climate Change Don't Always Prioritize National Policy Engagement on Loss and Damage

Our case studies reveal variation in the extent to which countries have engaged with the concept of climate change loss and damage. Antigua and Barbuda, Bangladesh, and Tuvalu are among the countries that have adopted specific policies or programs and/or included consideration of loss and damage in their framework legislation on climate change. The cases of Peru and Chile show how countries that have been less involved in advancing loss and damage in climate negotiations are starting to understand its relevance for national policy, although with diverging results. Chile included a reference to "losses and damages" in the new climate change framework law; Peru did not, but the issue featured prominently in a draft version of the law. At the other end of the spectrum, The Bahamas and Ethiopia have not yet developed policies and programs on loss and damage and have predominantly focused on mitigation policies. This variation is puzzling: Given that all these countries are already experiencing impacts of climate change, these impacts alone are not sufficient to drive the development of new policies on loss and damage.

While climate change impacts and risks do not necessarily drive policy adoption, they can have profound effects on the institutional landscapes at the

national level. After a series of devastating weather events, Tuvalu and The Bahamas have both set up new bodies: The Bahamas' Ministry of Disaster Preparedness, Management and Reconstruction, which was instituted after Hurricane Dorian in 2019, and Tuvalu's Climate Change and Disaster Survival Fund, which was set up after Cyclone Pam in 2015.

1.5.2 International Engagement Shapes National Level Action on Loss and Damage

We find that engagement by policymakers with international processes concerning not only loss and damage but also adaptation and disaster risk reduction has played an important role in shaping national policy action. At the micro-level, the participation of key individuals whose responsibilities traverse participation in international negotiations on loss and damage on the one hand and national level policy or programmatic activities on the other can help to account for the patterns of policy leadership we see at the national level. As we show in the cases of Tuvalu and Antigua and Barbuda, in SIDS civil servants play a bridging role across the international and national levels that help explain policy adoption and innovation. For instance, the role of negotiators from Antigua and Barbuda in discussions about climate finance led to the insertion of language on finance to address loss and damage in the country's Environmental Protection and Management Act. We also find that *which* international organization or regime a stakeholder has engaged with can very much shape their attitude to loss and damage policymaking. We identified divergent framings on the problem of climate change risk depending on whether policy stakeholders looked to the Sendai Framework or the UNFCCC as the key governing regime. At the domestic level, this can lead to divergent views about the most appropriate types of activities, interventions, monitoring tools, and knowledge that should be brought into play.

We also suggest that there can be a meso-level mechanism in operation whereby states that take on leadership roles, like a COP presidency, become upskilled in new issues at the delegation level. During Chile's presidency of COP25, loss and damage was a key topic in the international negotiations, and Chilean policymakers began to include it in their national policies. Since the presidency, Chile has continued to be involved with the issue, particularly in relation to the SNLD, which many AILAC members see as an opportunity for accessing technical assistance. On the other hand, Peru's COP20 presidency has not resulted in loss and damage becoming a national issue, perhaps because it was not high on the COP agenda during that particular year.

The role of negotiating coalitions within the UNFCCC may also shape involvement or nonengagement with the issue domestically. Our case studies of Peru and Chile show how perceptions of national self-identities as middle-income countries in the UNFCCC regime mean that negotiators and other stakeholders tend not to see loss and damage as an issue that was

particularly relevant to them. However, we find that AILAC's interest in loss and damage slightly changed since the establishment of the SNLD, as the latter is perceived to move the discussion away from compensation and liability claims and to provide an opportunity for countries to access technical assistance.

1.5.3 The Development Paradigms Pursued by Countries Can Affect the Extent to Which They Engage with Loss and Damage at the National Level

Our case studies find that the countries' economic paradigms – ideas about how the economy works or should work – help us to understand how they engage with the concept of loss and damage better than actual levels of development, as expressed by gross domestic product. For instance, in both the Peru and Chile case studies, stakeholders referred to their countries' extractivist economic models and neoliberal ideologies as key constraints for the uptake of bold climate-related policies, including those dealing with loss and damage. These views also aligned with the idea that loss and damage is not seen as important for either Peru or Chile as these are middle-income countries. This points to normative assumptions about these countries' relationship to climate change impacts but also to certain framings of the loss and damage issue at the international level, which is often seen as an issue of relevance mainly to SIDS and LDCs. Another example is Antigua and Barbuda as a "tourism economy," where efforts to have better scientific information about climate change-related hotspots in the country face the fact that tourism is the largest single economic sector and there are disincentives to highlighting climate risks to potential investors. These examples highlight how commitments to existing economic paradigms can be in tension with effective governance of loss and damage. On a slightly different note, the case of Ethiopia and its ambition to become a "green economy" front-runner help instead explain the greater emphasis given to mitigation rather than adaptation within its policies.

1.5.4 Existing Institutional Features at the National Level Constrain Loss and Damage Policy Development

While identifying some of the factors that enable the inclusion of loss and damage considerations in national policies, our research also identifies a range of institutional barriers to related policy action. Across our case studies, those working in the fields of sustainable development and disaster risk reduction pointed to the challenges of aligning work on loss and damage with existing institutional structures. They also spoke about the difficulty in communicating about this topic given there is no accepted definition of exactly what it entails.

Even terminological short-hand, terms like "mitigation," mean different things for disaster risk reduction practitioners on the one hand and those working on climate policy on the other.

Another challenge is the lack of capacity and knowledge needed to mainstream considerations of climate risks into existing policies and programs. Our research highlights how the origins of this lack of knowledge are complex. In the case of Antigua and Barbuda, one interviewee saw considerations of slow onset events as a "luxury" nonurgent problem, noting the country has pressing development needs. However, our research also identified innovative ways in which countries were navigating gaps in knowledge, for example, by relying on local knowledge and volunteer networks in the case of Antigua and Barbuda; by trying to think about how to align different sources of data about disaster risk and experiences of disaster in the case of Bangladesh; and by creating new governance bodies to address human mobility and climate change in Chile.

There are also a number of tensions between the framing of a particular problem and the objectives of different government departments and/or other stakeholders. For example, in Tuvalu, preparation for climate impacts at the national level is considered to be part of its work on adaptation, but at the international level the country advocates for understanding the problem as being "beyond adaptation." The case of Antigua and Barbuda also illustrates that different government ministries have different incentives for deepening their knowledge of the types of risks the country faces because of worsening climate impacts. While the country's environment ministry wants to invest in more evidence, there is some historical reluctance on the part of those in the finance ministry for fear of capital flight in a country that is heavily dependent on tourism infrastructure.

Our research also notes the imbalances in the relative powers of different ministries. In countries like Chile and Peru, the ministries for the environment are perceived as "weaker" compared to, say, the finance and mining ministries, often due to a relative lack of funding and the fact that the environment ministries tend to be established more recently. These dynamics create a broader context of constraints within which climate policy is formulated. There is also often a lack of coordination between ministries to deal with this multidisciplinary and multifaceted issue. For instance, in Chile we identified a preference to focus on the humanitarian side of loss and damage because other problems – such as agricultural loss and damage – lie outside the remit of the ministry designated to deal with the issue.

In terms of more macro-level sociological changes, we note that there was some evidence from interviews that one of the barriers concerns generational approaches to the problem of climate change. For example, in The Bahamas, generational change among civil servants was brought up as a mechanism accounting for growing awareness and more action on climate change generally and loss and damage more specifically.

1.5.5 Policymakers Are Calling for Greater Knowledge and More Data to Inform Climate Change Loss and Damage Policies

Research across the case studies affirms the existing literature's claim that we have much to learn about climate change-related losses in the Global South (Barnett et al. 2016; Tschakert et al. 2019), and the need for more knowledge, particularly in understanding loss and damage from slow onset events. Barriers include financial constraints and financial disincentives to gaining a better understanding of climate risks, limited institutional capacity, and physical barriers to information gathering. However, another commonality among the case studies is the resourcefulness of policymakers in drawing on local knowledge, which can act as a supplement when systematic data is not available. Tapping into this local knowledge can also serve as a form of two-way information between the public and government agents. We saw this across different departments, for example, in the case of Antigua and Barbuda where stakeholders in both disaster risk management and the fisheries department had close linkages to relevant stakeholders at the local level.

One notable absence in our findings was mentions of tools, guidance, and knowledge produced by the UNFCCC bodies working on loss and damage, including the WIM ExCom and its associated bodies such as the Task Force on Displacement. It may be too early for these to be penetrating at the national level or they may not be fit for purpose.

1.5.6 National Policymakers Reshape the Concept of Loss and Damage to Make It Consistent with Their National Realities

Finally, our research affirms that we should not, particularly in these still early stages of institutional and policy development, think about loss and damage as a fixed "negotiation object," which can be apprehended, recognized, adhered to, ignored, and/or rejected *in toto* by policymakers. We see an active role being played by national stakeholders in appropriating and reshaping the concept to make it consistent with national circumstances and priorities. An example is the way ideas around liability and compensation, which have been cornerstones in developing countries' framing of loss and damage in the UNFCCC, play out very differently at the national level. We find that the process of translating ideas and concepts from the international to the national level results in a reversal of liability from Global North governments to Global South governments, and this affects the way loss and damage is eventually integrated into the policy landscape. For instance, in Peru a key reason for scrapping references to loss and damage in the Framework Law on Climate Change proposal was that it could have created a dedicated loss and damage fund, thus placing responsibility on the national government. Similarly, the case of Antigua and Barbuda highlighted a tension between gathering better and more data to assist with loss and damage assessments and with predicting potential future loss and

damage on the one hand and the potential liability of national governments that might come with this information particularly when it is associated with investment decisions on the other.

Another example is the way the relationship between adaptation and loss and damage plays out differently at the international and national levels. Within UNFCCC negotiations, developing countries argue for a conceptual separation between the two by arguing that loss and damage is something "beyond adaptation." On the ground, this distinction does not seem to hold with policymakers in particularly vulnerable countries like Tuvalu, stressing that it would not be practical to distinguish between the two.

1.6 PLAN OF THE BOOK

To allow for sufficient depth and richness within each case study, we use an overarching theoretical framework that allows not only for a deep analysis of the focus country but also for cross-cutting and comparative insights to emerge. Using this framework, each chapter looks at potential drivers of policy innovation and adoption as well as barriers to policy development. These include: (a) the nature of climate risks and impacts in each jurisdiction; (b) the role of international influence on domestic politics; (c) the institutions operating within each country; and (d) the ideational landscape in the country, including the role of science and knowledge, identity politics, and normative principles.

Chapter 2 gives a detailed overview of our theoretical framework. The chapter argues that existing theory about climate policy adoption has been overly focused on mitigation policies and centered on countries in the Global North. The chapter suggests an alternative approach focused on the outcome of interest – loss and damage policy development – requires a deep contextual understanding of a state's climate policy engagement more generally, as well as a consideration of key factors such as the country's levels of engagement with relevant international organizations working in the realm of loss and damage, the national institutional context, and the availability of policy-relevant knowledge. The chapter explains the abductive methodological approach which moves between existing theoretical propositions and data gathered through an analysis of law and policy and more than seventy-five interviews with stakeholders. Finally, the chapter highlights the epistemic value of our approach, which has involved partnering with researchers in the Global South to co-develop, undertake, and write up the research.

The first three empirical chapters explore SIDS, beginning in Chapter 3 with the paradigmatic case of Tuvalu by Elisa Calliari. In Tuvalu, the concept of loss and damage was introduced in official documentation in 2012 and yet has not been explicitly distinguished from policies and programs on adaptation. This chapter demonstrates that managing loss and damage constitutes a complex governance system with competencies and responsibilities diffused

across different national actors and multiple governance scales. In Tuvalu the way loss and damage is being conceptualized by policymakers is closely tied to issues related to national sovereignty, a sense of place, human mobility, infrastructure investment, sovereignty, and the protection of the country's Exclusive Economic Zone. The chapter finds that from the perspective of national stakeholders loss and damage requires a response at the regional and international levels. It also shows how ideas matter when devising responses to loss and damage: Sovereignty is framed not only in its physical dimension (e.g., authority over a territory) but also in a more immaterial way (e.g., maritime boundaries can be identified irrespective of the impacts of climate change on shorelines).

In Chapter 4, Lisa Vanhala and Michai Robertson explore knowledge politics on the frontlines of loss and damage in their research on Antigua and Barbuda. Antigua and Barbuda is one of the few countries that have legislation that specifically refers to "climate change loss and damage." The country played a critical role in chairing AOSIS at COP27, which saw a major breakthrough in reaching agreement to establish a loss and damage fund. This chapter traces the role of international influences and national institutions in shaping loss and damage policies in Antigua and Barbuda and – drawing on research in science and technology studies – also sheds light on the role of knowledge and ideas in shaping levels of awareness of the impacts of climate change, and loss and damage, among policymakers. In doing so, the chapter reveals the knowledge politics that play out between different institutions and levels of governance in the country. It argues that there are conflicting incentives for deepening understanding of loss and damage in Antigua and Barbuda: Better understanding of future scenarios allows for better development planning but also highlights to large investors (often from the Global North) the scale and likelihood of climate risks which can then have the effect of raising fears about stranded assets and capital flight.

In Chapter 5, Lisa Vanhala, Adelle Thomas, and Latonya Williams examine climate change loss and damage politics in The Bahamas. The Bahamas was a world leader in terms of thinking about climate change impacts when it adopted a national policy on climate change adaptation back in 2005. This chapter shows that despite these pioneering efforts The Bahamas has subsequently focused on relatively conservative programs concerned with climate change mitigation rather than adaptation or loss and damage. In the late 2010s, the country experienced several storms, most notably Hurricane Dorian in 2019, which the authors suggest has had the effect of institutional disruption. The loss and damage associated with these weather events led to the establishment of the Ministry of Disaster Preparedness, Management and Reconstruction; the strengthening of the legal framework for environmental protection; and growing resonance among civil society organizations of the implications of climate change for

their humanitarian and nature preservation work. The chapter finds that growing awareness among the political elite and the absence or presence of political will to confront emergent loss and damage were seen as critical among key stakeholders.

The next two empirical chapters explore the politics of loss and damage policy in two LDCs. In Chapter 6, Lisa Vanhala, Selam Kidane Abebe, and Asaye Ketema explore several paradoxes in the history of Ethiopia's climate change policy development and locate the growing political awareness of the implications of climate change loss and damage. Often held up as a model of sustainable development despite its status as an LDC, Ethiopia has been known for its ambition to become a green economy leader. We argue that the trajectory and emphasis of global climate governance and commitment to a green economic development model shaped early domestic priorities in climate policy development. We also show that political awareness of loss and damage has increased as the government has navigated the consequences of climate change including droughts, floods, and landslides, and with the growing prominence of loss and damage within the UN. The chapter also finds that potential novel opportunities to draw on international sources of climate finance have been a driver of growing policy engagement. Finance is seen as critical for facilitating domestic climate change policy objectives, including building climate resilience, addressing displacement, and coping with losses across sectors including agriculture, transport, infrastructure, and economic development. We demonstrate that Ethiopia has played a role in highlighting the plight of landlocked countries in the face of loss and damage, thereby challenging a narrow international framing of loss and damage as an issue for SIDS.

In Chapter 7, Douwe van Schie, Md Fahad Hossain, and Nusrat Naushin look at a country, Bangladesh, that has extensive experience of climate-related disasters. Bangladesh has been a critical voice within the UNFCCC negotiations in highlighting the plight of the LDCs in the face of repeated and worsening climate disasters. Within this group of country case studies, Bangladesh is among the leaders in terms of incorporating considerations of loss and damage in policymaking across ministries. The case of Bangladesh highlights how the costs of climate change are currently borne by the national government, the private sector, and the affected households. Existing policies tend to focus on addressing economic losses and to overlook the significant NELs and climate-related internal displacement. Civil society organizations have played an important role in centering the loss and damage agenda and highlighting linkages between the domestic and international levels. They have also strongly advocated for developing a national compensation mechanism, but efforts on this have stalled in part because of differing views on whether the responsibility should lie at the national level. In contrast to the other case studies presented here, the chapter shows how Bangladesh has developed a relatively sophisticated collection of data on loss and damage as a result of its long

experience with and high vulnerability to climate-related events. However, this data is collected in a piecemeal way and held in a siloed fashion, which means it is less useful for discussions within the relevant international forums.

In the next two chapters, Elisa Calliari and Monserrat Madariaga Gómez de Cuenca turn to two Latin American countries: Peru and Chile. Peru's particular vulnerability to climate change is often stressed by the country within climate change negotiations. Yet it has not yet developed any explicit national policy on loss and damage. Chapter 8 identifies two key factors that contribute to Peru's limited engagement: identity and policymaking politics. With respect to identity, the chapter argues that loss and damage is perceived as being inconsistent with Peru's status as an upper middle-income country. National actors frame loss and damage as "money for the poor" and thus something concerning SIDS and LDCs. Engaging with the issue of compensation is also seen as potentially leading to liability claims and litigation against the government. The chapter also finds that Peru's extractivist development and economic model limits the discussion and uptake of bold climate-related policies. With respect to politics, loss and damage is seen as a highly contentious issue. There is no reference to loss and damage in the country's framework law because the proposal came from a minority left-wing party. The lack of support for loss and damage from civil society organizations further marginalized the topic during the policymaking process.

The cases of Peru and Chile together offer a paired comparison of emerging upper middle-income countries in Latin America. The study of Chile by Monserrat Madariaga Gómez de Cuenca in Chapter 9 tracks how the government has gone from a quiescent to a leadership role on loss and damage in the international negotiations after the country held the presidency of COP in 2019. This chapter shows the top-down way in which the topic has been brought into domestic politics and the ways in which, under certain conditions, international engagement can drive policymaking and, under other conditions, it can hinder the development of national responses. The chapter also reveals that the centralized institutional landscape and relative weakness of the Ministry of the Environment operates as a barrier to the development of more effective loss and damage governance. A key finding from this chapter is that the strong commitment to a development model prioritizing economic growth and extractivist industries leads to tensions within the processes that emphasize the negative impacts of climate change.

Chapter 10, the concluding chapter, draws together the insights from across the empirical case studies showcasing the diversity of outcomes on national policy action on loss and damage. The chapter identifies patterns across the case studies in terms of how policymakers and other stakeholders are approaching policy development, adoption, and innovation. The chapter finds that while all the countries in the study are experiencing climate-related impacts it is Antigua and Barbuda, Tuvalu, and Bangladesh that have moved the furthest in terms of policy development and innovation (though all face constraints and barriers as well). The chapter suggests that Ethiopia and The Bahamas have been slower

to engage with the issue at the national level. The cases of the Latin American emerging economies, Peru and Chile, show the trajectory of two countries that have been relatively quiet on the issue at the international level but where policymakers have begun to understand the relevance of loss and damage for national policymaking.

This chapter identifies key cross-cutting findings including: a relative lack of attention to slow onset events in policy attention; an individual-level mechanism whereby civil servants from developing countries who are involved in loss and damage politics at the international level play a shuttling role by bringing knowledge, norms, and policy innovations between the UNFCCC and the national level; the centrality of financial incentives from international funds in focusing policy attention and driving policy development and a key role for ideational politics, including knowledge politics and ideological commitments to certain understandings of the "appropriate" national identity in relation to the concept of loss and damage and to development paradigms in accounting for policy engagement. The final section outlines a future research agenda on the "national turn" in the study of loss and damage governance.

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2

Theory and Methods

Lisa Vanhala and Elisa Calliari

2.1 INTRODUCTION

For most of the history of climate change policy, the focus of action has largely been to limit greenhouse gas (GHG) emissions. Given that industrialized countries have contributed the most historically and in per capita terms to the warming of the planet, policy has therefore been largely focused on the developed world. However, we have seen a remarkable shift over the last decade, with developing countries rapidly adopting and implementing new climate policies of their own. This is due in part to the unilateral commitments to mitigate emission in a number of developing states – those that were not required to make emissions reductions under the Kyoto Protocol. This is also due to the nature of the Paris Agreement, adopted in 2015, which overturned the dichotomy between developed and developing states in terms of responsibility for cutting emissions. There have been numerous analyses exploring these dynamics (e.g., Dubash 2021; Held et al. 2013; Hochstetler 2021; Hochstetler & Viola 2012). We complement these explanations and suggest that the growing number of climate policies in the Global South has also been driven by the increasingly destructive and unignorable ways that climate change is impacting these countries' economies, infrastructure, community cohesion, and food security.

This chapter surveys the existing theoretical landscape and presents our approach as we begin to explain how and why countries respond (or fail to respond) to climate change loss and damage. We derive a broad-based analytical framework that incorporates considerations of: (a) a state's vulnerability to climate change impacts; (b) international engagement on the issue; (c) national institutional factors; and (d) the role of ideas, including knowledge and norms. Rather than treating "national interests" as a given or fixed object, we take an approach which centers on understanding where and how policymakers apprehend different ideas of what climate change loss and damage is and how

and why it matters in their jurisdiction. We interrogate these countries' conceptualizations of some of the opportunities and barriers associated with loss and damage policymaking. We also highlight some of the distinctive features and challenges of developing loss and damage policy at the national level. In doing so, this framing chapter contributes to more general debates about what the drivers and barriers to climate change policy development are while also noting the contextual nature of loss and damage policymaking. We then outline the methodological approach of our study before the book turns to the individual cases.

2.2 CLIMATE CHANGE LOSS AND DAMAGE POLICY ADOPTION: THEORETICAL FOUNDATIONS AND EXPECTATIONS

This chapter – and indeed this entire collection – draws on the wide-ranging and now well-established literature on climate change policy adoption. The lion's share of scholarly attention has been focused on climate change mitigation policy efforts and has sought to identify the drivers of climate action and inaction in terms of abatement (e.g., Aklin & Mildenberger 2020; Drews & van den Bergh 2016; Dubash 2021; Gaikwad et al. 2022; Held et al. 2013; Harrison & Sundstrom 2010; Meckling et al. 2022; Mildenberger 2020; Nascimento et al. 2022). There has also been some comparative work on the adoption of adaptation policies (Adger et al. 2006). Together this research has developed and tested explanations focused on different units of analysis, from the individual (including voters, civil servants, experts, and politicians, e.g., Drews & van den Bergh 2016; Harrison & Sundstrom 2010; Stokes 2016; Valin & Huitema 2023) to the institutional (Finnegan 2022; Harrison & Sundstrom 2010; Held et al. 2013). It has examined units of analysis at different scales of governance, including not only the global but also the local/sub-state level (Huitema et al. 2016; Stokes 2016), the national level (e.g., Dubash 2021; Harrison & Sundstrom 2010; Held et al. 2013; Hochstetler 2021; Hochstetler & Viola 2012), and the regional level (e.g., Massey et al. 2014). It has also examined different forms and effects of political systems and institutions, with a particular focus on the distinctions between autocracies and democracies (Chesler et al. 2023; Harrison & Sundstrom 2010; Held et al. 2013), between corporatist and pluralist systems (Meckling et al. 2022; Mildenberger 2020), and between proportional representation and majoritarian electoral systems (Finnegan 2022). Finally, explanations have also been tied to varying levels of economic development (Held et al. 2013; Massey et al. 2014) and to state capacity (Meckling & Nahm 2018, 2022).

In their path-breaking study, which systematically compares domestic politics of climate change, Harrison and Sundstrom (2010) argue that decisions about whether to ratify international agreements and to adopt national policies to mitigate climate change are fundamentally domestic political decisions.

TABLE 2.1 *Overview of potentially relevant factors in loss and damage policymaking*

Potential drivers of/ barriers to loss and damage policymaking	Factors
Climate risks and impacts	Risk profile and experience of climate-related impacts
International engagement	Activity within international organizations
	Financial incentives from international/regional funds
	Policy diffusion
Institutional context	Prioritization among relevant government stakeholders
	Institutional capacity
	Pressure from civil society and/or business actors
Ideational context	Availability of scientific research and other forms of knowledge
	Normative landscape
	Relevant identities

They point out that "when international meetings conclude, actors return to their domestic constituents" (Harrison & Sundstrom 2010, p. 2). Their detailed and structured approach was invaluable in establishing the foundations for today's comparative political economy of climate change literature. We follow in their footsteps to make a similar case for the relationship between international and national-level loss and damage politics and governance. We reverse the lens of previous scholarship on loss and damage by foregrounding domestic politics and treating international influence as one of a series of critical factors in accounting for the centrality of loss and damage within domestic policymaking.

In some ways, loss and damage governance, at least in the way it is conceived at the international level, is a comparatively new area of climate change policymaking. In other ways, as the research presented here shows, the types of interventions that we are beginning to think of as loss and damage-related have long been practiced in some contexts but are more likely to have been labelled as practices of disaster risk reduction, sustainable development, or climate change adaptation. Table 2.1 presents the range of potentially relevant factors in explaining policy adoption in the case of loss and damage. Section 2.3 discusses how these theoretical arguments apply in this specific area of climate governance.

2.3 CLIMATE CHANGE RISKS AND IMPACTS

For those working from a climate risk perspective, climate impacts are the materialization of climate risk. According to this formulation, risk results from the interaction between three factors: a hazard, exposure, and vulnerability.

This is represented through the simple on paper (and complex in reality) equation of climate risk = hazard × exposure × vulnerability. The emphasis in this understanding is that climate risk is the product of both planetary warming and the material and social construction of our societies.

For many years, the literature on climate change policy adoption failed to consider how climate change-related events – such as severe floods, heatwaves, and damaging storms, as well as slow onset events, such as sea-level rise – influenced the adoption of climate change policy. This changed in the early 2010s, when scholars began to incorporate climate pressures into their analyses, suggesting that those who are vulnerable to climate change risks may be more likely to demand government action and change their personal behavior (see, e.g., Gaikwad et al. 2022; Kim & Wolinsky-Nahmias 2014; Massey et al. 2014). The *Intergovernmental Panel on Climate Change (IPCC) Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (known as *SREX*) even framed these pressures as a primary driver in the adoption of climate change adaptation policies (Field et al. 2012).

Since then, studies have increasingly incorporated measures of vulnerability to climate change in explaining variation in public opinion and in policy action. Political science research has examined the vulnerability of communities and political groups to both costly climate policy (e.g., by considering the impacts of mitigation efforts on coal communities) and the vulnerability of communities to the physical impacts of climate change (Gaikwad et al. 2022). Studies on how physical vulnerability to climate change shapes political behavior have predominantly focused on the US and the EU (Massey et al. 2014; Soni & Mistur 2022; Zahran et al. 2008) but recent research is also incorporating evidence from developing countries. This has helped to strengthen our understanding of how vulnerability shapes distributional politics and compensatory mechanisms (Gaikwad et al. 2022), as well as how climate vulnerability shapes the bargaining power of weak states in the international negotiations (Genovese 2020), the allocation of aid for adaptation (Betzold & Weiler 2017), and the revaluation of assets (Colgan et al. 2021).

There is also a growing body of research that investigates the role that "natural" and/or climate disasters, as a form of exogenous shock, have played in shaping public opinion. For example, a recent study examining the US from 1980 to 2018 found that the frequency of disasters significantly drives public support for environmental spending and that different types of disasters have heterogeneous impacts, with wildfires and severe winter weather events being the most impactful (Soni & Mistur 2022). Yet research on the linkages between climate change impacts and public opinion, political behavior, and policy adoption in advanced capitalist democracies is inconclusive (Bergquist & Warshaw 2019; Demski et al. 2017; Egan & Mullin 2012; Howe et al. 2019; Lujala & Lein 2020). Furthermore, there has been almost no research on the distinction between extreme weather events and slower moving environmental changes driven by climate change (but see Lujala & Lein 2020).

Another gap in the literature concerns the ways in which political leaders and policymakers specifically are influenced by experiences of climate change impacts. Focusing on Latin American countries, a comparative study by Edwards and Roberts (2015) found that concern for climate change impacts has led some political leaders and citizens to take action both nationally and in UN climate negotiations. Critical research in geography and disaster risk studies, which tends to offer a wider understanding of the influence of disasters and the ways in which disaster politics unfold, also points to the importance of governance (Pelling & Dill 2010; Weichselgartner & Kelman 2015). For example, Kelman suggests that the majority of "natural" disasters are created or exacerbated by human choices and that by considering the social, political, and economic dimensions of the causes and implications of disasters, political leaders can improve decision-making around natural hazards (Kelman 2022).

This set of existing theoretical propositions and scientific advances in understandings of climate risks and their materialization, in particular presented in the IPCC's Sixth Assessment Report, suggests that the risks and impacts of extreme weather events and slow onset hazards can shape the landscape for climate change policymaking, with countries becoming motivated to act. In this book, we seek to explore how a country's risk profile and experience of climate change-related impacts shape the context within which policy stakeholders understand, formulate, and/or adopt (or fail to adopt) nationally appropriate policy responses to loss and damage. We query whether heterogeneous types of impacts mobilize different types of institutions, actors, and resources. While our research design does not allow us to make claims about causality or even identify correlations between disasters and policy development across contexts, our approach takes note of the ways in which the material realities of these types of disasters are inseparable from the ways in which loss and damage comes to be identified and understood by stakeholders. We suggest that the common, intersubjective acknowledgment of loss and damage among key stakeholders might enable an articulation of these physical impacts and material realities as a policy problem – it is only then that the problem can be addressed.

2.4 INTERNATIONAL ENGAGEMENT

Existing theoretical accounts of climate policy adoption look to international organizations (IOs) as key drivers in shaping the context within which national policymakers consider taking action. As discussed in Chapter 1, the concept of loss and damage is in many ways a product of the United Nations Framework Convention on Climate Change (UNFCCC) regime and was embedded in 2013 in the UNFCCC itself and in 2015 with a separate article in the Paris Agreement. Rather than understanding influence as only working in a top-down manner, we find that policymakers at the national level are not only looking to international developments in their policy engagement but are also seeking to shape understandings of the concept at the international level.

2.4.1 Engagement with IOs

Previous research on climate policy adoption has treated the role of international engagement as a driver of climate policy uptake in different ways (Schipper 2006). For example, in examining efforts to ratify the Kyoto Protocol at the domestic level, Harrison and Sundstrom (2010, p. 4) note: "It goes without saying that ratification of the Kyoto Protocol would not be on the domestic political agenda if it were not for prior international negotiations"; yet the authors treat the international context as a background factor exogeneous to domestic efforts to advance climate action. This makes sense given that in the early stages of the development of the international climate regime there was a clearer temporal distinction between efforts at the international and national levels. Since the adoption of the Paris Agreement in 2015, the paradigm for action has shifted from top-down targets for a subset of developed countries to bottom-up national commitments for all countries, referred to as Nationally Determined Contributions (NDCs), with a collectively agreed goal of limiting warming to well below two degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. The bottom-up nature of global climate governance is also shaping the landscape for action on adaptation. The National Adaptation Plan (NAP) process was established under the Cancun Adaptation Framework. It enables parties to formulate and implement NAPs as a means of identifying medium- and long-term adaptation needs and promotes the development and implementation of strategies and programs to address those needs. Massey et al. (2014) see efforts by IOs, such as the UNFCCC, as an external driver of climate adaptation policy adoption.

Similar trends are emerging in relation to loss and damage, with developing countries calling for loss and damage needs assessments in the UNFCCC negotiations. Recent research has traced how mentions of loss and damage are increasing in the NDCs and highlights the diverse ways in which countries understand this concept at the national level (Calliari & Ryder 2023). Calliari and Ryder (2023) find that countries are not simply adopting the framing of loss and damage elaborated by the UNFCCC but are instead actively shaping the concept by advancing certain understandings that are consistent with the challenges experienced in their national context. They outline an emergent two-level ideational game, whereby countries attempt to shape the global agenda by advancing certain framings of the loss and damage problem and solution space. This work complements their approach through the shift to the national level and the exploration of some key case studies in more detail to understand the diversity of conceptualizations of this policy problem both within and across countries.

2.4.2 Financial Incentives from International Funds

Previous research on the uptake of climate policy has suggested that when the push from IOs to stimulate policy action is accompanied by financial incentives

there is a greater likelihood of domestic political action. Some research has also noted that countries that are more exposed to climate change risks receive more adaptation aid, both on a per capital and as a percentage of all adaptation aid (Betzold & Weiler 2017), but this is an open question, with recent work querying whether funding reaches the most vulnerable (Garschagen & Doshi 2022). Financial support from international grants or funds could serve as a key driver of loss and damage policy adoption. At the twenty-seventh Conference of the Parties (COP27) in Sharm el-Sheikh in November 2022, there was an agreement to establish new funding arrangements for loss and damage, including a fund, which marked a historical moment in the history of the UN climate regime. Over the course of 2023, a Transitional Committee met to shape the contours of this new fund and agreed to negotiate with the World Bank to host the fund for an interim period of four years. This agreement was affirmed on the first day of COP29 in November 2023, and countries including Italy, Germany, the UK, the US, and the UAE all pledged finance for the capitalization of the new fund.

Although this is in many ways a huge step forward in addressing loss and damage, many of the critical details still need to be resolved by the board of the new fund before this capital materializes, including questions around how potential recipients will be identified and how they will access their funding. Certainly in the past there has been a lengthy lag time between institutionalization and implementation for UNFCCC initiatives. For example, while the decision to establish the Green Climate Fund was taken in 2010, the fund became fully operational only in 2015 (Schalatek 2023). As such, we would not expect top-down financial incentives to be a primary driver of domestic loss and damage policymaking at this stage. However, our methodological approach is alive to questions about how national-level policymakers may be responsive to opportunities for attracting additional finance and how this can affect policy development, implementation, or even rejection.

2.4.3 Policy Diffusion

Policy diffusion is a form of interdependent policymaking among jurisdictions at the same or across different levels of governance (Kammerer & Namhata 2018; Paterson et al. 2014; Schoenefeld et al. 2022). The study of diffusion of adaptation policy is still in its early stages, and this book represents a first effort to understand whether and how diffusion processes may play a role in specific jurisdictions in the governance of loss and damage (Schoenefeld et al. 2022). Policy scholars have identified different mechanisms for diffusion, including those related to learning, competition, coercion, and emulation (Shipan & Volden 2008) as well as typologies of pathways of policy diffusion (Blatter et al. 2022). Previous research into national climate governance has tended to separate international factors, treating them as either prerequisites or external to national-level policymaking. We argue instead that diffusion is

an integral factor when studying the early stages of loss and damage policy adoption.

Our approach recognizes that the policy process is composed of different stages, starting with the definition of an issue, that only later culminates – but not always – with the adoption of a policy. In this book, we join recent scholarship stressing the benefit of focusing on policymaking stages prior to adoption (Gilardi et al. 2021). As outlined in Chapter 1, loss and damage as a policy domain was first brought into climate negotiations by the Alliance of Small Island States in the early 1990s, but it was two decades before it was institutionalized in the UNFCCC and even later that it was embedded in international climate law in the Paris Agreement. A key enabler for its institutionalization was the decision by Parties to avoid discussions around a stringent definition of loss and damage, whose distinction from adaptation still remains unclear (Calliari 2016; Vanhala & Hestbaek 2016). This book points to the centrality of issue definition in the diffusion process and the way diffusion plays a key role in issues of definition. Loss and damage might prove a difficult concept to neatly translate from the international to the national level through processes, for instance, of learning or emulation, and even to reject *tout court*. Our analysis is open to understanding how policy frames elaborated in the UNFCCC context might affect the way the issue is understood and discussed at the national level, including which elements of the frame are embraced and which are rejected, and whether this results in policy adoption.

2.5 INSTITUTIONAL CONTEXT

Comparative political economy literature on climate change highlights how a range of domestic political institutions influence climate policy outcomes. Rather than an exclusive emphasis on policy adoption and outcomes, there has been a shift of focus onto the proliferation and consequences of climate institutions. Recent studies on climate policy adoption have examined both the emergence of new institutions and the layering of climate change-related objectives on to existing institutions (Dubash 2021; Mildenberger 2021). This section briefly introduces some of the key insights and debates that have emerged in the literature on the political economy of climate change mitigation. We see some of these dimensions as less relevant in accounting for the emergence of loss and damage policies, given the nascent stage of policymaking on this issue. Specifically, we suggest that actors' calculi of the distributive politics of loss and damage have not yet crystalized for either those actors themselves or for scholars of loss and damage governance. The full breadth of potential "winners" and "losers" of climate change loss and damage policies are not yet apparent and the complexity of time horizons and short- and long-term interests of both potential allies and opponents have yet to receive scholarly attention. We make a modest contribution on this front by beginning to outline some of the potential institutions and dynamics that may be at play. In our

empirical work, we were led by the policymakers and other stakeholders we interviewed and sought to cognitively inhabit their contemporary policymaking landscapes. As such, we develop a portrait of in situ loss and damage policy processes and only discuss the institutions that those involved in our research discussed or identified.

2.5.1 Political Regime Type, Electoral Systems, and Interest Mediation

There are open debates in the literature on the ways in which institutions shape the likelihood of countries adopting effective climate change mitigation policies. For example, there continue to be disagreements over how a country's particular political regime shapes the likelihood of their adoption of effective climate policies. Democratic regimes have long been assumed to facilitate the collective action needed to address problems like climate change. Scholars have argued that electoral accountability means that governments will enact policies that result in lower GHG emissions than their authoritarian counterparts; that democracies are more likely to cooperate in international environmental treaties; that free speech and freedom of the press help to enhance the quality of information about climate change in society; that a robust civil society plays an important role in mobilizing on the issue; and that respect for human rights and the rule of law allow individuals to access justice when environmental rights are violated (Bättig & Bernauer 2009; Clulow 2019; Finnegan 2022; Fiorino 2018; Li & Reuveny 2006; von Stein 2022).

Recent research is, however, challenging the assumptions underpinning the theory that democracies are more likely to implement climate policy. For example, Mildenberger (2020) shows how institutions that promote collective action also facilitate the accommodation of those who lose out from the adoption of climate policies in distributional terms. He shows how the institutionalized inclusion of carbon-dependent actors in policymaking processes can reinforce the privileged influence of these economic interests. New methodological approaches and measures of the relationship between regime type and levels of GHG emissions also suggest that regime type may not be as critical as once thought. For example, recent research finds no evidence that regime type matters on emissions of CO_2, CH_4, and N_2O, the three most critical GHGs driving global warming, suggesting that research on the politics of emissions should focus on factors other than regime type (Chesler et al. 2023). Povitkina (2018) finds that the benefits of democracy for climate change mitigation are limited in the presence of widespread corruption that reduces the capacity of democratic governments to achieve their climate targets.

Another dimension deemed important in recent work on the political economy of climate change concerns the nature of the electoral system. For example, proportional representation (PR) electoral systems – where seats allocated in a legislature are proportional to vote shares – can be useful in

insulating political leaders from electoral backlash when adopting costly climate policies as compared to systems with majoritarian rules (Finnegan 2022; Meckling et al. 2022). PR rules tend to dampen electoral competition and, through the generation of coalition governments, tend to obscure responsibility for policymaking outcomes, which in turn makes it more difficult for voters to punish politicians that push through policies that may have high short-term costs (Finnegan 2022).

Scholars have also argued that the systems for the mediation of political interests, including business, civil society organizations (CSOs), and social movements, can shape a government's ability to overcome opposition to climate policy. Finnegan (2022) finds that corporatist systems that grant routinized, privileged policymaking access to associations representing business and labor interests positively facilitate bargaining between the government and powerful economic actors over compensation. This interest group intermediation can, Finnegan suggests, not only protect vulnerable actors who may lose out as a result of policy change but also be useful for governments seeking to overcome opposition to climate policy from affected industries. Meckling et al. (2022) argue that countries with corporatist systems can establish long-term compensatory arrangements that ease the burden of energy transitions for those most affected. By contrast, in pluralist political systems, interests compete for influence, making it harder for the government to act in concertation with business and labor interests.

Yet this pro-corporatist account has been disputed. Mildenberger (2020) shows how climate policy preferences transcend the traditional left–right cleavages with both labor and business interests and allows for the "double representation" of opponents to decarbonization in the policymaking process. He argues that this is the most important feature of climate policy conflict, complicating the assumptions that democracy and corporatism will result in better climate policy outcomes. Mildenberger (2020) suggests that corporatist carbon polluters enjoy more consistent access to government policymakers over time and that in pluralist systems the influence of these types of actors is more variable.

2.5.2 Institutional Capacity

The literature on climate change adaptation policies suggests that institutions play an essential role in shaping the capacity of societies to cope with, adjust to, and prepare for global changes, including climate change. Acting both as limiting and as enabling factors, institutions determine not only the way societies will be affected by short- and long-term impacts but also their ability to respond to different stimuli, by mobilizing both material and immaterial resources. As such, institutions have long been acknowledged as crucial determinants of adaptive capacity (Engle 2011; Smit & Pilifosova 2001).

Recent research on climate policy regarding the energy transition has focused on the role of state capacity, with a particular interest in the ways in which

strong bureaucracies can enhance the likelihood of effective policy adoption, development, and implementation. Meckling and Nahm's (2018, 2022) work on state capacity points to the advantages of Weberian bureaucracies in equipping the state with the ability to withstand pressure from powerful organized interests such as the energy and energy-intensive manufacturing industries. These systems are characterized by their autonomy from political interests through the establishment of strong mandates, high levels of expertise, low levels of political appointees, hierarchical structures, and meritocratic recruitment processes. Civil servants in such bureaucracies are better insulated from business and public opposition to climate policies than politicians reliant on voter support (Finnegan 2022). Meckling and Nahm (2022) suggest that bureaucratic capacity alone cannot explain variation in meeting emissions goals in advanced democracies given the relative uniformity of bureaucratic systems across these types of countries. Instead, they show how an understanding of *strategic* state capacity can be useful, by which they mean "the ability of the state – defined here as the executive and/or the legislature – to mobilize or demobilize interest groups in pursuit of official policy goals" (Meckling & Nahm 2022, p. 495).

Much of the adaptation literature has focused on formal public institutions (IPCC 2014). However, there is an increasing recognition of the need to understand dynamics among a diversified set of actors – including CSOs, epistemic communities, and the private sector. The concepts of polycentric (Ostrom 2010), multi-level (Corfee-Morlot et al. 2009), and network governance (Luthe et al. 2012) are all examples of an increasing attention to the role of collaborative arrangements for the effective management of climate change impacts.

While recognizing national governments as the primary respondents when it comes to climate impacts, we therefore explore the role of a wider set of actors in framing and managing loss and damage policies. This includes actors at the national level, like CSOs and meteorological offices, as well as regional and international organizations. We do not treat national governments as homogenous entities as we unpack the complexity of interministerial and interdepartmental cooperation and coordination as well as the power dynamics among them.

2.5.3 Pressure from Civil Society and/or Business Actors

In the realm of environmental politics, and climate change in particular, scholars have traced the influence of both international nongovernmental organizations (NGOs), such as Greenpeace and the World Wide Fund for Nature (WWF) International, and locally based NGOs and businesses (Betsill & Corell 2007; Downie 2014). Thus far, existing research on loss and damage governance has identified how NGOs have sought to influence global governance processes (Allan & Hadden 2017), but research on how other non-state actors – such as businesses, particularly the insurance industry – have been involved in these processes has been largely missing. Also overlooked in existing research is how

private actors and CSOs seek to shape the agenda in relation to loss and damage at the national level. Our research takes a small step forward in beginning to explore the role of non-state actors in this area, but we recognize that our contribution is modest. We sought out representatives of non-state actors, particularly NGOs, across all of the case studies and include a discussion of their activities and influence where it was raised by research participants. Our case studies paint a mixed picture. Some of our case studies show that civil society plays a crucial role in pushing the loss and damage policymaking agenda, with varying degrees of success. In other cases, loss and damage was not a priority for CSOs or their influence was negligible.

2.5.4 The Institutional Politics of Loss and Damage

The literature on climate policy and institutions has focused disproportionately on the advanced democracies (with some focus on emerging economies, see, e.g., Urpelainen 2022; Hochstetler 2020) and almost exclusively on mitigation policies (with some key exceptions from the literature on climate adaptation policy). In this book, we raise a series of questions about whether and how these institutional features will shape the likelihood, pace, and trajectory of loss and damage policymaking. We suggest that while these factors may help to explain policy variation in mitigation policy we should be wary of translating findings across these distinct domains of state activity. We return to considerations of how these institutions might matter in the book's conclusion. In our research design, we took an open approach to exploring the influence of various institutional features on loss and damage problem apprehension and policy development, keeping in mind that the domestic politics of loss and damage is still in its embryonic stages. While we can begin to consider and speculate on the distributive consequences of various facets of loss and damage policymaking, we also suggest they are heavily context-dependent and culturally defined. Our contribution focuses on deepening our understanding of these contexts in an empirically grounded way to allow us to begin to generate insights about how loss and damage policies are starting to emerge and the institutional politics that are involved.

2.6 IDEATIONAL CONTEXT

We follow Hall and Taylor's (1996, p. 938) articulation of sociological institutionalism to understand institutions not only as the "the formal or informal procedures, routines, norms and conventions embedded in the organizational structure of the polity or political economy" but also more broadly as the "symbol systems, cognitive scripts, and moral templates that provide the 'frames of meaning' guiding human action." (p. 947). As such, we see the ideational context as potentially playing a crucial role in shaping loss and damage policy outcomes. This echoes research on climate change mitigation, which has

explored how climate change as a "governance object" has been constructed (Allan 2017) and how shifts in ideas have shaped institutional and policy development (Meckling & Allan 2020).

In each of our case studies, we consider three types of ideas that can affect the way policymakers think about loss and damage. First, we examine the availability of scientific knowledge about climate change impacts in each setting. Second, we turn to the way identities might matter when engaging with loss and damage as a concept. This could include relevant national identities such as those linked with being an emerging economy or falling into the Small Island Developing State (SIDS) category or being seen as a leader in relation to gender equality or human rights. This could also include the navigation within domestic politics of other types of collective identities such as belonging to Indigenous communities. Third, we look at normative considerations in policy innovation, which may include the influence of norms of global fairness and responsibility, different types of development paradigms, and norms of environmental protection or human rights approaches in decision-making related to loss and damage. Where relevant, we also consider ideological values, for example, along a typical left–right spectrum, and the ways in which they may play a role in policymaking.

2.6.1 Availability of Scientific Research and Other Forms of Knowledge

There is now a rich literature exploring the role of knowledge in environmental policymaking (Ascher et al. 2010; Rayner 2012) and in the construction of climate change as a "governance object" (Allan 2017). Research in the field of science and technology studies has pointed to the interrelationship between politics and knowledge production. Some early studies of climate policymaking suggested that individuals in developing countries may have limited access to credible information about climate change and are correspondingly less motivated to take action (Held et al. 2013). Some studies targeted knowledge among the broader electorate while others focused on the knowledge held by politicians and policymakers (Harrison & Sundstrom 2010, p. 4).

A key insight emerging from the literature on loss and damage is the discrepancies in our knowledge of climate risks and actual loss and damage. Barnett et al. (2016) argue for the development of a science of loss that requires three forms of knowledge: (a) an understanding of value, including what people value highly, the ways in which things come to be valued, and how values vary over space and time; (b) the climatic and social drivers of undesirable changes that put the things that people value at risk; and (c) should losses arise, the means and extent to which suffering can be minimized and managed. In a wide-ranging survey of forms of loss, Tschakert et al. (2019) highlight that most accounts about lived experiences of harm are from rich countries. They argue that this constitutes a form of epistemological injustice whereby certain

forms of harm among the poorest people are underrepresented in our scientific knowledge (Tschakert et al. 2019).

2.6.2 Identities

The concept of identity has become a cornerstone of constructivist thinking and a precursor to understanding how and why states' interests can change over time. Recent work has explored the relevance of these ideas to climate change politics (Sikkink 2023). Several earlier studies examine how the interests of states are shaped by their identity and how states' identities can change when interacting within the international system (Alexandrov 2003; Berenskoetter 2017). Scholars of global environmental politics have drawn attention to the ways in which a state's behavior is influenced by its desire to cultivate a particular identity, even at the expense of its material interests or physical security. In this book, we explore whether states' perceptions of their national identity (e.g., being a middle-income country or a SIDS) in the international sphere or the pursuit of specific development paradigms (being a tourism economy or green economy leader) affects the way and the extent to which they engage with loss and damage as a policy domain.

2.6.3 Normative Landscape

At the global level, recent research has raised questions about the potential for norms to play a more significant role in the politics of climate change. Sikkink (2023) argues for more research on norms and norm cascades in the politics of climate change. She notes that norms "can become part of state and subnational identities, which in turn influence behavior" and further suggests that norms and norm-underpinned identities "explain why some policy makers take costly action and how the very idea of what is rational is changed by the beliefs of some actors" (2023, p. 1). For those studying the role of norms, the focus has been disproportionately on norms in relation to mitigation and specifically anti-fossil fuel norms (Green 2018; Sikkink 2023; Van Asselt & Green 2023) though others have deployed the norm cascade idea to, for example, strategies to trigger a "participation cascade" in relation to decarbonization efforts (Busby & Urpelainen 2020).

The normative debates about loss and damage at the international level have been fairly clear-cut, with advocacy groups arguing that the international response to loss and damage is a paradigmatic example of the global injustice of climate change. Representatives of developed states have consistently refuted a framework that ascribes liability or prescribes compensation as an appropriate response to climate-related losses (Allan & Hadden 2017; Vanhala & Hestbaek 2016). Meanwhile leaders from the Global South have argued that they have done the least to contribute to historic emissions and yet bear the brunt of the impacts of climate change. These norms of global fairness and

responsibility have loomed large in climate negotiations since the early 2010s, without much sway in terms of material outcomes until the early 2020s, when there was an agreement at COP27 to establish a fund to respond to loss and damage. Previous research has highlighted how different framings of loss and damage – a risk-centered perspective versus a harm-focused approach – have implications for the types of policies and institutions that are seen as appropriate and desirable for effective governance (Vanhala & Hestbaek 2016). However, there has been little research to date showing how these normative framings translate to the national level.

Norms also play a key role in explaining support for climate-related policies at the national level. In the tradition of comparative environmental politics, this is often discussed in terms of the values of the population or relevant policymakers (Bechtel et al. 2019; Cole et al. 2022; Drews & van den Bergh 2016). A classic framework would explore ideological values along a traditional left–right spectrum. While "green" issues can often cut across this spectrum, political parties on the left tend to be more willing to pursue the kinds of regulatory or tax interventions that curb the growth of GHG emissions. How this translates into the politics of climate change loss and damage is less clear.

2.7 LIMITATIONS

An important limitation of our study is that our research design does not allow us to disentangle the relationship between regime type and the take-up of climate policy, or the interaction between different levels of economic development and engagement on loss and damage by national governments. We also lack population-level data on attitudes toward climate change and climate policy in most of our country case studies.

Existing research has suggested that different types of political systems – regime type, electoral systems, interest mediation systems, and party systems – shape the context for the setting of climate policy. Regime type, discussed earlier, may be important in the question of how and why countries develop loss and damage policies, but our research strategy does not able us to speak to this. It is worth noting that debates on the impact of democracy and society on environmental protection have so far been inconclusive. The evidence has been mixed on the types of domestic institutions that will best enable countries to take decisive and positive action on a problem of the nature and scale of climate change. Some scholars and practitioners are skeptical that democratic institutions are necessary or even desirable, suggesting that authoritarian regimes may be better placed to take the sorts of rapid, decisive, and possibly unpopular action that is required given the urgency of the climate crisis (Beeson 2018; Gilley 2012). However, this argument is complicated by evidence that suggests that economic growth is a greater source of legitimacy for authoritarian regimes than environmental protection and that it may be corruption rather than regime type that matters in explaining policy adoption and

implementation. For both elected and nonelected leaders, there is an incentive to invest in short-term socioeconomic programs that provide tangible benefits to the population rather than in long-term, far less visible projects concerned with climate change.

At the heart of loss and damage governance there are questions about what is seen as valuable, by whom, and why. In this book, we suggest that accountability, the free flow of information, and civil rights and freedom of expression are critical for effective and legitimate policymaking. We see participatory, deliberative processes as being most likely to result in effective loss and damage governance. Recent research on the attributes of effective adaptation activities has found that collaborative decision-making and the sharing of physical and informational resources are important (Owen 2020). Our research design does not allow us to disentangle these types of effects given our small number of case studies, but we do highlight insights from the research that may be useful in formulating initial hypotheses on the potential mechanisms that may be at play within different types of political regimes.

Similarly, our research does not allow for systematic comparison of the relationship between levels of development – as expressed by measures like gross domestic product (GDP) per capita – and loss and damage policymaking. Levels of development have been put forth as a key factor accounting for the adoption of climate change policy. Studies have tended to focus on mitigation efforts, with some recent attention on adaptation policymaking, and have found that higher levels of economic development allow a state to develop the material and technological capacity to respond to climate change (e.g., Held et al. 2013; Massey et al. 2014). This picture has been complicated by Madden (2014) arguing that GDP per capita has had a modestly negative relationship with major climate policy adoption; Bättig and Bernauer (2009) finding that economic growth has no significant effect on policy output; and Kim and Wolinsky-Nahmias (2014) highlighting that a population's attitude toward climate change is not straightforwardly related to national affluence. Rather than looking at development levels, we focus on the way the "development paradigms" pursued by countries affect loss and damage policymaking (discussed in Section 2.6).

Finally, scholars of public policy have argued that understanding public opinion is essential for designing effective climate policies and for shaping behavior change at the individual level. Some have argued that individuals in developing countries are less likely to hold post-materialist "green values" and are therefore less likely to see climate action as a priority (Held et al. 2013). Others have suggested that a sense of historic injustice and mistrust of developed countries may be contributing to an unwillingness to cooperate on climate change (Edwards & Roberts 2015). Emerging research on how vulnerability to climate change impacts is shaping public opinion and political behavior may be important for understanding the likelihood of state's adoption of policies to address loss and damage (see Gaikwad et al. 2022).

2.8 OUR APPROACH

Given that climate-related loss and damage is a new area of governance, we take an abductive approach in our research design, that is, one that moves iteratively between existing theoretical explanations – developed to account for mitigation and adaptation policies – and the qualitative data generated through our case studies. We center on the perspectives of key policy stakeholders and explore how loss and damage is being thought about in specific contexts. Our interest lies in understanding how and why policymakers have understood the problem of loss and damage in the ways that they have and how ideas circulate among institutions and across scales of governance. We seek to explore how these ideas are then put into motion (or not) by those in power.

In terms of the outcome of interest, we look at the adoption of national policies and programs to address climate change loss and damage. Yet this deceptively simple outcome raises several critical issues. We address the two we see as most important here. First, how do we identify a loss and damage policy when we see one? Policies, strategies, or programs that refer explicitly to climate change loss and damage would be one obvious operationalization strategy. We refer to these as "explicit" loss and damage policy measures. However, this would overlook a broad range of measures and activities that seek to grapple with the types of issues one might think of as a loss and damage governance response when translating this concept from the international level – for example, measures dealing with early warning systems, human mobility, or mental health impacts from climate-related events. We consider these as "implicit" loss and damage policy measures. This explicit/implicit distinction poses challenges when seeking to conceptualize and operationalize our outcome of interest. To grapple with this, we draw on a sociological institutionalist approach to reconstruct *in situ* understandings of what a loss and damage policy response is. In doing so, we are interested in the processes of meaning-making that are at play within jurisdictions over what the policy problem of loss and damage entails and how best to respond to it.

However, unlike most approaches to sociological institutionalism, we bring in an understanding of how material politics – the ways in which the material realities of climate change impacts – make themselves known in domestic politics. In doing so, we are able to explore both the subjective and material elements that create the conditions for loss and damage to become a policy object at the national level. In other words, we turn attention to the policy actors and the material, institutional and normative frameworks within which they are situated as they identify and make sense of loss and damage as a problem that requires a policy response. We explore (a) relationships between national-level institutions to understand where authority lies and how this shapes loss and damage policymaking and (b) how the situatedness of policy actors shapes their understandings of loss and damage and what kinds of loss and damage policies are required.

A second critical issue in our methodological approach is ensuring that due attention is paid to the various stages of policy development rather than only privileging those jurisdictions which have been leaders. We are as interested in countries in which we might expect to see loss and damage policy discourses and discussions, given their vulnerability to climate change impacts, but where those debates are absent and also jurisdictions which have seen policies that "failed to launch." In this way, we are seeking to correct a selection bias issue in comparative climate politics which tends to focus on those policies that were ultimately successfully adopted. Our research shows that there is much to learn from legislative bills that get "stuck" in the process. Our holistic approach looks not only across institutions but also at how they change over time, which helps us to avoid problems of selection bias.

The outcome of interest – domestic policies or programs that deal with loss and damage – is not straightforward. The range and complexity of climate policies – to say nothing of other areas of policymaking that touch on climate change adaptation, disaster risk management (DRM), natural resource management, or social and economic development – present a significant challenge in studying the uptake of loss and damage measures. Our approach offers a way forward in that we draw attention to different actors and the jurisdictions and institutions within which they are situated. These agents can all play a role in framing loss and damage at the national level and diffusing certain conceptualizations of it or putting barriers to policy development in place.

We have used an iterative approach for our data-gathering and analytical strategy. We began first by undertaking a document analysis to understand whether and how states mentioned loss and damage in their submissions to the UNFCCC. We examined, for example, their first, second, and/or third national communications, as well as their NDCs and NAPs. We also looked at specific government reports and general reports on loss and damage governance, drawing on the World Bank's Climate Change Knowledge Portal, Climate Action Tracker, and the Organisation for Economic Co-operation and Development's research and publications. We also consulted academic literature on each country and sought out gray literature produced by research organizations and CSOs both within and beyond our case study countries.

We then undertook a large number of semi-structured interviews: seventy-five in total across the seven countries between 2019 and 2023, supplemented by interviews with UNFCCC stakeholders. We primarily targeted civil servants and politicians who are involved in processes of policy development but, given that the process of policy formation can be influenced by a wide range of non-state actors, we also broadened our research participants to include the business sector, civil society, donors, and epistemic communities, where possible. We asked our research participants about their understandings of the impacts of climate change for their area of policy and practice and how those impacts were relevant (or not) for their institution. We also asked specifically about loss and damage – whether the term held relevance to the stakeholder

and what it meant within the policy landscape, how it might appear in policymaking, and their understandings of the distinctions between adaptation, DRM, and loss and damage. We explored their engagement with regional and international organizations and we asked about what kinds of knowledge they draw on and where key gaps lie.

We came to the case studies with an understanding of developments at the international level and then undertook an open coding of the interview data to not only explore existing topics (such as slow onset events, noneconomic losses, and migration) but also identify new framings or conceptualizations within each jurisdiction. We then explored the interrelationship between the themes we had identified and the existing accounts of climate policy adoption we have identified in this chapter.

Our final step after the fieldwork analysis was to come back to the country's national laws, plans, and policy documents. This allowed for a deeper understanding of these documents in light of our interview data. It also enabled us to expand our analysis to include policy areas and related documents that were referred to in the interview data. As our learning advanced, the pool of relevant documents to be analyzed grew to include strategies, policies, and plans related to environmental management; climate change adaptation, including sectoral policies explicitly addressing climate change impacts; DRM; and sustainable development.

In most of our case studies (Antigua and Barbuda, Ethiopia, The Bahamas, Chile, and Bangladesh), research was undertaken collaboratively with local experts and researchers. Some of these collaborations were borne from limitations on the editors' and authors' ability to travel due to the COVID-19 pandemic, which meant that extensive fieldwork was not possible for some of our case studies (the editors undertook ethnographic fieldwork in Antigua and Barbuda, Tuvalu, and Peru in the year before the pandemic and this data informs those chapters). However, we found that working with local partners brought a new dimension to the study: It was fundamental for gaining an in-depth understanding of the political, social, and cultural context of our case study countries and helped us to unpack local dynamics and complexities in a collaborative way. It also helped to create networks with local institutions that can facilitate the uptake of the project's insights at the national and local level.

2.9 CONCLUSION

This chapter has outlined existing theoretical approaches that have been developed and tested to account for the uptake of climate policy in the field of mitigation and adaptation. In this chapter we have sought to conceptually explore the extent to which these approaches may provide analytical leverage in explaining policy adoption and innovation in relation to addressing climate change loss and damage.

Based on this literature, we might anticipate that a critical driver of climate policy development in this realm would be a country's experience of climate hazards and the material context within which policymakers are acting: For countries already experiencing key climate change impacts and reaching limits to adaptation, it would be reasonable to anticipate greater attention to loss and damage policy. With respect to international engagement, we might anticipate that policymakers that have been involved with developments within the UNFCCC on loss and damage, for example, those involved in the negotiations or sitting on the Warsaw International Mechanism Executive Committee, will push for domestic-level action on the issue. However, we also expect engagement with the international level to be a two-way street given the still shifting terrain on loss and damage. Because of the slow pace of movement on climate finance for loss and damage, we do not yet expect to see financial incentives as a key driver of domestic action but we anticipate that this will change rapidly with the agreement and operationalization of a loss and damage fund at COP28 in 2023. We would expect institutional perspectives on the issue to shape national-level engagement contingent on sufficient institutional capacity and resources. Finally, we would expect policymakers to be more likely to pursue loss and damage policies in those jurisdictions where there is more scientific knowledge and better data available on climate risks and/or where there are normative underpinnings suggesting that loss and damage policies are an appropriate behavior in line with a particular ideological, normative, or identity-related framing.

The book contributes to efforts to broaden research on climate policy in the Global South by studying countries that are among the most vulnerable to climate change impacts, including SIDS, least developed countries, and emerging economies. Often these countries are overlooked in research on climate policy or are deemed insufficiently "strategic" in terms of case selection strategies given their relatively small populations, perceptions about their peripheral geopolitical roles, and/or their unique social or material circumstances. Here we seek to combat what has been coined an "epistemological injustice" in the literature on climate change losses, whereby we know least about loss and damage in the poorest countries which stand to lose the most (Tschakert et al. 2019). We follow Dubash (2021) in selecting cases based on a diverse case design, aimed at enabling exploration of patterns in relation to loss and damage policy development and the drivers of policy adoption. Our set of cases is not representative of global diversity but is constructed to capture some diversity among countries vulnerable to climate change impacts.

The following chapters present the individual cases, which reveal the richness and breadth of loss and damage policy debates at the national level and provide us with a wide range of variation in terms of types of climate hazards being faced, political regime type, GDP per capita, and institutional and ideational landscapes. The book advances understanding

of how policymakers across sectors conceptualize loss and damage, identifies the barriers and constraints in policymaking across countries, and traces the wide range of policies that are being deployed to grapple with different types of climate impacts. In doing so, the book seeks to begin to show the way to more effective governance of loss and damage now and in the future.

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3

The Loss and Damage Policy Landscape

Tuvalu as a "Most Likely Case"

Elisa Calliari

3.1 INTRODUCTION

In a powerful pre-recorded message to the twenty-sixth Conference of the Parties (COP26), Simon Kofe, Tuvalu's minister of justice, communications, and foreign affairs, stood knee-deep in seawater and described the "deadly and existential threats" that climate change and rising sea levels pose to his country (Reuters 2021). As the second lowest-lying country in the world, and because of its fragile economy and social and environmental vulnerabilities, Tuvalu is severely affected by the impacts of climate change (Government of Tuvalu 2016a). The country has been very active in developing ways of responding to these challenges. It has incorporated climate change adaptation and disaster risk reduction measures into its national policies since the second National Strategy for Sustainable Development in 2005 (Government of Tuvalu 2005). Tuvalu has also been active in negotiations under the United Nations Framework Convention on Climate Change (UNFCCC), both within the Alliance of Small Island States (AOSIS) (Betzold et al. 2012) and the least developed countries (LDCs) group, to demand bold emissions cuts and ask for support to address climate change impacts. With respect to loss and damage, Tuvalu has played a sustained role in climate change negotiations, including advocating for a separate article on loss and damage in the Paris Agreement (Fry 2016). The country was also an active member of the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM ExCom) from its establishment in 2013 until 2022, when a new set of members were appointed.

As such, Tuvalu represents a "most likely case" for engagement with national loss and damage policymaking: It already faces significant loss and damage and has been heavily engaged with global policy development on the issue. This chapter explores how Tuvalu's policy actors make sense of and

attempt to govern loss and damage at the national level.[1] Using interpretive policy analysis (Yanow 2000) and thirteen semi-structured interviews with key government and civil society stakeholders, it scrutinizes the way loss and damage is framed both in official documents and interviewees' words. It finds that loss and damage does not feature as a stand-alone policy domain, nor is it explicitly distinguished from adaptation, but rather is treated as an issue which cuts across different sectors. It identifies, in particular, four policy areas in which the concept of loss and damage is consistently invoked: national sovereignty, climate-induced human mobility, infrastructure investment, and protection of the country's exclusive economic zone (EEZ). The chapter also discusses how insurance and risk transfer feature as a specific set of measures for acting on loss and damage.

The types of responses to loss and damage that the Tuvaluan government seeks to pursue in these policy areas involve actions that go beyond the national level – including the regional scale and international venues other than the UNFCCC. The chapter suggests that loss and damage in Tuvalu is developing as a "complex governance system" with competencies and agency spanning across multiple scales. It finds that ideas matter when devising certain responses to loss and damage. In particular, "sovereignty" is framed by local actors not only in its physical dimension (authority over a territory) but also in a more intangible way (maritime boundaries as identified irrespective of the impacts of climate change on shorelines). It also suggests that Tuvaluans' "sense of place" and emotional connection to their location (Corlew 2012) inform their strong determination to prevent climate-induced migration through policy.

3.2 NATIONAL CIRCUMSTANCES

Tuvalu is a micro-state in the South Pacific Ocean, which is home to around 11,200 people (World Bank Group 2021). Still classified as a LDC, it has met the criteria for graduation since 2012 based on human development indicators and per capita income. However, the United Nations Economic and Social Council decided to defer the consideration of Tuvalu's graduation due to the special vulnerability to climate change and other environmental shocks the country faces (UN Committee for Development Policy 2018).

The nine small islands composing the archipelago all lie less than five meters above sea level, making it the world's second lowest-lying country (Government of Tuvalu 2015a). Rising sea levels not only threaten livelihoods in the short term but also pose a long-term "fundamental risk to [Tuvalu's] very existence" (Government of Tuvalu 2015a). For the largest Tuvaluan island Funafuti,

[1] This chapter draws on a previously published article: Calliari, E., & Vanhala, L. (2022). The "national turn" in climate change loss and damage governance research: Constructing the L&D policy landscape in Tuvalu. *Climate Policy*, 22(2), 184–197.

sea-level rise has been "found to be about 3 times larger than the global mean sea level rise over 1950–2009" (Becker et al. 2012). Freshwater resources' quality is threatened by saltwater intrusion, coastal erosion, flooding, and inundation, while their availability is threatened by droughts (Government of Tuvalu 2015b) and land and marine heatwaves (World Bank Group & Asian Development Bank 2021). Changing climatic conditions, including increases in temperature and in rainfall, are also associated with risks to human health, such as vector- and water-borne diseases (Government of Tuvalu 2015b). As qualitative research on the ground with residents of Tuvalu has shown, droughts heavily impact daily life in Tuvalu, and the Tuvaluan participants regarded adaptation to droughts and a better water management as their most relevant adaptation need (Beyerl et al. 2018).

Irregular rainfall, rising temperatures, and increasingly intense tropical cyclones (IPCC 2021, p. 97) are also detrimental to the agricultural sector (Government of Tuvalu 2015a, p. 4), which represents a long-term threat to food security in the archipelago (World Bank Group & Asian Development Bank 2021, p. 13). Prolonged periods of dry weather and hot temperatures, alongside other climate change-related impacts, including ocean acidification, endanger not only fish stocks but also the stability of coral reefs (which are part of the morphological fundament of the Tuvaluan archipelago) through coral bleaching (Government of Tuvalu 2015b, p. 33; see also Becker et al. 2012).

Like many Small Island Developing States, the ocean, in particular fisheries, represents a significant proportion of income for Tuvalu and its population. At the plenary session of the 2017 UN Ocean Conference, the then Tuvaluan prime minister, Enele Sopoaga, described Tuvalu as probably "the most fisher-dependent nation on earth" and stressed that 40 percent of the country's annual national budget derives from the ocean and tuna fishing licenses in particular (Government of Tuvalu 2017c). Tuvalu has an EEZ of around 900 square kilometers (Government of Tuvalu 2015a) where it enjoys the exclusive and sovereign rights to manage natural resources. The country has placed significant emphasis on the future economic growth of the fishery resources contained within it. Yet as sea level rises, low-lying countries will lose their land – which serves as the baseline from which the EEZ is calculated under existing international law – and as a result their EEZ will contract.

3.3 POLICY LANDSCAPE

Adaptation decisions at the national level are generally driven by the goals and priorities set out in the country's National Sustainable Development Strategy (Morioka et al. 2019). While the first development strategy (1995–1998) did not include environment-related priorities, Te Kakeega II: National Strategy for Sustainable Development 2005–2015 (TKII) explicitly mentioned climate

change as a key concern. It identified saltwater inundation of pulaka pits,[2] coastal erosion, and flooding as the main impacts associated with climate change and sea-level rise and noted how climate events could suddenly reverse development gains (Government of Tuvalu 2005).

Under the impulse of TKII, Tuvalu adopted its first climate change policy in 2012. The policy, Te Kaniva (2012–2021), aims to "protect Tuvalu's status as a nation and its cultural identity and to build its capacity to ensure a safe, resilient and prosperous future" (Government of Tuvalu 2012a). It is meant to be "cross cutting," given that "climate change impacts affect every development sector and Tuvaluans' way of life." The policy sets seven goals for scaling up the country's responses to climate change, with a dominant focus on adaptation and disaster risk reduction. Te Kaniva is the first policy document to explicitly mention loss and damage and does so under Goal 1 on strengthening adaptation actions. In particular, Strategy 1.8 calls for defining "appropriate insurance arrangements to address loss and damage from the impacts of climate change" and suggests that the "cost of re-building from the impacts of climate change are primarily borne by major GHG [greenhouse gas] producing countries" (Government of Tuvalu 2012a). Loss and damage is also mentioned in the related Tuvalu National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016, which operationalizes the provisions of Te Kaniva by identifying responsible agencies, implementation arrangements, and monitoring and evaluation mechanisms and provides an indicative costing for implementation (Government of Tuvalu 2012b). Specific actions to fulfil Strategy 1.8 include "investigat[ing] and establish[ing] appropriate insurance arrangements to address loss and damage from the impacts of climate change" and seeking funding to fulfil this aim (Government of Tuvalu 2012b). The new National Climate Change Policy, Te Vaka Fenua o Tuvalu (2021–2030) explicitly links loss and damage to the issue of national sovereignty and the safeguard of Tuvalu's identity and cultural heritage (Government of Tuvalu 2021a). In particular, the policy calls for integrating loss and damage in all adaptation projects and programs, and risk management processes of the government.

Our interviewees further connected loss and damage to two key aspects: (a) the need for an international policy for forced migration due to climate change and (b) the need to protect the EEZ (Interviews 9, 12). On the first point, the government has been pushing in recent years for "a UN General Assembly resolution establishing a system of legal protection for people displaced by the impacts of climate change" (Government of Tuvalu 2016b). During the high-level signing ceremony for the Paris Agreement, Prime Minister Sopoaga specified that the concern was "not an indication that the people of Tuvalu want to

[2] Pulaka (*Cyrtosperma merkusii*) or "swamp taro" is a root vegetable mainly grown in Tuvalu and is a key component of islanders' traditional diet. Pulaka is grown in pits and is dependent on groundwater to maintain soil moisture.

migrate" but rather a humanitarian one and that was "one aspect of the Loss and Damage agenda" (Government of Tuvalu 2016b).

The pursuit of a legal instrument at the international level to deal with climate-related migration is at odds with the way the issue is framed in the 2015 Tuvalu National Labour Migration Policy (NLMP) (Government of Tuvalu 2015b). This document, developed by the former Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour in partnership with the International Labour Organization's (ILO) Office for Pacific Countries, was supported by the EU-funded Pacific Climate Change and Migration Project (PCCM 2014), which specifically promoted a "migration as adaptation" frame (Remling 2020). The inconsistency between the international protection instruments sought at the international level – as based on Te Kaniva – and the "migration as adaptation" discourse embedded in the NLMP was flagged as one reason for the delay in the launch of the latest policy Te Vaka Fenua O Tuvalu 2021–2030 (Interviews 1, 2, 12). As one interviewee noted:

> In the labor migration policy, it has a different framing, and they have included climate change as one of labor migration, which is to some extent, of course it's true, but the way it's been framed, it's not aligning to what we have proposed and agreed to by cabinet, to look at legal protection of people displaced by climate change. (Interview 12)

The protection of the current EEZ, which implies securing sovereign rights over the natural resources it contains, becomes relevant even in a scenario of forced migration due to climate change. As a government official said, protecting the EEZ will allow the country to "stamp it as our waters and, even if we are to relocate at a later stage, we will continue to lay ownership on it" and this will provide resources "so that we can have our own way of developing our own people in the future. … We'd have that territory, a piece of territory" (Interview 9).

Loss and damage is further mentioned in Te Kakeega III (New National Strategy for Sustainable Development): National Strategy for Sustainable Development 2016–2020 (TKIII), which represents Tuvalu's eighth National Development Plan. In this document, loss and damage features as a strategic stream which rests on several milestones up to 2020 including: (a) identifying options for risk transfer and an insurance mechanism; (b) establishing and implementing a "Survival Plan for Tuvalu," which would also address the issue of climate-induced migration; and (c) solidifying the concept of loss and damage in national law by amending relevant legislation (Government of Tuvalu 2015a). The 2019 Climate Change Resilience Act has given the concept of loss and damage a legal foundation by including "Addressing loss & damage associated with climate change" as one of its eight policy objectives (Government of Tuvalu 2019a). The Act states that the Department of Climate Change and Disaster (DCCD) shall "formulate, apply, and implement" a national climate change policy and that strategies and plans to implement it should include "secur[ing] funding for … issues related to loss and damage associated with

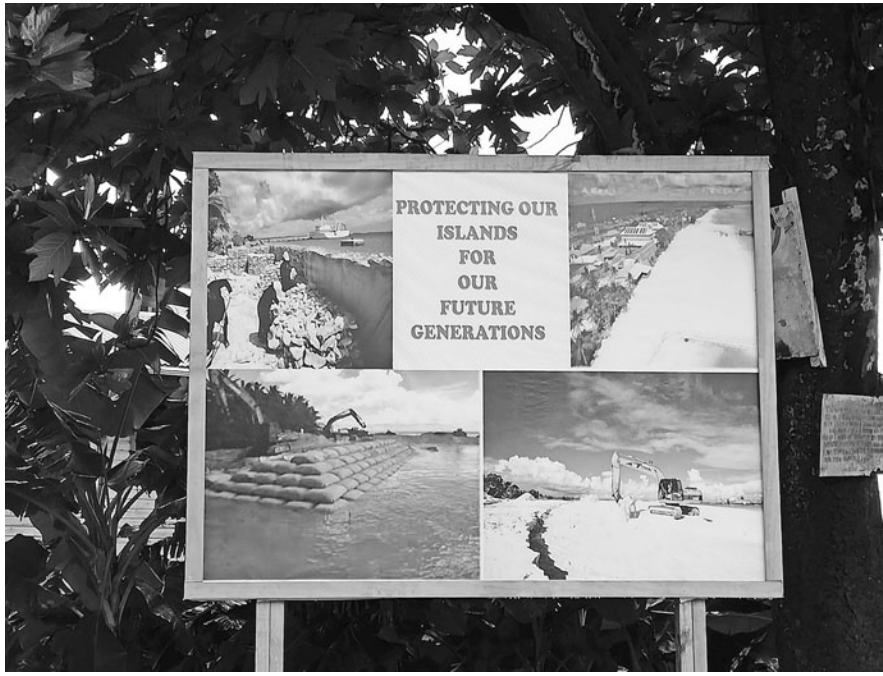

FIGURE 3.1 Billboard in Funafuti on Tuvalu's coastal adaptation project (August 2019). Photograph by Elisa Calliari

the adverse effects of climate change, including extreme weather events and slow onset events." Loss and damage is also mentioned under Section 17 on "Precautionary approach," which states that the lack of full scientific certainty regarding the extent of adverse effects of climate change should not be used as a reason for not acting to prevent or minimize the potential adverse effects or risks "includ[ing] serious or irreversible loss or damage as a result of climate change" (Government of Tuvalu 2019a). With respect to the "Survival Plan of Tuvalu," we could not find evidence of its development – at least in this form.

Finally, the Tuvalu Infrastructure Strategy and Investment Plan 2016–2025 (TISIP) – falling under TKIII – identifies climate change impacts causing loss and damage to assets and measures to protect them (Government of Tuvalu 2017b). Impacts include those associated with cyclones (wind, trees falling, destructive waves), storm surges (flooding, erosion), sea-level rise (erosion, seepage), and temperature (health, asset failure). The document understands "loss and damage" in material terms, as the negative impacts to buildings, roofs, foundations, coastlines, and assets like roads, power transformers, generators, and cables (Figure 3.1). It identifies several measures to enhance these assets' resilience, like enforcing building codes, elevating houses and equipping them with stronger roofs, land reclamation, beach nourishment, and improved design specificities for technological assets.

As this overview of the policy landscape shows, loss and damage is seen in Tuvalu not as a stand-alone policy but as inherently connected to other policy domains. In official documents, it is explicitly connected to three key policy areas: national sovereignty (see Te Vaka Fenua o Tuvalu), climate-induced displacement (see TKIII) and infrastructure (see TISIP). Interviews identified a fourth area associated with loss and damage which concerns the protection of Tuvalu's EEZ (Interviews 9, 12). This supports the observation by a research participant that "loss and damage cuts across all sectors … we look at … the vulnerable sectors" (Interview 12).

Te Kaniva and TKIII also highlight a specific set of measures for acting on loss and damage, namely, insurance and risk transfer. Since 2016, the government has been working on a proposal for a Pacific Islands Climate Change Insurance Facility (PICCIF), which should overcome the narrow focus on natural disasters of current initiatives – namely, the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) (World Bank Group 2015) – and specifically target both immediate impacts like cyclones, droughts, floods, and coral bleaching and longer-term impacts like population displacement, ocean acidification, changes in fish stocks, and sea-level rise leading to loss of land and territory. Yet the concept note prepared by the government on the PICCIF emphasized that "insurance is not a universal remedy for all types of loss and damage caused by climate change" and "other supportive finance will be necessary" (Government of Tuvalu 2017a).

The interviews further reveal that public sector stakeholders understand loss and damage along a continuum with adaptation and as an issue that should be dealt with through comprehensive risk management (CRM) approaches. In the words of one stakeholder: "How are you going to really draw the line and say, 'Okay, I'm going to stop my adaptation here, everything else that comes after that, that's all loss and damage'? … That's not very practical …. What policy can look at is the broader picture" (Interview 12). Along these lines, policymakers mentioned that loss and damage would be included in the National Adaptation Plan (NAP) – which aims at consolidating priorities for adaptation across the six key sectors of water, agriculture, fisheries, health, disaster, and coastal protection – in an indirect way. The stakeholder continued:

> So the issue now [is that] people … just come and look at your document [and ask] "where is loss and damage?" But it is not necessary to have specific reference to loss and damage but rather, in the explanation of the plan, to say "we wanted to plan this as part of adaptation" but also recognizing that …we need to plan how to mitigate those losses and damages once we get into that phase of loss and damage. (Interview 12)

Another government official partially challenged this point by recognizing that the lack of evidence on loss and damage was one of the reasons for it not being mentioned explicitly in the NAP. This was also a driving factor in the push to "look into the more vulnerable issues that need immediate attention" (Interview 11).

3.4 INTERNATIONAL ENGAGEMENT

Section 3.3 shows that the Tuvaluan government has sought to develop loss and damage responses by turning to the regional level and international venues beyond the UNFCCC. A key example of action at the international scale is the government's attempt to develop a system of legal protection within the UN to deal with the issue of climate-induced migration. One such initiative includes the draft resolution "Providing legal protection for persons displaced by the impacts of climate change," which was presented by the government at the seventy-third session of the United Nations General Assembly (UNGA) in July 2019 (Government of Tuvalu 2019b) but did not obtain the required support (Aleinikoff & Martin 2022). The document calls for the development of "an international legally binding instrument" and rallies the international community, in particular the parties to the UNFCCC, to "take concrete action to meet the protection and assistance needs of displaced persons and to contribute generously to projects and programs aimed at alleviating their plight, facilitating durable solutions and supporting vulnerable local host communities" (Government of Tuvalu 2019b, pp. 3–4). As a high-level government official explained, the aim is to avoid people being put "into a refugee camp" and instead being granted the right to have "some kind of society that they can really live [in]," including "a governing body," and the opportunity to "practice their culture" and enjoy the "kind of amenities that they used to have in their own location … like hospitals and all of that" (Interview 9). Several interviewees reiterated the need for international cooperation, either in the form of international law (Interview 1) or regional policies (Interview 2) and/or by exploring bilateral arrangements (Interview 6).

Similarly, the protection of the EEZ is pursued in the context of the international negotiations of the United Nations Convention on the Law of the Sea (UNCLOS). When asked about the connection with loss and damage, a government official explained: "The reasoning behind it is of course because it has linkages to that, but the UNFCCC cannot change our EEZ, it is the Law of the Sea that needs to change our EEZ or ensure that it is established. That's why it goes to the UNCLOS" (Interview 12). The protection of the EEZ is a common concern across the Pacific region. In 2021, the Pacific Islands Forum (PIF) leaders released the "Declaration on preserving maritime zones in the face of climate change-related sea-level rise," where they "proclaim[ed] that our maritime zones, as established and notified to the Secretary-General of the United Nations in accordance with the Convention, and the rights and entitlements that flow from them, shall continue to apply, without reduction, notwithstanding any physical changes connected to climate change-related sea-level rise" (Pacific Islands Forum 2021).

Tuvalu has cooperated with several Pacific countries on EEZ-related matters since the early 1990s within the Pacific Islands Forum Fisheries Agency (FFA) and since 2001 within the Pacific Community (SPC). For

instance, the Resilient Boundaries for the Blue Pacific project (2020–2022) by the SPC aims to support Pacific countries in assessing and addressing the legal and technical implications of climate change on maritime zones (GEM 2021). The protection of maritime boundaries is a key theme for subregional fishery agreements in which Tuvalu participates. In March 2018, the signatories of the Nauru Agreement signed "The Delap Commitment on Securing Our Common Wealth of Oceans,"[3] where they recognize the "threat to the integrity of maritime boundaries and the existential impacts due to sea level rise" and agreed to "pursue legal recognition of the defined baselines established under the United Nations Convention on the Law of the Sea to remain in perpetuity irrespective of the impacts of sea level rise" (PNA Leaders 2018).

On the issue of risk transfer tools, PIF leaders have not shown the same unity as in the case of the protection of the EEZ. Here Tuvalu has been leading the endeavors of Smaller Island States (SIS)[4] to develop a Pacific insurance scheme, the PICCIF, which is meant to compete with the PCRAFI, where the PIF is involved. In fact, the government considers PCRAFI "a top down model and that it does not properly respond to the climate change impact needs of Pacific Island countries" given its focus on natural hazards. The government also expressed concerns that "the premiums are too high and the pay-out too low" (Government of Tuvalu 2017a). While PIF leaders' response to PICCIF was initially tepid (Newton Cain & Dornan 2017), they later agreed to hold several workshops and meetings of a dedicated taskforce to develop the concept (SPREP 2020).

Finally, while explicit references to compensation have largely disappeared within the UNFCCC context, Tuvalu has helped to spearhead efforts to seek compensation for loss and damage outside the UNFCCC and the Paris Agreement. One research participant noted, when reflecting on loss and damage negotiations in the context of the Paris Agreement: "We always wanted provisions for compensation in the Paris Agreement but realized that to get loss and damage in the Paris Agreement we had to drop our demand for compensation …. Some sort of compensation regime will need to be developed. This may have to be developed outside of the UNFCCC" (Interview 13). At COP26, the prime minister of Tuvalu signed an agreement with the prime minister of Antigua and Barbuda to establish the Commission of Small Island States on Climate Change and International Law (COSIS). One of the first steps was to consider requesting an advisory opinion from the International Tribunal for the Law of the Sea on the legal responsibility of states for carbon emissions,

[3] The Nauru Agreement was signed by Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu.

[4] SIS includes the Cook Islands, Micronesia, Kiribati, Nauru, Niue, Palau, the Marshall Islands, and Tuvalu.

marine pollution, and rising sea levels. The aim is to "develop and implement fair and just global and environmental norms and practices, including compensation for loss and damage" (Government of Tuvalu 2021b). At its meeting in August 2022, COSIS decided to establish three working groups, comprising both international lawyers and representatives of member governments, to advance the objectives of the commission.

3.5 INSTITUTIONS

The Climate Change Department (CCD) plays a key role in climate change adaptation policymaking. Its position in Tuvalu's institutional architecture has changed over time due to the increasing centrality of climate change as a topic for the country. In May 2015, the Climate Change Unit within the Ministry of Environment merged with the National Disaster Management Office, under the Office of the Prime Minister, leading to the creation of the Department of Climate Change and Disaster (DCCD).[5] The department was placed under the Office of the Prime Minister so to "have more focus on it" (Interview 9). As one research participant noted, the government at that time saw the "relevance, and … benefit of bringing the two together, given the interlinkages of issues of addressing DRR [disaster risk reduction] and also CCA [climate change adaptation]" (Interview 12). In 2019, the DCCD was moved under the Ministry of Finance and changed its name into CCD. The functions of the CCD in building resilience to climate change are detailed in the Climate Change Resilience Act 2019 (Government of Tuvalu 2019a), while those related to disaster risk management are rooted in the National Disaster Management Act (2008). A key responsibility of the CCD is to support Tuvalu's involvement in climate change negotiations and in disaster risk management platforms at the regional and international levels.[6] With specific reference to loss and damage, its director was an active member of the WIM ExCom from its establishment to 2022.

While the CCD's international activity has been a predominant part of its work, one research participant observed a shift toward more domestic issues after the devastation brought about by Cyclone Pam in 2015:

> I think the Department of Climate Change and Disaster, before, they were focused on that international/regional stage. They're focused on all of the policies for Tuvalu, except that they weren't focused on the country, they were so focused on getting the message out, that they weren't actually focused on the people, the Tuvaluans. So after that happened [TC Pam], it was good. There was a huge interest in getting everything sorted out on the ground. (Interview 3)

[5] Also referred to in the beginning as Climate Change Policy and Disaster Coordination Unit or as Climate Change and Disaster policy Unit.

[6] See www.tuvaluclimatechange.gov.tv/climate-change-unit, last accessed April 22, 2023.

Cyclone Pam also provided a major push toward the establishment of the Climate Change and Disaster Survival Fund (TSF), which was launched in 2016 to support climate change adaptation investments as well as recovery from climate change impacts and natural disasters. While the TSF's establishing Act states that it can be used to "enhance resilience and protection against climate change and natural disasters," its main focus is on providing communities with immediate support when a disaster strikes (Pacific Islands Forum Secretariat 2018). The establishment of the TSF in the aftermath of a major disaster might explain its focus on response and rehabilitation/reconstruction rather than on proactive adaptation. Similar to the institutional disruption brought about by Hurricane Dorian in The Bahamas, discussed in Chapter 5, Cyclone Pam seems to have prompted a shift within the existing institutional arrangements, both by adjusting the focus and mandate of the CCD and by driving the emergence of new bodies, such as the TSF.

The CCD serves as the secretariat of the National Advisory Council for Climate Change (NACCC), which brings together different agencies within and beyond the government to ensure collaboration across relevant sectors "like fisheries, agriculture, water, health" (Interview 12) and reports directly to the cabinet. Several research participants pointed to the NACCC as a good practice example of collaboration across different actors working on climate change-related projects (Interviews 7, 9, 12). For instance, one interviewee noted that "getting everyone together, it's not a challenge that I can think of. Establishing the NACCC was one good way forward that allows us to talk to each other" (Interview 12). Yet other actors even within the public administration tended to identify challenges in collaboration, for instance when it comes to data sharing (Interviews 3, 7). For example, one noted how their department "will want to share the reports, but not the raw data" and how this fact constrains the possibility for other departments to contribute with "views" and "thoughts" (Interview 7). A representative from a large national nongovernmental organization (NGO) similarly remarked that "each department is holding on to their assessment outcomes … and it's not being shared amongst everybody else" and concluded that "everybody tends to act in silo" and "that's one of the biggest problems that we have here in Tuvalu" (Interview 3).

3.6 IDEAS

This section focuses on how different ideas inform the type of responses that are devised for dealing with loss and damage. It starts by highlighting how climate change is framed as an existential threat for Tuvalu and how the need to protect national sovereignty translates in both formal and physical responses. It then moves on to analyzing the way migration, as a potential response to the loss of national territory caused by sea-level rise, is perceived by many Tuvaluans as a last-resort measure and as a matter of personal choice. In particular, most Tuvaluans refute the narrative often imposed on islanders as the

"first climate refugees" and reaffirm their agency in avoiding this outcome. This general attitude is rooted in a strong sense of place which characterizes Tuvalu's culture. The section concludes by focusing on a second set of ideas which is explored in this book – causal knowledge – and the way it informs policy development on loss and damage.

3.6.1 Climate Change as an "Existential Threat"

Climate change has repeatedly been framed as an existential threat for Tuvalu (Government of Tuvalu 2015a). The protection of the country's sovereignty is a key concern within national climate policies and initiatives – including those related or connected to loss and damage. The government has attempted to maintain national sovereignty in two ways. First, it has been pursued formally by "climate-proofing" the EEZ in the context of the UNCLOS negotiations, as discussed in Section 3.4. The protection of the EEZ has been framed as an issue of security and national sovereignty since 2012 within Te Kaniva, which stressed the importance of securing the national EEZ "as belonging to the Government and People of Tuvalu regardless of any loss of coastal areas or islands due to impacts of climate change such as sea-level rise" (Government of Tuvalu 2012a).

Second, the maintenance of national sovereignty has been pursued physically through land reclamation initiatives. The government received USD 36 million from the Green Climate Fund (GCF) and invested USD 2.9 million in co-financing, to carry out the Tuvalu Coastal Adaptation Project, which aims at improving coastal protection on the islands of Funafuti, Nanumea, and Nanumaga (Figure 3.1). The proposal submitted to the GCF explicitly mentions the "existential threat" posed by climate change and the need to maintain "the sovereignty of Tuvalu" as key motivations for the project and stresses how "a nation-wide relocation is not considered an official solution to climate change" (Government of Tuvalu 2016a). The project was publicly defined by Prime Minister Sopoaga as "the pride of Tuvalu" (UNDP 2017). The importance of the project for the government is also brought up by an interviewee: "This is the biggest project for Tuvalu, and there's a lot influence from government. There's always pressure from them in approaching that, especially the implementation. Sometimes, it's hard to manage those expectations …. The prime minister is actually the board chairman. That's how important this project is for Tuvalu" (Interview 5).

3.6.2 A Sense of Place: Climate-Related Migration and Displacement

As the analysis of the policy landscape shows, climate mobility is an important aspect of the loss and damage agenda in Tuvalu. Yet in contrast to some public and scientific narratives that see islanders as future "climate refugees," Tuvaluans proudly claim that they do not want to leave the country (Farbotko & Lazrus 2012), as also displayed in Figure 3.2. As one research participant

FIGURE 3.2 Billboard in Funafuti on climate displacement (August 2019). Photograph by Elisa Calliari

articulated: "When we talk about climate change it's really hard for us to tell our feelings, but for me personally, I just don't want to move out of Tuvalu. Even that I'm working on climate change, also as a climate fighter, but still I don't agree to migrate or move out of Tuvalu" (Interview 4). Migration is seen as a last-resort measure and framed as a matter of personal choice: The view is that if people opted to migrate, then they should be protected by regional/international frameworks, which is different from being framed as refugees. An officer at the DCCD explained: "Migration is our last resort. … The government doesn't want the people to migrate as refugees. So they want to have a regional policy. Personally, I think that migration should be a personal option and we should not be framed as refugees. … If people in small island states opt to migrate, then we need to be protected" (Interview 1). This particular way of understanding climate-induced migration is rooted in a strong sense of place in Tuvalu's culture, which is characterized by an emotional connectedness, attachment, and identity formed from their interaction with their location (Corlew 2012). As Minister Kofe highlighted in his speech at COP26: "In Tuvalu, our islands are sacred to us. They contain the mana [supernatural force or power] of our people. They were the home of our ancestors. They are the home of our people today and we want them to remain the home of our people into the future" (Government of Tuvalu 2021b).

3.6.3 Use of Science and Evidence

Research participants from the CCD highlighted two related challenges in producing knowledge around loss and damage that can then be used for policymaking: (a) difficulties in conceptually distinguishing loss and damage from adaptation and (b) the availability of comprehensive assessment tools. Talking about the loss and damage to vegetation caused by Cyclone Pam, a research participant recalled: "The World Bank came in and I think ADB [Asian Development Bank] also came in and did those assessments. So there are figures that have been put in place into that, but to distinguish where adaptation stops and loss and damage kicked in it, it's something that's very difficult to do" (Interview 12).

The interviewee continued by pointing to shortcomings in current modeling tools and the role the WIM can play in identifying appropriate methods that countries can use. The stakeholder also pointed to the regional universities and the ways in which they could fill relevant knowledge gaps through case studies:

> The actual assessments for loss and damage is something that we are still in the process of identifying how best to do this because assessing losses for SOE [slow onset event], it's something very difficult to do, especially with the data that we have and also the models that we have. Part of the work that the WIM is currently doing is to look at the different comprehensive risk management methodologies and tools that could speak towards loss and damage that countries can be using. … Work that we are doing as part of the region is to look at the university, the USP, the University of the South Pacific, to come up with some case studies that will help. And I think they have done two case studies already. (Interview 12)

Given these challenges, evidence around loss and damage remains scarce and this was reported to be one of the reasons why it was decided not to include loss and damage in the NAP (Interview 11).

3.7 CONCLUSION

This chapter has focused on Tuvalu as a "most likely case" for engagement with loss and damage policymaking at the national level, given its vulnerability to climate hazards, its engagement with key negotiating groups within the UNFCCC process, and its involvement in the implementation of the WIM ExCom's work. As such, it provides an opportunity to better understand the way loss and damage as the conceptualization of a governance problem originating in the global climate regime is translated into national processes (Roberts & Pelling 2018).

Table 3.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. A key finding from the analysis is that loss and damage does not feature as a standalone policy domain nor is it explicitly distinguished from adaptation, but it is rather treated as a cross-cutting issue. The case of Tuvalu highlights that

TABLE 3.1 *Summary of Tuvalu*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Sea-level rise • Saltwater intrusion • Coastal erosion • Flooding and inundation • Increasing temperatures • Irregular rainfall • Increasingly intense tropical cyclones • Ocean acidification	• Series of policy documents referencing loss and damage (mentioned since 2012) • First climate change policy (Te Kaniva 2012–2021) • National Strategic Action Plan for Climate Change and Disaster Risk Management (2012–2016) • 2015 National Labour Migration Policy • Eighth National Development Plan (Te Kakeega III 2016 – 2020) ○ Loss and damage features as strategic stream which rests on several milestones up to 2020 including: (a) identifying options for risk transfer and insurance mechanism; (b) establishing and implementing Survival Plan for Tuvalu,	• UNFCCC (through AOSIS and LDC) • UNCLOS • UNGA • ILO • Regional developments (e.g., PIF, FFA, SPC) • Litigation • Funding from the EU (e.g., Pacific Climate Change and Migration Project) • At COP26, Tuvalu and Antigua and Barbuda agreed to establish the COSIS	• Loss and damage does not feature as stand-alone policy domain nor is it explicitly distinguished from adaptation, but is rather treated as a cross-cutting issue (e.g., through NACCC) • From Tuvalu's perspective, loss and damage requires responses not only at national level but also at regional and international scales (multi-scalar governance) • Four policy areas in which loss and damage is consistently invoked: climate-induced human mobility, infrastructure investment, sovereignty and protection of Tuvalu's EEZ	• Tuvalu represents a "most likely case" for engagement with national loss and damage policymaking: It already faces significant losses and damages and has been heavily engaged with global policy development on loss and damage • Loss and damage in Tuvalu is seen along a continuum with adaptation and as an issue to be dealt with through CRM approaches • Tuvalu is developing a complex governance system with competencies and agency spanning across multiple scales of governance • Ideas like sovereignty are framed by local actors not only in their physical dimension (authority over a territory) but also in more intangible ways (maritime boundaries as identified irrespective of the impacts of climate change on shorelines)

addressing climate-induced migration; and (c) solidifying the concept of loss and damage in national law by amending relevant legislation • TISIP • Climate Change Resilience Act (2019, gave loss and damage legal foundation) • NAP (announced as completed in 2023 but not available at the time of writing) • National Climate Change Policy, Te Vaka Fenua o Tuvalu (2021 – 2030)		• Insurance and risk transfer feature as a specific set of measures invoked for acting on loss and damage • Extreme events like Cyclone Pam (2015) seem to prompt shift within the existing institutional arrangement: e.g., adjusting the focus and mandate of the Climate Change Department and driving the emergence of new bodies, such as the TSF (2016)	• The Tuvaluan "sense of place" informs the way people in Tuvalu frame migration in the context of climate change • Tuvaluans refute narrative often imposed to islanders as first climate refugees and reaffirm their agency and willingness to be masters of their own destiny • Evidence matters: two related challenges in producing knowledge around loss and damage for policymaking: (a) difficulties in conceptually distinguishing loss and damage from adaptation and (b) availability of comprehensive assessment tools

the conceptual separation between adaptation and loss and damage, which is pursued by some actors within climate negotiations, does not necessarily translate into national practices. Loss and damage in Tuvalu is instead seen along a continuum with adaptation and as an issue to be dealt with through CRM approaches. Indeed, relevant loss and damage measures are explicitly included in adaptation, disaster risk reduction, and sustainable development policies.

There are four areas in which the concept of loss and damage is consistently invoked: infrastructure investment, climate-induced human mobility, sovereignty and protection of the country's EEZ. The area of infrastructure investment suggests a physical and monetary understanding of loss and damage, framed as the negative impacts to buildings, coastlines, and assets. The latter two, instead, refer to those adverse impacts of climate change which are difficult or impossible to quantify or monetize and which are called noneconomic losses in the lingo of the UNFCCC (Serdeczny et al. 2018). These policy areas, that is, human mobility and loss of sovereignty, show the crucial role that ideas play in shaping the way national policy actors frame the problem of loss and damage and its possible solutions. Similar to findings from previous studies (Farbotko & Lazrus 2012), Tuvaluans refute narratives depicting them as future "climate refugees," express their desire to remain in their islands, and see climate-induced mobility as a matter of personal choice. On the protection of the EEZ, the government seeks to preserve current maritime borders regardless of any loss of coastal areas and thus teases out the concept of sovereignty from that which focuses exclusive on control over a physical territory.

Responses to loss and damage involve actions beyond the national level – including the regional scale and international venues other than the UNFCCC. For instance, Tuvalu has been leading the endeavors of Smaller Island States to develop the Pacific insurance scheme (in competition with the PCRAFI); it has attempted to develop a system of legal protection within the UN to deal with the issue of climate-induced migration; and it is campaigning for the protection of the EEZ within the UNCLOS. Loss and damage is emerging in Tuvalu as a complex governance system, with competencies and agency distributed across a variety of actors operating at multiple governance scales.

The CCD plays a key role in loss and damage policymaking in Tuvalu. Yet, other national actors stand out as important in developing and enacting loss and damage-relevant policies. These include, for example, the Ministry of Environment, Foreign Affairs, Labour and Trade, which is responsible for delivering the National Labour Migration Policy; the Ministry of Public Utilities and the Ministry of Economic Development in the field of infrastructure; and the Ministry of Works and Natural Resources with responsibility for EEZ issues. Loss and damage does not yet seem to play a significant role in discussions within civil society organizations or NGOs, probably due to the fact that it is a relatively new concept in the national landscape. Future research might draw attention to a diverse set of actors that can be influential in national approaches to loss and damage policymaking, both at the government level and beyond.

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4

Knowledge Politics on the Frontlines

The Problem of Acknowledging Loss and Damage in Antigua and Barbuda

Lisa Vanhala and Michai Robertson

4.1 INTRODUCTION

Of all the projected climate impacts that will shape Antigua and Barbuda's future – more frequent droughts, hotter temperatures, and sea-level rise to name a few – higher-intensity hurricanes have had the biggest influence on national policy. In 2017, the hurricane season saw more than 90 percent of the Island of Barbuda's buildings destroyed or badly damaged. This event marked a critical juncture in policymakers' thinking about disaster preparedness and responses to climate change impacts. The country has begun building resilience in key economic sectors, climate-proofing infrastructure, and establishing innovative risk financing solutions for climate-vulnerable economic sectors to minimize the impacts of climate change on the most vulnerable communities and groups.

This chapter traces the role of national institutions in shaping loss and damage policies in Antigua and Barbuda, focusing specifically on how knowledge and ideas affect policymakers' awareness of the impacts of climate change.[1] In doing so, it reveals the knowledge politics that play out between different institutions and levels of governance in the country. It argues that there are conflicting incentives for deepening the understanding of loss and damage in Antigua and Barbuda. On the one hand, the country might benefit from international funding through the Green Climate Fund (GCF), the Adaptation Fund, and, potentially in the future, the proposed loss and damage fund which Antigua and Barbuda played a critical role in establishing at the twenty-seventh Conference of the Parties (COP27) in Sharm el Sheikh. On the other hand, if

[1] This chapter draws on a previously published article: Vanhala, L., Robertson, M., & Calliari, E. (2021). The knowledge politics of climate change loss and damage across scales of governance. *Environmental Politics*, 30(1–2), 141–160.

the country releases too much data on its vulnerability to climate change, it becomes seen as an investment risk and undermines its own national economic interests. In this way, the chapter shows how enhancing knowledge around climate risks and loss and damage does not necessarily benefit the most vulnerable countries and often only perpetuates existing power structures.

The chapter complements recent work in critical disaster studies scholarship (Kelman 2020; Pelling & Dill 2010; Wisner et al. 2012), particularly the work of scholars who have identified the path dependencies associated with colonial structures and vulnerability to climate change impacts. There have been practices of governing the land in common in Barbuda since emancipation from slavery in 1834. Following the 2017 hurricane season, the government sought to reform the communal land rights system, claiming that freehold tenure would allow Barbudans to secure bank loans to rebuild their houses. However, many Barbudans resisted this move as a form of neoliberalism: This would also allow for foreign investment in the development of private resorts on what has generally been a relatively undeveloped island. Some observers have referred to this as an example of "disaster capitalism" (Gould & Lewis 2018). Look et al. (2019) argue that the modern practices of disaster risk reduction (DRR) tend to view commonhold land tenure, a long-existing practice on the island of Barbuda, as increasing the vulnerability of communities to disaster because of the financial ambiguity it creates in disaster recovery (in contrast to freehold land tenure where the private property owner is responsible for damages). While this chapter does not delve into Antigua and Barbuda's cultural and political past in detail, we recognize that it contributes to vulnerability to climate change impacts and the government's ability to respond to these impacts.

The analysis in this chapter is based on multiple sources of data: twelve semi-structured interviews with national and international policy actors, civil servants, and nongovernmental organizations (NGOs) in Antigua and Barbuda, which were conducted in April 2019; analysis of legislation and policy and media coverage; and participant observation of the parliamentary select committee hearing scrutinizing the Environmental Protection and Management Bill 2019. It also draws on one of the co-author's involvement in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations as a member of Antigua and Barbuda's delegation, which led the Alliance of Small Island States (AOSIS) at COP27.

4.2 NATIONAL CIRCUMSTANCES

Antigua and Barbuda is one of the Small Island Developing States (SIDS). It is composed of two islands that are vulnerable to multiple adverse effects of climate change and related economic and noneconomic loss and damage. Located in the Caribbean Sea, Antigua and Barbuda is already experiencing impacts from coastal erosion, extreme weather events, and extended drought. In 2017,

the country experienced two unprecedented category five hurricanes (Irma and Maria) which left the island of Barbuda devastated. Antigua and Barbuda also experienced a three-year meteorological drought from 2012 to 2015 (the second extended drought in fifteen years), costing the Public Utility Authority millions of dollars and requiring emergency investment in reverse osmosis plants.

As the climate changes, the extent of such impacts will increase. Downscaled climate projections for Antigua and Barbuda include: an estimated 30–50 percent less rainfall in 2090 with respect to late twentieth-century rainfall norms; increased rainfall intensity leading to greater risks of flash flooding and extreme rainfall impacts; increased average ambient temperature of three to five degrees Celsius by the end of the century; and increased sea surface temperatures (Green Climate Fund 2022). Hurricane intensity is expected to increase by 18 percent for category four and five hurricanes over the intensity observed over the past thirty years for Antigua and Barbuda (Government of Antigua and Barbuda 2022). Estimates indicate that the island of Antigua could experience a tropical cyclone passing within 120 miles every one to two years and suffer a close or direct hit by a storm every six to seven years (Green Climate Fund 2022).

Antigua and Barbuda has an annual gross domestic product (GDP) of USD 1.4 billion, and tourism represents the largest economic sector. This makes the country particularly vulnerable to the impacts of climate variability and change, given the exposure of key coastal infrastructure and resources. Studies have estimated that 10 percent of the major tourism properties, 2 percent of road networks, and 100 percent of seaports in Antigua and Barbuda are at risk from a one-meter sea-level rise (Green Climate Fund 2022, p. 7). Sea-level rise and coastal erosion could cost Antigua and Barbuda's economy about 62 percent and 209 percent of GDP in 2080 for mid-range sea-level rise and high sea-level rise scenarios respectively (Simpson et al. 2012). Given the gravity of these projections and recent experiences with extreme weather events, policymakers in Antigua and Barbuda are beginning to grapple with what loss and damage policymaking will mean.

4.3 POLICY LANDSCAPE

Governance of loss and damage-related issues is undertaken across a wide range of government ministries in Antigua and Barbuda, and policy development falls under different legislative frameworks and international legal instruments. The country's Disaster Management Act, which became law in 2002, was the first piece of legislation to create an overarching system to prepare for, mitigate, respond to, and recover from natural and manmade disasters in Antigua and Barbuda. In 2019, Antigua and Barbuda became one of the few countries to create legislation that specifically refers to "climate change loss and damage": The Environmental Protection and Management Act is the country's flagship legislation on matters relating to the protection and management of the environment, which includes addressing climate change (Government of Antigua and Barbuda 2019).

In terms of the national response to loss and damage, one of the main additions to the 2019 Act was its financing mechanism, the Sustainable Island Resources Framework Fund. It is clearly stated that the fund (to be resourced from domestic and international sources of finance) will, inter alia, "support programmes and measures for … climate change loss and damage" (Government of Antigua and Barbuda 2019, p. 75). This explicit mention of loss and damage is partly a reflection of the timing of the adoption of the 2019 Act, which coincided with Antigua and Barbuda's active participation and leadership in recent international legal processes on climate change. It is also partly the result of recent experiences of the increased intensity and devastation caused by the 2017 hurricane season.

Much of Antigua and Barbuda's planning and communications around climate change has been guided by the UNFCCC. Three examples are key. First, in its 2015 Intended Nationally Determined Contribution, put out in the run-up to the Paris negotiations, Antigua and Barbuda's government outlined specific adaptation targets and actions and included measures that could be seen as part of a response to loss and damage (Government of Antigua and Barbuda 2015b). In the section outlining the accompanying information on adaptation actions, the government emphasizes that "physical adaptation measures will not always be enough to prevent significant loss and damage to the infrastructure and economy of Antigua and Barbuda." It also discusses the loss and damage experienced from hurricanes, droughts, and sea-level rise. As one of its conditional targets, the government states that it provides for "an affordable insurance scheme" for farmers, fishermen, and residential and business owners to minimize and address loss and damage associated with these climate change-induced events by 2030.

Although the government notes that these targets are "contingent upon Antigua and Barbuda receiving international support," it has begun to make headway on its objectives by establishing the Sustainable Island Resources Framework Fund. The country also updated its Nationally Determined Contribution in 2022 and furthered its policies on loss and damage (Government of Antigua and Barbuda 2021). The government thus not only reaffirmed the 2016 targets but also devoted an entire section to loss and damage response. Among other things, it provides clarity that such a response is aimed at "addressing the actual harm associated with the adverse effects of climate change, including extreme weather events and slow onset events" (Government of Antigua and Barbuda 2021, p. 28) Moreover, the government states that there are "large amounts" of money being spent on such responses domestically by both the public and private actors (Government of Antigua and Barbuda 2021, p. 29).

Second, in 2017 the UNFCCC's GCF approved a Readiness and Preparatory Support Project for the government to develop a National Adaptation Plan (NAP), which is in development at the time of writing. One of the components of the project focuses on compiling and analyzing key climate data, which

includes the data on the loss and damage experienced after extreme weather events such as hurricanes and drought, as well as the progression and adverse effects of slow onset events (SOEs) such as sea-level rise. The aim is to create risk models using downscaled climate projections and socioeconomic data. These models, in combination with the data from Antigua and Barbuda's geographic information system, would create an illustrative climate change risk and vulnerability map of the country. This map would consequently inform the country's adaptation planning process and proposed actions. Antigua and Barbuda's NAP has included the development of the country's first Adaptation Communication, which was submitted in 2022 to the UNFCCC as part of the reporting requirements under the Paris Agreement and its Enhanced Transparency Framework. It captures information on the key climatic drivers and their impacts on the country, national adaptation responses (both existing and planned responses), and the needs and challenges still to be addressed.

Third, in 2020 under the UNFCCC's Needs-Based Finance Project, the government produced a report that provided an assessment and overview of Antigua and Barbuda's public and private finance flows relevant to climate change (Watson et al. 2020, pp. 26, 27, 29–34). This report focuses on, among other things, identifying climate-related finance within budget spending and international climate finance receipts from 2014 to 2017. Through this report, the government articulated an initial assessment methodology which includes a definition of loss and damage response finance under the broader umbrella of climate finance. It defines finance as "that which addresses the actual harm associated with the adverse effects of climate change, including extreme weather events and slow onset events" (Watson et al. 2020, p. 27). The government proposes an initial methodological approach for quantifying public spending on loss and damage, with noted limitations in relation to applicability on tracking the cost of responding to loss and damage from SOEs and noneconomic loss. That said, this approach correlates "the occurrence of climate change related events (such as hurricanes and severe droughts) during the reporting year of the actual expenditures to determine the main recovery and rehabilitation costs of such loss and damage" (Watson et al. 2020, p. 33).

The UNFCCC is not the only international influence on loss and damage-relevant policymaking in Antigua and Barbuda. In 2016, the government prepared its Country Document for Disaster Risk Reduction to analyze the status of DRR in Antigua and Barbuda in the context of the then recently adopted Sendai Framework for Disaster Risk Reduction (O'Marde 2017). In fulfilling its obligations under the United Nations Convention to Combat Desertification, in 2015 the government published its NAP, which focused on combatting desertification, land degradation, and drought (Government of Antigua and Barbuda 2015a). That year the government also published its Medium-Term Development Strategy 2016–2020 to address the sustainable development goals, including considerations of climate change principles (Government of Antigua and Barbuda 2015c). One of the four dimensions

in the strategy for 2020 includes action on "disaster risk management and climate change resilience," which strives to minimize the economic toll that disasters take on the economy by reducing adverse direct and indirect impacts. In this way it attempts to facilitate more efficient recovery and generally reduce the diversion of resources that would have otherwise advanced economic development.

4.4 INTERNATIONAL ENGAGEMENT

Awareness of loss and damage and related issues has trickled down from different international and regional regimes. The international institutions and regimes that were mentioned most frequently in interviews included the World Bank and the United Nations Development Programme (which together with the EU had played a role in the immediate aftermath of Hurricanes Irma and Maria in 2017). The Sendai Framework was also invoked by a number of interviewees from across government departments. The UNFCCC was mentioned less frequently by interviewees and mainly by those in the Department of Environment (DoE). Every interviewee mentioned regional institutions including the Caribbean Development Bank (CDB), Caribbean Community (CARICOM), the Caribbean Disaster Emergency Management Agency (CDEMA), and the Caribbean Catastrophe Risk Insurance Facility (CCRIF).

4.4.1 Differing Definitions of Loss and Damage

Interview data shows the central but slow-moving process by which international policies have influenced thinking about loss and damage at the national level in Antigua and Barbuda. An interviewee at the National Office of Disaster Services (NODS) noted that climate change was nothing new in terms of the way the disaster risk management (DRM) community did their work:

> We have been incorporating climate change impacts in our work from time immemorial – before it was more commonly known as climate change. So what we notice now is that the climate change community has now started to adopt certain things under disaster management. So they're now looking at climate risk management, etc. … So it's heartening to see that they're coming aboard and understanding that climate change is part of a bigger picture. (Interview 5)

But the interviewee also noted frustration with the ways in which the DRM and climate change communities at the international level speak past one another: "We still have a lot of back and forth right now internationally because the long-established definition of what loss and damage is in disaster risk management [is different from the idea of] … climate change loss and damage. And they're different" (Interview 5). When asked about where the interviewee had encountered this ambiguity about what loss and damage is, they noted that the lack of definition was a widespread issue: "You encounter it at a national level,

regional level, international level, etc. and so on. I mean, when you ask them 'What's the clear definition of loss and damage in terms of climate change?' … the discussion goes round and round" (Interview 5). The interviewee went on to suggest that there is a general lack of coordination between international entities, which means time is often wasted at the national level:

> Sometimes the communication level between entities at the international level is not necessarily the best. They [the UNFCCC and DRR community] are doing particular initiatives and it doesn't seem to happen in a coordinated manner. So when you at the national level now have to be dealing with different conventions that are asking you to report on similar things and a lot of duplication of effort, it becomes frustrating. (Interview 5)

One strength of the way in which DRM work happens according to the interviewee was the coordination among frameworks of indicators at the international, regional, and national levels with national programs being linked to the CDEMA program, which is then linked to the Sendai Framework. The interviewee said, "Our work programs help to actually fulfil those [monitoring] requirements. The other agencies and sectors don't necessarily have the established linkages between their regional and international frameworks" (Interview 5).

4.4.2 Climate Finance at the International Level

Through its UNFCCC delegation and technical experts, Antigua and Barbuda's government has been involved in clarifying whether the existing climate finance architecture, especially under the UNFCCC, currently incorporates a loss and damage response. There have been attempts to determine how such an incorporation of loss and damage might allow for the channeling of new, additional, adequate, and predictable funding, and Antigua and Barbuda played a pivotal role in the agreement to establish a loss and damage fund at COP27. The government is participating in this process primarily in two venues: at the COP and its subsidiary bodies' sessions and through the AOSIS negotiation bloc in which it is the lead on climate finance. National experts also serve as representatives on the GCF board and UNFCCC's Standing Committee on Finance. In all these venues, Antigua and Barbuda's delegation is primarily composed of representatives from the DoE (which serves as the office of the UNFCCC's national focal point) and supplemented by individuals from the Ministry of Finance, Corporate Governance and Public Private Partnerships, Ministry of Foreign Affairs, and the Office of the Attorney General.

For international negotiations, AOSIS plays a central role in advocating for solutions to address loss and damage that date back to its inception. In recent years, there have been attempts to push for reforms of the existing climate finance architecture, specifically in the GCF. In 2019, AOSIS made a submission on draft guidance to the GCF with a number of loss and damage reforms

that included requesting the board to establish a loss and damage "Emergency Response Window" and to incorporate the addressing of loss and damage in the GCF's updated strategic plan as part of its core vision and as one of its strategic directions (Alliance of Small Island States 2019). This proposal was watered down by developed countries in the final decision to only invite the board to "continue providing" finance "for activities relevant to averting, minimizing and addressing" climate change impacts more broadly within the existing business model and structure of the GCF (i.e., no institutional reforms). The decision also invited the GCF board to "facilitate efficient access" to such resources and to take account of the Warsaw International Mechanism's strategic workstream on "enhanced action and support."

In light of the pushback on these reforms, Antigua and Barbuda, in its capacity as AOSIS chair, strategized and implemented a concerted effort to include loss and damage in the UNFCCC finance mechanism, beginning at COP26 in Glasgow. AOSIS, together with the Group of 77 and China (G77 & China), focused on "concrete outcomes on financial support for loss and damage," including the delivery of a "firm mechanism" (Alliance of Small Island States 2021c). This effort manifested itself in a G77 & China position for a decision to establish the loss and damage finance facility designated as an operating entity of the UNFCCC's financial mechanism and a process to operationalize the facility by COP27 in Sharm El Sheikh (Alliance of Small Island States 2021a). There was, however, further pushback on this proposal. The COP26 presidency in lieu of an agreement on a facility provided a text for the establishment of a three-year dialogue "to discuss the arrangements for the funding of activities to avert, minimize and address loss and damage" (UNFCCC 2021). In the COP26 closing plenary, the AOSIS chair reluctantly joined consensus and stated:

> We [AOSIS] firmly believe that the dialogue should lead to a conclusion that a new Loss and Damage Finance Facility will be adopted at the next COP [i.e., COP27]. This is the basis on which we understand the decision before us. (Alliance of Small Island States 2021b)

At the June 2022 session of the UNFCCC subsidiary bodies, Antigua and Barbuda, as AOSIS chair, engaged in the first Glasgow Dialogue on behalf of its membership and highlighted apparent gaps in funding arrangements for loss and damage, especially under the UNFCCC. AOSIS also began a concentrated program of work with G77 & China that included a concrete proposal for a new, fit-for-purpose multilateral fund under the UNFCCC aimed at addressing loss and damage and the introduction of an item on the COP27 agenda to provide a space for the discussion of this and other proposals (Alliance of Small Island States 2022a, 2022b; UNFCCC 2022b). This work culminated in an agreement at COP27 to establish new funding arrangements which include "a fund for responding to loss and damage whose mandate includes a focus on addressing loss and damage" (UNFCCC 2022a). A member of the Antigua and

Barbuda delegation has also sat on the Transitional Committee, established to further develop the operationalization of the financial arrangements and fund on loss and damage.

4.4.3 Commission of Small Island Developing States on Climate Change and International Law

Given the slow pace of progress on loss and damage within the UNFCCC, Antigua and Barbuda and other SIDS have explored options using other international legal frameworks. At the beginning of COP26 in Glasgow in November 2021, the prime minister of Antigua and Barbuda, Gaston Browne, and the prime minister of Tuvalu, Kausea Natano, announced the signing of an agreement to establish the Commission of Small Island Developing States on Climate Change and International Law (Freestone et al. 2022). Some saw the move as a strategy to send a message to COP26 that more needed to be done and to raise the UNFCCC's ambition to do more. The founding members signaled that they would request an advisory opinion from the International Tribunal for the Law of the Sea (ITLOS) concerning sea-level rise, protection of the marine environment, and international responsibilities (Tanaka 2022).

4.5 INSTITUTIONS

Interviewees described a number of examples of loss and damage ranging from those at the macro-level (e.g., loss of GDP after a storm, stranded assets) to the micro-level (e.g., loss of fishing traps as a result of hurricanes), suggesting high levels of awareness across institutions. Moreover, interviewees discussed a wide range of types of losses and showed familiarity with the distinction between economic and noneconomic losses. For example, one interviewee from the Fisheries Division described the effects of storms for the sector that they work in: the loss of equipment for fishers; the loss of fishing infrastructure, such as docks and access to clean water; the "downtime" for fishers in the period after a storm while their equipment is being replaced or repaired; and the damage to or loss of coral reefs and marine life (Interview 3). Several interviewees also touched on the foregone development opportunities associated with having to deal with the adverse effects of climate change:

> So when we talk about climate change loss and damages now, they're looking at things in terms of the loss and damage over the long term and loss of ecological services, how you quantify those and so on. And then you come into the whole argument of quality measurement versus quantity measurements and how do you do your green accounting for loss of services from climate change things and so on, and loss of investment now that you're investing into mitigation to protect other productive sectors. (Interview 5)

An interviewee from the DoE also noted the challenge of operationalizing loss and damage governance and practices: "What does the loss and damage project look like? When do you say 'This is a loss and damage project' … a transition from an adaptation project to … 'okay, this is loss'? When do you have the funeral party, and the eulogy, and so on? When do you have that? And nationally, we need to have that conversation" (Interview 2). This highlights the ambiguity around loss and damage and the problem of trying to translate an abstract concept developed at the international level to practical technical solutions that grapple with loss on the ground and across sectors.

Different departments also had different incentives for engaging with adaptation and loss and damage projects. For example, the MoF had recently incorporated a focus on climate finance and was involved in the development of GCF adaptation proposals as a source of funding: "We recognize that with Antigua not being eligible for development assistance on account of our high-income status we have to pay attention to alternative sources of financing. And climate financing is one of those things that, within the Ministry of Finance, we have decided we need to pay close attention to" (Interview 1). Interviewees in the MoF highlighted that they were very aware of the adverse effects of climate change and the current and forthcoming costs for the country of managing climate risks and resulting loss and damage. While several interviewees spoke about the role of the CCRIF favorably as a source of finance after extreme weather events, there was also a growing sense that other forms of climate finance might be necessary. The aforementioned quote also alludes to the politics behind the official development aid metrics which are seen by some stakeholders as further disadvantaging a country like Antigua and Barbuda by excluding them from official development finance.

4.5.1 Investing in Resilience across Institutions

One area of close overlap between conceptions of loss and damage at the international level and the way interviewees discussed core national economic interests concerned the idea of climate change resilience. The term "resilience" has come to prominence in climate change discourse in the last two decades. It refers to the capacity of a system to absorb disturbances and still retain the same structure and function, while maintaining options to develop (IPCC 2012). Interviewees identified multiple forms of climate resilience across the range of sectors we covered. They acknowledged growing recognition across government of the need for climate change-resilient infrastructure and an economy that is resilient after extreme weather events. They also noted the investment that building this resilience requires: "We recognize that from the Ministry of Finance perspective, we can't invest [USD] 100 million in an asset that's going to be destroyed the next day if we get a hurricane or very heavy rains. It needs to be built in such a way that the investment is protected, and there's a cost to protecting that investment" (Interview 1). An interviewee from

the NODS looked at this from a DRR perspective: "Most people look at disaster management as a response, but disaster management is more of a developmental issue. As such, you have to look now at the way we actually invest in it, not more as an expenditure but more so as an investment" (Interview 5). Some interviewees noted the challenges to procurement processes and the additional investment required upfront to deliver climate change-resilient infrastructure. One particular example was discussed by a number of interviewees: the government's Road Infrastructure Rehabilitation project. Funded by the UK Caribbean Infrastructure Fund under the CDB, the goal of the project was to cover the incremental cost of adaptation along a number of main roads. The design took into account the projected rainfall extremes for the island as well as the environmental, social, gender, and disability safeguards and access requirements, including adequate sidewalks and space for public transportation. An interviewee noted as part of the contracting process that the government was, at the time of the interview, asking for quotes for both the business-as-usual version of infrastructure and climate-resilient models. They mention that cost is the main barrier to building more climate-resilient roads: "We have to build in some 'resilience' in the rules [regarding contracting for the building of roads] … Obviously, if we want to protect the investment, then it's best to do it, but it's just the cost would prohibit us from doing what everybody says: 'Build back better'" (Interview 1). Civil servants were also turning their attention to the resilience of other systems. For example, an interviewee from the MoF noted an increased focus on what is needed to promote resilience within the economy after an extreme weather event: "[Hurricane Irma] affected us fiscally significantly. It affected us fiscally, because September is generally a revenue slow month, and then it just ground to a halt … What's priority for us now is looking at those things that we need to fix, so that the economy can get going as soon as [possible] after a disaster like this" (Interview 1). Another interviewee from the MoF noted that there was a Canadian-funded World Bank and Global Facility for Disaster Reduction and Recovery project underway at the time of the interview to improve the resilience of public financial management systems in the aftermath of a storm. Finally, one interviewee from the Fisheries Division noted that they try to incorporate resilience into everything they do but also noted that "fisherfolks typically are very adaptive, very resilient … they tend to have the issue of occupational plurality and that has made them very resilient" (Interview 7).

4.6 IDEAS

Different types of knowledge and ideas were highlighted across the interviews as being important in the loss and damage context. This section focuses on three: (a) public sector data; (b) local knowledge; and (c) experiential knowledge. The first type of knowledge that policymakers said they use is data collected through existing or planned projects in the public sector or in collaboration

with NGOs. This included, for example, environmental data gathered by the DoE, hydro-meteorological data gathered by the Met Office, or data on wildlife species collected by the Environmental Awareness Group and their partner NGOs (Interviews 2, 9, 10).

Some departments signaled an awareness of the need for quality data about loss and damage. An example of a department that relies heavily on data-gathering and analysis was the NODS. An interviewee noted that "we work through all arms of the states. We also rely heavily on the technical expertise of the various government agencies as well as NGOs" (Interview 5). NODS actors also rely on both systematic data-gathering through public sector bodies and local knowledge (discussed later). Interviewees from the MoF also highlighted their reliance on data: For example, the ministry was at the time of the interview considering subscribing to the CCRIF's excess rainfall policy based on information provided by the government's climatologist (Interview 4). One interviewee at the DoE noted the advantages of having a strong evidence base: "I think it's really important to have scientific rigor for economic analysis, financial decision-making, health reasons, like the basic things. So I love this work because it's so science-based. And in this world of politics and intimidation, you know, you cannot beat science" (Interview 2). The interviews also identified important connections between the collection of national-level data and the debates about loss and damage in the UNFCCC. For example, one interviewee involved at both the international level and the national level noted the way in which collecting data could help advance the issue at the international level: "We're at a stalemate [at the international level]. We've run out of things to talk about for loss and damage. We need to start to know, show the data … We need to start saying 'This is as scary as we think,' or 'It's as scary as we think, but hey now, we have to get it done'" (Interview 2). A second form of data on loss and damage that was relied on across government departments is local knowledge. The climate change adaptation literature suggests that local knowledge may contribute to adaptation to climate change in a number of ways (Naess 2013). Our research shows this may also be true for loss and damage. For example, in the Fisheries Division there were established channels of communication between fishers and the division (Interviews 3 and 7). It is also clear that sometimes local knowledge acts as a supplement when more systematic data collection is not possible or sustainable. An interviewee working in NODS noted the complementarity of the different forms of data they gathered, saying that NODS had established a system that had been institutionalized to allow local knowledge to feed into planning:

> The district disaster committee volunteer system is a very crucial component because these volunteers … they have been trained in different aspects of disaster management and they are actually in the communities. They actually monitor things and report back. So when they notice certain issues, they also provide feedback for us. So we're getting information not only from assessments being done and work being done by the

public sector but also persons living in communities who notice certain issues. They flag certain things, whether it be flooding issues, land degradation, improper building … anything like that, general concerns that come up. (Interview 5)

Interviewees at the Fisheries Division, the Department of Marine Services and Merchant Shipping, and the DoE also noted their reliance on forms of local knowledge and anecdotal data collection when systematic data was not available (Interviews 6, 7, 11).

A third type of knowledge that several interviewees implicitly identified can be classified as experiential. Experiential learning theory defines learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb 1984). Interviewees identified a growing awareness among politicians and policymakers about the need to understand and address extreme weather events, especially hurricanes, since the country's and region's experiences of the storms of 2017. For example, one interviewee spoke positively about a project about data-gathering for more precise risk assessments:

INTERVIEWEE: So we're on our way to being prepared [for when international financial institutions ask for risk assessments]. And I have to say that the government has been very supportive in having really good technical people to collect the data. And we're spending money to … Three million dollars just on the data collection, and economic data collection exercises … But they were willing to pay.

INTERVIEWER: It feels like that's shifted, that willingness. Do you think that's right? What do you think has changed the politician's minds on that?

INTERVIEWEE: Well, hurricanes have helped a lot. (Interview 2)

Another interviewee also noted that the experience of the 2017 storms has made policymakers more receptive to information about disasters and climate change: "It has somewhat gotten better because now for many years we've been warning them [politicians] about certain things. They didn't believe us. After 2017, I believe we have quite a few more people that are willing to listen now" (Interview 5).

4.6.1 Knowledge about SOEs

Given the huge impact of extreme events like hurricanes on Antigua and Barbuda, SOEs are largely absent from the country's discussions about loss and damage. When prompted, several interviewees discussed SOEs but approached this issue quite differently depending on the nature of their work. For example, an interviewee from the MoF, when asked about SOEs, downplayed the issue: "Well, what I would say is when you said 'slow onset impacts,' I thought of an expression that we would use 'First world problems' … because we have some very pressing issues" (Interview 1). In contrast, an interviewee from NODS said that SOEs are incorporated in the comprehensive risk management approaches

that they deploy: "We look at everything. We look at extreme weather, slow onset, human-based, etc. Because we're looking at it comprehensively, we attempt to look at the whole gambit of things" (Interview 5). An interviewee from the Fisheries Division also highlighted the fact that a lot of attention goes to building resilience and rehabilitating after hurricanes but noted the impact of droughts on the sector:

> When we're thinking about climate change from a fisheries point of view a lot of focus tends to be on the immediate big, you know, the hurricanes. But obviously there are other issues, so for instance for us droughts are a big problem because that can impact the industry as well if you're talking about the water supply or food and safety issues. (Interview 3)

Data-gathering on SOEs was much more sporadic or nonexistent at the public sector level. Interviewees noted that SOEs are less well documented and the documentation is not as comprehensive or may not consider the full range of damages associated with different types of SOEs:

> One of the things, however, that makes it kind of difficult is that traditionally, there hasn't been … documentation of slow onset hazards, especially in this region in terms of the damages they cause. It's easier to do the assessment for an intense event, a high-impact event. But the damages done by, for example, droughts … They would look at it from an agricultural perspective or even an environmental perspective. But [what about] for example, the impact of drought on public or physical infrastructure, drying of the earth, cracking damage to pipes, resulting flooding after droughts and so on, loss of soil, land slippage, that sort of thing and so on. It is not as clearly defined or well documented as high-impact and sudden onset. (Interview 5)

Bottom-up local knowledge seemed to be the main source of information about a variety of SOEs. For example, when asked about the monitoring of SOEs such as sea-level rise or ocean acidification, an interviewee from the Fisheries Division noted: "Well we haven't really been monitoring. We have in the past had sensors and [monitored] some other things like pH, but it's not something we've been able to sustain" (Interview 3).

4.6.2 Tension between Economic Interests and Loss and Damage Data Collection

Some interviewees noted the politically sensitive nature of public sector data-gathering at the national level: Some data may have potential implications for the state's material interests. Paradoxically, in international negotiations on loss and damage, developing countries (AOSIS in particular) have sought to demonstrate liability for climate change loss and damage and benefit from compensation; yet at the national level, data shows climate change impacts can have negative political or economic impacts.

In many ways, addressing loss and damage becomes a Catch-22 situation for developing countries. For example, one interviewee from the DoE

noted that as they start to collect more detailed data about climate-related risks, this will have an effect on financial decision-making regarding, for example, the risks to properties in Antigua and Barbuda's "hot zone." The interviewee highlighted the types of questions that any country trying to develop in the context of climate risks and loss and damage will face: Should that information about risks to specific properties be released? Who should it be released to? This raises fundamental questions about the relationship between data quality, how transparent the government should be, and whose interests are protected by varying degrees of transparency (Interview 5).

Another interviewee suggested that data for adaptation planning needs to be of a high quality so that the government can use it confidently and transparently. Quality data also sends a signal that the government takes planning for climate change seriously. The interviewee noted the disadvantages of lesser quality data, specifically the link to potential liability claims:

> So as a civil servant … If I do something that opens a door for liability, my government has to pay for the cost. So we have to be very careful about what we say in the public, and how transparent we are going to be … So all of the information that we have to provide, it has to have a rigorous review process to ensure that we have good data quality. (Interview 2)

The interviewee further suggested that different government ministries viewed these issues differently:

> And right now, for example, we wanted to develop a project for the Green Climate Fund to collect a lot of detailed data … And then have an overlay of financial information – economic and financial information over that for the whole island … And [there are concerns] … that that is going to be too open and too transparent. In a world where it's so easy to blacklist a small island state. (Interview 2)

The interviewee also noted the increasing involvement of the private sector in these considerations, pointing to growing interest from banks and insurance companies in the information held by the government. Even interviewees in the DoE factored in economic considerations to their decision-making about data collection. They tended to see economic interests as being symbiotic with planning in anticipation of the risks associated with climate change:

> So I thought it would have been nice to do a national study so as not to caution the people away from investing in Antigua … that Antigua's still a great place to invest. But we can now be an honest, open type place where you can invest with confidence … So I think we can be a little bit more surgical and focused when we're conducting the assessment of the risk of any particular property. (Interview 2)

This discussion highlights the dual pressures on countries facing climate change-related loss and damage. On the one hand, the ability to monitor, document, and understand loss and damage of various sorts is crucial in improving

ways of averting and/or minimizing future loss and damage and in pursuing financing to address these issues where possible. On the other hand, the very existence of this data (particularly if it is in the public realm) further enhances a country's economic vulnerability as international finance, banking, and insurance sectors (among others) gain a better understanding of the risks of potential loss and damage. The story of loss and damage knowledge governance at the national level risks becoming one of "you are damned if you do and damned if you don't," further underscoring the profound justice questions raised by the adverse effects of climate change.

4.7 CONCLUSION

While applying the four-pronged analytical framework developed in Chapter 2 (Table 4.1), this chapter has particularly emphasized the role of international leadership, ideas, and knowledge in an emerging area of climate change policy in a state that faces multiple climate change risks. It has provided empirical evidence to illustrate how national policy actors conceptualize loss and damage. Loss and damage has historically been an ill-defined concept within the UNFCCC (Boyd et al. 2017; Calliari 2016; Vanhala & Hestbaek 2016), spanning DRR and climate change adaptation. This ambiguity – while facilitating progress at the international level – has often acted as a barrier to promoting national-level understanding of what constitutes loss and damage governance. For many of the interviewees, loss and damage is very much understood through a DRM or development lens, and interviewees tended to point to regimes or international institutions other than the UNFCCC as relevant in their work on loss and damage. Further research can continue to explore which international actors have ideational influence and how.

The research in this chapter also shows that policymakers are acutely aware of the need for data to support loss and damage policymaking. Creative approaches that draw on systematic public sector data and local knowledge are relied on across ministries in Antigua and Barbuda. However, a number of civil servants see the sustainability of data-gathering and monitoring projects as a challenge. There was also a consensus that while politicians' awareness of the need for data to help with the preparation for and rehabilitation after extreme weather events such as hurricanes had increased with recent experiences of high-impact events, many pointed to the fact that there is relatively little evidence-gathering related to SOEs.

The research also highlights some of the paradoxes associated with translating loss and damage policy decision-making from the global to the national level: Calls to explore liability as part of a policy response to loss and damage at the international level have generally come from the Global South and their civil society allies. In the UNFCCC sphere, those understood to be liable are the Global North, that is, historically high-emitting states. At the national level,

TABLE 4.1 *Summary of Antigua and Barbuda*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Higher-intensity hurricanes • More frequent droughts • Temperature increases • Sea-level rise and coastal erosion	• Environmental management policy • Environmental Protection and Management Act (2019 amended) ○ Sustainable Island Resources Framework • Disaster Management Act (2002) • UNCCD National Action Plan (2015) • SDG Medium-Term Development Strategy (2015) • Road Infrastructure Rehabilitation Project • NAP is being developed out of a GCF funded project on Readiness and Preparatory Support (using model data and the country's Geographic Information System database to create vulnerability map) • Updated Nationally Determined Contribution (2021)	• Sendai, CARICOM, finance-related (World Bank, GCF, CDB), United Nations Development Programme, few mentions of UNFCCC • Commission of Small Island Developing States and International Law (Litigation partnership with Tuvalu [2021] and ITLOS) • Regional: CDEMA, CCRIF	• Commonhold land-tenure and land-use practices shape DRM strategies (common land use since 1834, but disputes over land ownership after 2017 hurricane season) • Path dependencies from colonialism account for construction of social vulnerability to climate change impacts • High-level awareness of loss and damage across national institutions • A lot of work on climate change in Antigua and Barbuda has always been carried out by the DRR community but frustration that DRR and climate change community speak past each other at international level • Awareness of climate change-related stranded assets • Ministry of Finance is very climate change aware, involved in GCF proposals • Climate change resilience is one of the core cross-institutional themes	• Rise of "disaster capitalism" • Relevance of public sector data: Institutions across Antigua and Barbuda are aware of the need for a strong evidence base on loss and damage (e.g., environmental data, hydro-meteorological data, wildlife species data) but sustainability of data collection is still challenging • Local knowledge on loss and damage can act as supplement for nonavailable systematic data; local knowledge as communication device between public and authorities • Experiential knowledge about extreme events that are occurring makes authorities more receptive and assessments more precise • Gaps on SOEs in terms of both public sector engagement and evidence-gathering; role of local knowledge in bringing in experiences • Tension between gathering better loss and damage data and potential liability of national governments (especially when associated with investment decisions)

however, there is a tension between gathering better and more data to assist with loss and damage assessments and with predicting potential future loss and damage on the one hand and the potential liability of national governments that might come with this information, particularly when it is associated with investment decisions (including potentially by corporations, such as insurance companies, banks, and hotel chains, for instance, in the Global North), on the other. This reversal of liability from Global North governments to Global South governments through the process of translating ideas and concepts from the international to the national level shows that ideas and information are not neutral but are underpinned by sociopolitical arrangements that can exacerbate existing vulnerabilities.

Antigua and Barbuda has developed national-level expertise to allow it to take a leadership role within UNFCCC negotiations on loss and damage, culminating in the establishment of a loss and damage fund at COP27. While many of the details remain to be worked out at the time of writing, COP27 marked a historic turning point in achieving a consensus that there is a need to address loss and damage directly and concretely. This recognition of the need for finance has the potential to correct some of the injustices we highlight here, but it remains to be seen whether this potential will be realized.

This chapter complements recent scholarship which has highlighted the influence of another, more amorphous, institutional landscape that shapes Antigua and Barbuda's engagement with the loss and damage agenda: the legacies of colonialism. Look et al. (2019) argue that colonial land-tenure and land-use legacies are preserved, modified, and threatened during periods of extreme events. Future research on this could situate some of these recent policy developments and forms of engagement at the international level within the longer-standing history of colonial practices. This chapter follows work that calls for empirical and contextual studies that pay explicit attention to how responses to climate change – even those that may appear to be at the more technocratic end of policymaking – will have specific implications for which institutions have power, whose voice is heard, and which forms of knowledge are privileged and which are shut out.

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5

After the Storm

The Institutionally Disruptive Impacts of Climate Change in The Bahamas

Lisa Vanhala, Adelle Thomas, and Latonya Williams

5.1 INTRODUCTION

The Bahamas is a paradigmatic case of the myriad challenges facing Small Island Developing States (SIDS) when it comes to responding to climate change impacts. Despite the country's geographic vulnerability in terms of its disparate, low-lying islands, there is no national policy to address climate change loss and damage explicitly. While fifteen years ago the country was at the cutting edge in terms of thinking about climate change impacts – adopting a national policy on climate change adaptation in 2005 – our research with national stakeholders shows that both international and national incentives and institutional structures have, until recently, led to an emphasis on thinking about climate change mitigation over work on adaptation or loss and damage. As we saw in Tuvalu and Antigua and Barbuda in Chapters 3 and 4, the strength of recent weather events – particularly, in the case of The Bahamas, Hurricane Dorian in 2019 – has begun to change this landscape.

This chapter argues that climate change is having an institutionally disruptive impact in The Bahamas by changing the configuration of relevant bodies and empowering existing and newly established institutions and changing ways of working among civil society organizations. This is exemplified by the establishment of the Ministry of Disaster Preparedness, Management and Reconstruction in 2021; the strengthening of the national legal framework for environmental protection; and the growing awareness among civil society organizations, such as the Red Cross and the Nature Conservancy, that considerations of climate change should shape their activities in SIDS like The Bahamas. This chapter shows that though awareness of climate change is an important background context in policymaking this awareness does not always translate into policy. Political will and the ability to follow through on existing policy were seen by key stakeholders as critical for addressing contemporary and future climate impacts (Thomas & Benjamin 2018b).

This chapter draws on data from semi-structured interviews with key stakeholders in The Bahamas as well as a review of relevant policy documents. It surveys the policy landscape and identifies where and how adaptation and climate risks have been addressed – and where they have been ignored. It also examines which international institutions and frameworks policymakers and other stakeholders have turned to in dealing with issues relevant for climate change loss and damage. By looking at levels of awareness among key stakeholders of climate change impacts, the chapter highlights the forms of knowledge that are relied upon as well as identifying some key knowledge gaps. The chapter argues that while much of the loss and damage policy agenda is focused on developing the knowledge, resources, skills, and governance frameworks to grapple with the impacts of climate change, it is also worth paying attention to how climate change impacts are shaping political institutions and defining the possible contours of knowledge generation.

5.2 NATIONAL CIRCUMSTANCES

About 700 islands and more than 200 cays make up the archipelago of the Commonwealth of The Bahamas, with about thirty islands being inhabited (The Commonwealth of The Bahamas 2014, p. 6). The islands of The Bahamas have low relief, generally flat terrain, and contain significant wetlands and mangrove forests. The Bahamas is home to 5 percent of the world's coral as well as the world's third-longest barrier reef. Located in the shallowest tropical water area in the Western Atlantic, more than 80 percent of the country lies within one meter of sea level and the majority of the population are located on or near the coast (The Commonwealth of The Bahamas 2014, p. 2). This makes The Bahamas particularly vulnerable to the adverse effects of climate change, especially continuing sea-level rise, accelerated erosion of coastal zones, flooding from heavy rainfall, threats to freshwater sources because of saltwater intrusion, water scarcity, increased frequency and intensity of hurricanes, coral reef destruction, and the spread of vector-borne diseases such as dengue fever and malaria (Thomas & Benjamin 2020, p. 718). Threats to underground water resources due to seawater inundation as well as ocean acidifications pose risks to the country's biodiversity as they exacerbate coral bleaching and impede the natural stabilization and protection function of coral reefs against coastal erosion (The Commonwealth of The Bahamas 2014, p. 37; World Bank Group 2021).

Economically, The Bahamas is reliant on tourism, which accounts for 60 percent of its gross domestic product (The Commonwealth of The Bahamas 2014, p. 109). With 60 percent of the tourism infrastructure located within 100 meters of the coast, and a predicted loss of beachlines due to coastal erosion from rising seas, the country's main economic sector is at risk from climate change impacts (Pathak et al. 2021). Hurricanes and tropical storms are highly disruptive to the tourism industry and destructive for human settlements and infrastructure as well as natural ecosystems (The Commonwealth

of The Bahamas 2014, pp. 35–36). In 2017, for instance, category five Hurricane Irma left a whole island in the south of the archipelago unlivable. Hurricane Dorian in 2019 was the strongest to ever hit The Bahamas, causing flooding and mass destruction on the Islands of Abaco and Grand Bahama. The impacts of climate change also exacerbate preexisting vulnerabilities and increase the risk of human rights violations (Benjamin & Haynes 2018). The example of the displacement of irregular migrants has been well documented, and there have been reports of increases in gender-based violence, increasing vulnerability of children at risk of violence, and negative mental health impacts in the wake of Hurricane Dorian (International Organization for Migration 2020; Pegram & Knaute 2019; Rudram & Singh 2021; Thomas & Benjamin 2020, p. 725).

5.3 POLICY LANDSCAPE

To date, in terms of its overarching policy focus on climate change, The Bahamas government has focused on mitigation, with the adoption of a National Energy Policy in 2013 and amendments to its Forestry Act in 2014. More recent policy efforts have also focused on mitigation, with the Carbon Credit Trading Bill in 2022, which seeks to establish a regulatory framework for trading carbon credits (The Commonwealth of The Bahamas 2022a; The Securities Commission of The Bahamas 2022; see also McCartney 2022), and partnerships with a private cryptocurrency company to develop a carbon exchange. The Bahamas ratified the Paris Agreement on August 22, 2016, and its Nationally Determined Contribution (NDC) in 2016. The NDC commits The Bahamas to reducing greenhouse gas emissions by 30 percent compared to its business-as-usual scenario by 2030, conditional upon international support (World Bank Group 2021).

One interviewee suggested that policy development on climate change – particularly the focus on reducing emissions – has been influenced by the forms of international finance available: "Most of our climate change interventions have been focused on mitigation because that's where the money was, but The Bahamas really doesn't contribute that much to climate change" (Interview 8). Another civil servant who had been involved in United Nations Framework Convention on Climate Change (UNFCCC) processes had also been advocating for greater emphasis on adaptation policy because "even if we meet a 1.5 target, we're still going to have major impact. So we need to brace ourselves and focus on climate change adaptation" (Interview 2).

There is no specific climate change loss and damage policy in The Bahamas. The three main policy instruments relevant to governing climate change loss and damage are (a) the National Policy for the Adaptation to Climate Change issued by The Bahamas Environment, Science and Technology (BEST) Commission in March 2005; (b) the Disaster Preparedness and Response Act from 2008; and (c) the Environmental Planning and Protection Act (EPPA)

from 2019. The first of these assesses the country's vulnerability to the projected impacts of climate change by sectors, including coastal and marine resources and fisheries, terrestrial biodiversity resources, agriculture, forestry, human settlements and human health, water resources, energy and transportation, tourism, finance, and insurance. Policy directives were established for these sectors, and the government is seen as playing an important role facilitating the implementation of the policy directives (The Commonwealth of The Bahamas 2005). While the National Policy for the Adaptation to Climate Change refers to numerous forms of loss, there are no references to the concept of loss and damage as articulated within the UNFCCC. This is not surprising given that the policy was developed in the early 2000s, well before the loss and damage concept began to gain traction at the international level.

The enactment of Chapter 34A of the Disaster Preparedness and Response Act in 2008 established the basis for the current normative framework for disaster management in The Bahamas, consolidating the National Emergency Management Agency (NEMA) as the national agency responsible for disaster relief management in the country. However, an assessment by the Inter-American Development Bank (IDB) found in 2018 that "The Bahamas currently lacks a legal framework for comprehensive disaster risk management that explicitly addresses all risk management processes related to prospective, corrective and reactive management" (Lacambra et al. 2018, p. 3). In the immediate aftermath of Hurricane Dorian in September 2019, the prime minister announced the creation of a new Ministry of Disaster Preparedness, Management and Reconstruction, which includes a significant restructuring of NEMA. Climate change is increasingly cited in reports and plans as a factor contributing to disaster risk though, again, the notion of climate change loss and damage is not mentioned explicitly.

Third, in December 2019, the Parliament of The Bahamas passed a package of environmental bills to further develop the legal framework which promotes and supports the management, protection, enhancement, and proper use of the Bahamian environment. The EPPA 2019 includes among its objectives the development of a robust climate change regime that applies adaptation and mitigation technologies to address vulnerabilities. One interviewee also said that the country's draft National Development Plan (NDP), which creates a long-term vision for The Bahamas and identifies priorities and guides investment decisions, will play a role in shaping the policy landscape within which loss and damage will be addressed nationally (Interview 3). At the time of writing, the draft NDP, initially developed in 2016, has yet to be finalized and officially adopted by the government. However, considerations of climate change impacts are present throughout the document and the draft NDP is frequently cited as providing guidance for national development planning (The Commonwealth of The Bahamas 2022b). For example, in the section on natural environment, the NDP suggests: "We are increasingly acknowledging the importance of climate change. Climate change is real, and we are not prepared

for it. … Addressing the climate change challenge cannot be left to our grandchildren; it will be too late" (National Development Plan Secretariat 2016, p. 244). The NDP also includes consideration of resilient responses, coastal zone management, and relocation of human settlements.

Our data-gathering identified two significant barriers to developing further policy on the impacts of climate change. The first concerns political will, which was an issue raised by most research participants. One interviewee from an independent organization noted that there was a lack of motivation to pursue climate change policy despite mounting evidence of the problem: "I am not convinced that certain people in government actually are interested in taking care of the environment to the extent that it needs. … And there's evidence for that …. I know it's not from lack of information" (Interview 10). Another external stakeholder argued that the nature of the challenge of climate change and the timescales made it challenging for politicians to prioritize:

> Political will is a little bit different from awareness. There's the awareness aspect, then there is the political will. A lot of times people who are in politics … are looking for low-hanging fruits in terms of wins, and things that are outward facing for the public to "see what I did." Climate action doesn't always lend itself to those sorts of outward facing things … that you make a decision or implement something today and you really don't see the impact until five or ten years down the road. (Interview 7)

One interviewee, when discussing the EPPA, suggested that the strengthening of the law meant that political will was going to be less of a decisive factor in shaping action: "The political will has been there in certain aspects, and certain aspects it just hasn't been there. But I think that now the law is in place, we're going to see less influence from the political area because the law is the law. Of course, yeah, I expect people to challenge it, but the law is the law" (Interview 5).

Participants also identified the role of civil society in putting pressure on the government to act on climate change. One interviewee from a civil society organization reflected that in the development of policymaking it would be important for civil society organizations "to ensure that we don't come at the last minute to demand certain things, but we're doing it on a more consistent and visible basis" and also noted that "society as a whole has a lot to do in terms of holding the government accountable … and paying attention to these issues" (Interview 3).

Another challenge in climate change policy relates to the effective implementation of existing policies. Just under half of our interviewees brought this issue up without prompting during interviews. For example, one interviewee spoke of the frustration with the redundancy in policy work on these topics:

> You know how many times we've already come to this realization at every workshop to do with climate change that we've been at? We've come up with brilliant ideas that need to be implemented in terms of building codes, in terms of this in terms of that, but nothing ever results from these workshops. … Once the workshop is done, someone ticks the box and says we did it. Yay, done. That last report gets filed away, never to be seen

again. And then a new workshop comes up and we start from scratch with the exact same discussions. And we come up with pretty much the same ideas. (Interview 10)

Another interviewee made a similar point specifically in relation to the 2005 National Policy for the Adaptation to Climate Change, suggesting, "I don't think much of the things were implemented. So, definitely need to look at actioning items, rather than just writing them down. I love policy, but policy without action is nothing" (Interview 2). Another research participant noted the lack of implementation once assessment had been carried out: "So one of the things we have a tendency to do is carry out these assessments and what tends to happen, in my experience, is they're shelved, they're not necessarily incorporated into policies" (Interview 3). One interviewee highlighted the length of time taken for agreements to become policy:

I also think a challenge policy-wise for us is going to be consistency and follow through. So we might be successful like getting a climate policy or some agreement from the government to do something related to climate, that to me is an easier kind of win. What's more difficult is getting government to stick on it over a long period of time, despite maybe change in administrations and because climate really is an issue that's long term. This is a long game. It will require concerted effort for a long time. (Interview 4)

The same interviewee pointed out that for The Bahamas the coordination across many different departments and sectors is a huge challenge for successful policy implementation:

Another challenge to me is also coordination. So climate is cross-cutting I mentioned, we're obviously coming from an environmental angle, but this is going to affect all sectors, water sector, transportation, oil, tourism, banking, finance. So at some point I think trying to get us all to understand that this is a cross-cutting issue and there needs to be coordination across many stakeholders from multisectors and doing that to help us with accessing financing, understanding the applications policy-wise etc. That to me is an uphill battle for The Bahamas for sure. (Interview 4)

Despite these challenges, some interviewees felt that policymakers were becoming more attuned to climate change. One suggested that as new legislation is being developed "references to the impacts of climate change indirectly and directly in each of the new acts" would be fruitful and could link this national-level work better to global developments (Interview 1). Another stated that introducing considerations of climate change into bills before parliament would help to "tweak our legislation," which would "enable us to address climate change a little bit better." They cited the example of the Fisheries Act 2020, which now includes a requirement that the director of the relevant department is supposed to consider climate change issues (Interview 6).

5.4 INTERNATIONAL ENGAGEMENT

Policy stakeholders invoked a number of international institutions and developments in discussing climate change impacts, adaptation policies, and climate

change loss and damage. This included discussion of regional developments; the role of the sustainable development goals; finance, including climate finance, development aid, and concessionary finance; and UN bodies including the UNFCCC, the United Nations Development Programme (UNDP), and the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS). This section deals with these in turn.

5.4.1 Regional Developments

Regional developments and leadership on the impacts of climate change were highlighted by several policy stakeholders. One research participant who was particularly attuned to international developments highlighted the role of the prime minister of Barbados, Mia Mottley, and her calls for a multidimensional vulnerability index which will allow for the inclusion of more than just income-based criteria to assess eligibility for concessional finance, for example, after a major storm (Interview 3). Because many SIDS have middle-income status, they are often excluded from certain forms of financing but face risk and vulnerability; the proposed index would take those risks and vulnerabilities into account in funding decisions. In August 2020, the UN secretary-general committed the UN to advocate for SIDS on the issue of access to concessional finance and in November 2020 called for the development and coordination of work within the UN on a multidimensional vulnerability index. While highlighting this progress, the research participant also noted that The Bahamas could do more to take "the leadership role regionally and in a more vocal and consistent and deliberate way" but in general was "really happy that we've had Caribbean leadership on this," and noted that "it's CARICOM [Caribbean Community] acting as a unit and sometimes CARICOM doesn't act as a unit" (Interview 3). Another interviewee from the DEPP also spoke about more micro-level collaboration on a regional level:

> One of the things I like about the DEPP is that we learned a long time ago very little that we are faced with is new. There are certain uniquenesses because of our geographical location and no two places in the world are exactly alike, but very little is new. By developing the right partnerships, the right cooperation, you'd be surprised at how many times I sat down and looked over and said, "Wait a minute." I open my laptop and send an email to a colleague in Antigua or a colleague in Bermuda and say, "Didn't you have a project something similar along this line and had something similar to this? How did you deal with that?" (Interview 5).

5.4.2 Finance

The most common way in which interviewees invoked the international dimension was through the discussion of financing – including difficulties accessing it and the opportunities new forms of climate finance represented for The Bahamas. The first issue was the challenge of accessing the types of funding and

technical cooperation that are available for countries that are eligible for official development assistance. An interviewee noted, "As a high-income country, we aren't allowed to access certain types of technical cooperation. We're not entitled to receive low interest rates. We're not really entitled to debt forgiveness," but they also noted that this puts the country at a disadvantage because this is based on an understanding "that there are no external shocks that we have to deal with on an annual basis or twice per annum" (Interview 3). The individual said that real progress on climate change loss and damage would result in a change to this situation: "We're talking externally about this loss and damage conversation, and that's where the real impact will be because, if we're assessed fairly by these international agencies and international partners, it means that we can then access resources that are otherwise unavailable to us" (Interview 3).

However, interviewees from across different departments and sectors were aware of opportunities to access climate finance at the international level. An interviewee from the Ministry of Environment and Housing noted that "climate financing at the international level" is an opportunity "we are fully tapped into as a country" (Interview 4). One interviewee from the Ministry of Agriculture and Marine Resources noted that the issue with finance was not so much a question of availability, suggesting that "there is funding out there to support" but that the challenge was "a matter of us aligning and having persons to work on these projects and to implement" (Interview 1). An interviewee from the Ministry for Tourism echoed the perception that there was funding available and that "it isn't like our government will have to put all of the money for these projects," but in contrast with the other interviewee they suggested that in the sustainable tourism department "we have enough capacity to be able to write grants, to help local small businesses" (Interview 2). Interviewees mentioned a wide range of sources of funding, including the World Bank, the IDB, the Caribbean Development Bank, the Global Environment Facility, the Adaptation Fund, and the United States Agency for International Development (USAID). One interviewee suggested that SIDS are increasingly encouraging the key financial institutions to change their policy to focus more on adaptation:

> Most of those funds give you money for mitigation and for the after-effect of a [hurricane] Dorian, but they're now beginning to realize if we give them money for adaptation, the impact when there's damage done by a Dorian could be lessened and therefore lessen the strains on their own financial place. So that is the approach and how we do certain things when it comes to loss and damage. (Interview 5)

5.4.3 The UNFCCC and Other International Organizations

None of the policy stakeholders we spoke with explicitly mentioned the UNFCCC's work on climate change loss and damage or adaptation. The UN

climate body was alluded to by one interviewee in relation to The Bahamas' reports to the UNFCCC, and another had been involved in the COP process. At the time of our discussions, an interviewee from the Ministry of the Environment was developing the third national communication to the UNFCCC and suggested that the reports are valuable for identifying and correcting problems and for developing partnerships: "Those reports help us highlight the weaknesses in our climate evaluation program and where we need to make improvement. It's because of those reports we now see where we're falling short and we're making the strides to correct it. In doing that, we've developed strategic partnerships with different people who have this knowledge and experience" (Interview 8). Another interviewee noted that the broad topic of loss and damage had come up when The Bahamas acted as the SIDS' focal point to the UN-OHRLLS but otherwise was not typically used:

> This issue came up … the term "loss and damages" isn't something that's commonly used by individuals who were engaged in that particular conversation. … We usually use terms such as "the impacts" or "the fallout," but "loss and damage" is not something that I typically hear individuals use. (Interview 3)

Other international organizations that were mentioned in discussions about climate change impacts were the UNDP, the Food and Agriculture Organization, and the International Union for Conservation of Nature (IUCN) (Interviews 6, 9, 10).

Several interviewees noted the gap between discourse on the international and national levels on loss and damage. One said: "We're not going to treat something as problematic, if to us it hasn't been framed as an existential threat. It's one thing to say that at an international meeting and it's another entirely to come to The Bahamas and start talking about [it]" (Interview 3). The interviewee elaborated further that this was not just an issue on the climate change front:

> It's important for us to make sure that there's a connection between national dialogues and national policies, as well as the international and regional conversation that happens because we can say on the international stage, and we often do say that we need to take this into consideration. We need to do this, we need to do that. We say this about human rights. We say it about gender equality. We say it about climate action. Yet there appears to be very little done on the ground in terms of prevention and adaptation. (Interview 3)

Finally, the interviewee noted that one of the reasons useful ideas may not be incorporated is because of the country's small population and its tendency toward localism: "The Bahamas is a very tiny society and one of the challenges is when something seems foreign or external, it's not readily taken up" (Interview 3).

5.5 INSTITUTIONS

Climate change impacts have disrupted the institutional landscape in The Bahamas by changing the configuration of relevant bodies and empowering

existing and newly established institutions to make climate-related policy. In the aftermath of Hurricane Dorian in 2019, a crop of new institutions emerged, and there were significant shifts within and between existing departments and ministries. Civil society organizations have similarly been forced to rethink their existing policies to better deal with impacts, and to engage more directly with policymakers.

5.5.1 Interministerial Dynamics

Historically climate change policy was the responsibility of the BEST Commission of the Ministry of Environment and Housing, which was established in 1994 and managed the implementation of multilateral environment agreements (including the UNFCCC and the Convention on Biological Diversity). Until recently, the BEST Commission was responsible for reviewing environmental impact assessments and environmental management plans for development projects within The Bahamas. In order to coordinate The Bahamas' national response to the issue of climate change at the local, national, regional, and international levels, a National Climate Change Committee (NCCC), comprising government and nongovernmental representatives, was formed and first convened in March 1996 as a subcommittee of the BEST Commission (The Commonwealth of The Bahamas 2001).

Since 2019, a number of notable changes within and between ministries show how The Bahamas is bringing concerns about climate change impacts closer to the heart of government action. Two significant innovations are notable. First, in the aftermath of Hurricane Dorian in 2019, The Bahamas created a dedicated Ministry of Disaster Preparedness, Management and Reconstruction – the first ministry of this type in the region. On its launch in 2021, Pakesia Parker-Edgecombe, the first minister of state for disaster preparedness, management, and reconstruction, noted: "We are a coastal nation and amidst climate change, we recognized the need for focused attention in this sector. It is a proactive approach, rather than that of reaction" (Coakley 2021).

Second, the Department of Environmental Planning and Protection (DEPP) was developed to replace the BEST Commission. This department was granted new statutory powers that go beyond advising on projects and developments (Interviews 4, 5). For example, it has been developing relationships with several other departments to tackle different types of environmental issues: the Environmental Health Services Department concerning land-based pollution; the Port Department concerning marine-based pollution; and the Department of Marine Resources concerning threats to coral reefs and marine resources. One stakeholder from DEPP noted, "We are like an octopus. We have eight arms and each arm is … holding someone else's hand" (Interview 5). Reflecting on the new department's statutory powers, she also said:

> Now that we can actually say no and have the law to back us up when we say "no that's how climate change is impacting us." … Before we could only advise, and we could be overruled by other agencies with statutory powers. We now have those same statutory powers so we can say "no," and the law and the facts are on our side. (Interview 5)

Unsurprisingly, there is variation across and within ministries in terms of the extent to which climate change and climate change impacts are considered in policy development and implementation. Ministries that were seen by at least one interviewee to have "come on to the fact that we need to do things to counteract climate change" (Interview 1) included: the Climate Change Unit; the Ministry of Environment and Housing; the Sustainable Development Goals Unit in the Office of the Prime Minister; the Ministry of Transport, because of the large marine transport network and The Bahamas ship registry; the Ministry of Tourism, because of the impacts of storms on the industry; the Ministry of Works; the Department of Meteorology; the National Emergency Management Agency, because of its role in disaster preparedness and response; the Ministry of Agriculture, which has its own climate change policy and was using climate smart approaches in their work; and the Ministry of Education, which is incorporating climate change and adaptation in the curriculum (Interviews 2, 3, 5, 7).

Among policy stakeholders the perception is that beyond those entities identified as taking a more proactive approach to grappling with climate change impacts the response to climate change is more reactive and driven by disaster responses (Interview 3). Research participants also mentioned the Office of the Prime Minister and the Ministry of Finance as stakeholders in dealing with climate change impacts, but one interviewee noted that loss and damage as an issue "tends to fade into the background" in those entities because of the "million other priorities." The interviewee also suggested that, going forward, the Ministry of Finance and the Ministry of Financial Services, Trade & Industry and Immigration "is going to have a lot to say with respect to this [the topic of loss and damage]" (Interview 3).

Within The Bahamas, one of two mechanisms seemed to account for increased attention within government ministries to climate change and climate impacts. The first operates at the individual level and focuses on variation in attention to the issues among individuals (Interview 3 and see also Thomas & Benjamin 2018b). One interviewee noted that "you have some individuals within the cabinet who are incredibly … they're staunch on preserving the environment and addressing climate change. There are others who have different priorities" (Interview 3). On loss and damage specifically, the interviewee observed that "you see it happening in pockets, you see it happening where interested persons happen to be located," but noted that the "deliberate, holistic approach that is needed – we don't see it there yet" (Interview 3). A second mechanism concerns generational change within the civil service and among the political elite. Here, the interviewee suggested that some of the senior technical officers within the civil service "aren't really interested or … don't really

know about certain issues" and that therefore "you don't find that trickle up effect that you would like to see" (Interview 3). She also noted that the conversation about loss and damage "needs to be had by everyone. You need not only the policymakers who are in an office today but those who are coming up" (Interview 3).

Interviewees identified some institutional barriers to climate impacts being considered more coherently across ministries (Interviews 7, 10). One external stakeholder noted that The Bahamas "has a serious problem with the different agencies not speaking to one another … you'll have one agency doing something moving in a particular direction and then you have another agency basically undoing all that work" (Interview 10). Another interviewee also claimed that climate change has been "kept in the silo" and can be seen as something for DEPP to deal with, but the participant also noted that the NCCC has changed that perspective and "brought all the stakeholders to the table" to "address climate change adaptation and mitigation in a holistic manner" (Interview 2). Another barrier, linked to this discussion, concerns barriers within the civil service in terms of attention to the issue at different levels. One research participant suggested that the civil servant's role entails "trying to convince other officials that these are valuable and valid ideas and solutions" and then noted that when "validity" is linked to seniority in terms of the amount of time one has served in the civil service that can serve as a hurdle (Interview 3).

5.5.2 Civil Society

Stakeholders also identified changes within civil society in response to climate change impacts in The Bahamas. One of these changes concerns the increase in formal opportunities for climate change-related civil society organizations to engage with policymakers. For example, when the NCCC was first established in the mid 1990s it was composed of members from the Chamber of Commerce and the Association of Professional Engineers, highlighting the development orientation of the committee. Environmental organizations were notably absent (The Commonwealth of The Bahamas 2001). However, this has changed over time, and now the key environmental protection organizations in The Bahamas, including The Bahamas National Trust and the Nature Conservancy (TNC), sit on the NCCC. One external stakeholder noted that by sitting on committees like the NCCC, they are seeking to "build rapport with the government as much as possible" but one of the things they need to do "is help with educating policymakers" and "provide good information to the different agencies so that they can make better decisions" (Interview 10). Another interviewee reflected that civil society organizations, due to their independence from government, are more able to speak out on certain issues and to promote making "smart decisions on climate change" and are sometimes asked to do so by civil servants whose "voices are pretty much tied" (Interview 10).

New partnerships across civil society are also being forged. Research participants from the Red Cross Bahamas and TNC spoke about beginning to work together for the first time to better adapt the Red Cross's humanitarian work in The Bahamas to climate change. This partnership includes thinking about how to integrate ecosystem restorations and nature-based solutions into the Red Cross's work to help protect communities (Interviews 7, 11). Conversely, the partnership work has prompted TNC to shift as well. While the organization's main priority has been mainstreaming nature-based solutions, an interviewee reflected that community resilience was also a consideration: "As a result of the impacts that we've seen … it has caused us to change the lens through which we see some of this work and focus more on the community resilience aspect. How can we help the people be more resilient in terms of livelihood shifts and community adaptation plans?" (Interview 7).

The impacts of climate change are also shaping civil society organizations in terms of changing the needs of the service-user base. For example, a participant from the Red Cross noted that in addition to the growing severity of extreme weather events and disasters like Hurricane Dorian they were also dealing with slow onset hazards and related humanitarian issues: "We are having some temperatures in July and August that we have not seen before. Persons who may be homeless or need water or something of that nature impacts the Red Cross because we are out there assisting. … So climate change has an impact on us as a humanitarian organization" (Interview 11). The Bahamas National Trust had also suffered losses. For example, impacts on physical structures such as the parks office on Abaco island which had been devasted by Hurricane Dorian meant that the organization's "ability to manage national parks on that island pretty much vanished" (Interview 10). The TNC also noted that the nature of climate impacts was changing the types of projects they pursue. For example, changes in sea temperatures, sea-level rise, or major storms like Dorian can reverse certain conservation benefits that may be gained from projects and have caused the organization to rethink what kinds of work they should do (Interview 7).

5.6 IDEAS

Many research participants identified Hurricane Dorian as a critical turning point in cultivating a deeper understanding of the impacts of climate change in The Bahamas. For those that have been deeply invested in work on climate change, there was a palpable sense of relief about this silver lining to the disaster: "For all of the unfortunate things that Dorian did — and it did a lot of damage and caused a lot of havoc and a lot of pain to people — it also brought some realizations. … We have to do something to put us in a better place to improve the risk that we face from such destruction" (Interview 11). Another interviewee noted that immediately after a hurricane levels of concern about climate change are "at a ten" on a scale of one to ten, but then, "as we

start to recover and get comfortable it might go down to maybe three or four" (Interview 6). Another research participant also noted the increased attention to climate change around storms that is then often forgotten:

> I think it's important to highlight that climate action is something that needs to be at the fore and it tends to take a backburner. It's not something that's elevated beyond and outside of sudden onset events. So, I think that's one of the biggest hurdles, when people start to buy into it, people are going to expect MPs to do more and policymakers to do more and they'll start to demand it. Until then, I think we're going to react to each hurricane as though it was something brand new. (Interview 3)

In interviews several civil servants raised – without being prompted – research that has shown relatively low levels of public awareness of climate change in The Bahamas (Interview 8 and see also Thomas & Benjamin 2018b). Some civil servants reflected on how this impacted their policy work. One interviewee from the tourism sector noted the difficulty of working with local stakeholders who do not necessarily understand the possible extent of climate change impacts: "How do we work with local stakeholders to ensure that they understand the ramifications of climate change? A lot of them only link climate change to extreme events … they have a really narrow perspective of what climate change is and this hinders their ability to implement adaptation management to mitigate damage on their property" (Interview 2). One interviewee noted that their unit was seeking to educate Bahamians about the issues the country is facing "so that it's not a shock to Bahamians when we get another category five storm. Or it's not a shock to Bahamians as we see sea levels are rising and we're losing some beaches due to coastal erosion" (Interview 8). Previous research has found that perceptions of climate change risks in The Bahamas are mostly related to hurricanes, with Bahamian residents being less aware of other climate hazards (Thomas & Benjamin 2018b).

5.6.1 Knowledge

Previous research has highlighted the lack of data and evidence on climate change loss and damage in SIDS (Petzold et al. 2018; Thomas & Benjamin 2018a). Research participants discussed the types of knowledge and evidence that they rely on in policy work on climate change impacts. The forms of knowledge mentioned most frequently included natural science data, social scientific studies, and sector, local, or community-based knowledge. This ranged from information from coral reef biologists, fish biologists, bird biologists, and botanists to social scientists studying topics like economics and awareness of climate change (Interview 10). One nongovernmental organization (NGO) interviewee highlighted how these different forms of data can complement each other: "So in a project to identify new areas in the marine protection plan and to understand areas of mangrove expanse and coral reefs, there was one prong to identify a gap analysis of where more scientific

research was needed, and another prong involved engaging with local community stakeholders and relying on the local knowledge." (Interview 7). She identified the types of questions that were being asked across the project: "What are the areas that are important to you? Where are the nursery areas? Where are the breeding grounds? Where are the culturally relevant or historic areas that you want to see protected? And then all of that information gets merged together" (Interview 7). Interestingly, interviews suggested that stakeholders from external organizations were moving, in terms of their knowledge generation work, toward a greater interest in the interrelationship between climate change impacts and the resilience of communities. For example, a research participant speaking about the TNC noted that the organization provides information and evidence for policymakers including providing technical assistance to local government agencies (Interview 7). She noted that the organization is interested in undertaking vulnerability assessments and evaluating the adaptive capacity of communities to inform policy inventions and shape priorities (Interview 7).

Several research participants extolled the value of community-based data sources. One noted that it is "underrated and because it's not standardized oftentimes we dismiss it" (Interview 3). Another suggested that this type of information from the community was particularly valuable for gaining a historical perspective on climate patterns and impacts:

> Science is good. GIS locations and drone footage and cameras, well and good. A valuable asset, but that historical knowledge is something that we need greatly … Don't tell him I said this, but one of the best sources of environmental and historical information for New Providence is [name anonymized]. I can sit down and listen to that man talk about the history and the impact of storms and … how it causes change for hours. That is something that a lot of people don't take as important, but the historical information and the historical changes that they have seen and they can provide … it allows you to make an informed decision. (Interview 5)

Another research participant provided an example of an organization that had been delivering capacity-building and self-esteem workshops on gender equality issues but, as a result of work on the ground, switched its focus to producing and distributing dignity kits to girls and women who had been displaced in the aftermath of Hurricane Dorian because they did not have a supply of clean underwear and menstrual hygiene products (Interview 3).

Another stakeholder working in a government ministry on climate change discussed their reliance on people who work across the different industries affected by climate change, saying they "are able to feed to us what they are experiencing over the last thirty years … and so we listen to the locals, those who are actually working in the fields" (Interview 8). A participant from the Ministry of Agriculture and Marine Resources also noted that they have a fisheries advisory council, which includes fishers and representatives from NGOs and other government departments, which is a useful source of information to

"address any issue including climate change" (Interview 6). Another research participant working in the Ministry of Environment and Housing noted that the recent introduction of the requirement to undertake environment impact assessments for all projects provides more systematized forms of information which is collected into a database but suggested that this type of knowledge is often held by locals. She provided the example of discovering through this process that there was a blue hole (an ancient limestone cave carved into the ocean floor) in East Grand Bahama which the department was unaware of until they started clearing the area for the development project. She said, "Some of the inhabitants in the area might have known because the kids might have gone there to play, but we didn't know there was an actual blue hole there that [had] connection to the ocean" (Interview 5). Relying on this form of data can also enhance the legitimacy of policy work. One research participant noted that the people who "work on the ground, who can speak most passionately about these issues, because this is their daily reality, are often left out of the conversation. One of the things we're trying to do now is bring those voices into the conversation" (Interview 3).

5.6.2 Knowledge-Related Barriers and Opportunities

The existence of knowledge itself is not sufficient to drive policymaking on climate change impacts and, as previously discussed, political will was identified by many participants as a key hindrance, preventing knowledge about climate change impacts translating into policy action. As one interviewee from an external organization noted: "There's one thing to have the knowledge, the next is to actually have the will to make the difference to help make everything function better in the face of a changing climate" (Interview 10).

Research participants identified three barriers in terms of the generation of knowledge and the consideration of evidence about climate change impacts in policy development. First, interviewees suggested that there are gaps in data because of insufficient resources and/or capacity to gather the data. One research participant said, "There is a lot of data that we would like to have at our fingertips to help make decisions, but a lot of that isn't readily available so you have to actually go out and collect this data" (Interview 7). Another emphasized the lack of long-term data:

> We don't have much data, that is, strong, long-term data that can help us. I think this is going to be an ongoing challenge until The Bahamas really gets on top of … we need to do better with keeping track and monitoring certain types of data that's going to help to inform the way we view climate and its impacts on The Bahamas. (Interview 4)

Second, several research participants suggested that even where data may exist, they are often not accessible and/or translated into better policy decisions (Interviews 1, 3, 7). One research participant observed that "a lot of that isn't readily available … there isn't one central repository of information where this

data is housed where you can readily access it" (Interview 7). Another research participant offered a perspective from inside government departments, arguing that "we can't share those [data sources] externally," and then went on to link this with low levels of public awareness about climate change, suggesting that "information is so key but I don't know that as citizens we actively pursue that and, as a government, I don't know that we make these sources readily available" (Interview 3). She went on to note that where the administration "falls short" is in "producing timely relevant data on certain issues" (Interview 3).

Third, research participants also highlighted some of the challenges of translating the insights of scientific research for their policy work. For example, one research participant working in the tourism sector cited research that shows that if temperatures increase too much there will be a decline in tourism from Europe because "they will be unable to bear the temperature when they come to certain destinations" (Interview 2). He asked, "So how do we take science and apply it to the social aspect of tourism and also to the economic aspect of tourism?" (Interview 2).

Several interviewees suggested that there is a greater role for the University of Bahamas in these considerations (Interviews 1, 10). One argued that "our universities have not been as active as they should" (Interview 1), and another said, "It would be really great to see UB [University of Bahamas] getting involved in much more research, trying to figure out what is going to make our coastlines more resilient, for example, what works in Bahamas specifically" (Interview 10). This research participant emphasized that local data is best collected by national institutions, providing a specific example of mangrove restoration:

> With climate change everything is so site specific. There's only so much other countries can show us. At the end of the day, we really need more research on the ground in country to be able to discover what real adaptation means for our specific scenario. … If I go to Trinidad, they will advise "oh, you don't need to plant mangroves, you just fix the place and make it appropriate and it'll self-recruit and in two years you have a forest." That is not the case for The Bahamas, we have extremely slow growing [mangroves], we're very nutrient deficient. We have a different scenario. (Interview 10)

The interviewee gave another example of the numerous events and trainings she had attended where it was suggested that stakeholders should retreat from the sea, which is impossible given The Bahamas' geography: "We live in tiny flat islands. I have no highland to go to, so during a major storm that sea is coming into my house in any event. So we really need to figure this stuff out on our own" (Interview 10).

The research also identified several opportunities in relation to knowledge generation and dissemination. One NGO research participant noted that "most of the data that we collect can be utilized for climate change work, even if it's not climate specific data," and then provided an example of a project mapping coral reefs in the region. This project relies on satellite data, data from drones,

and information from other tools in the water to mark temperature changes and currents (Interview 7). Another research participant saw the aftermath of hurricanes as critical opportunities to collect data:

> [It was] a sad day in Bahamian history for the lives lost and damage done, but from a scientific and record-keeping standpoint, for the government of The Bahamas, it was a blessing because the data that came out of it, the information we obtained … [about] the impacts on our freshwater lens, our forests, our coastal environments, that's going to last us forever. (Interview 5)

The interviewee noted that post-Dorian information is now being used to develop land-use plans and coastal engineering policies (Interview 5). An interviewee from an external organization also noted that Hurricane Dorian "presented us with a great opportunity to really get in and do a bunch of research and figure out how these severe storms are impacting us" and said that the organization will use the same methodologies to monitor the recovery rates from this kind of storm (Interview 10).

5.7 CONCLUSION

Table 5.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. It shows that while The Bahamas does not have an explicit policy on loss and damage, it was nonetheless an early adopter of a domestic adaptation policy, suggesting cross-governmental awareness of the impacts of climate change. This awareness grew substantially after Hurricane Dorian through the establishment of new institutions and the empowerment of others. These developments suggest that there is some political will – if not evenly distributed across government ministries – to begin to grapple with the issue. However, interviewees did not show a clear understanding of the differences between adaptation and loss and damage policies (e.g., Interviews 2, 3, 5, 7, 10, 11). For slow onset events in particular, interviewees highlighted the need to prepare for impacts and identified actions that are more aligned with adaptation rather than loss and damage. However, for extreme events including hurricanes, interviewees identified the need to respond after disasters take place, more aligned with addressing loss and damage. Efforts to increase understandings of adaptation, loss and damage, and the interlinkages between them may be helpful in advancing loss and damage policy.

The research identified a number of barriers to more work on loss and damage taking place. This included both the nature of policymaking in this area with public awareness continuing to be seen as a challenge – particularly in relation to slow onset events – and institutional features such as siloed policymaking and a gap between the development of ideas and policies and their implementation. While the research suggests that there are significant knowledge gaps both in the generation of new knowledge and access to existing

TABLE 5.1 *Summary of The Bahamas*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Sea-level rise and accelerated erosion of coastal zones • Flooding from heavy rainfall • Threats to freshwater sources because of saltwater intrusion • Water scarcity and threats to underground water • Increased frequency and intensity of hurricanes • Coral reef destruction • Spread of vector-borne diseases	• NCCC (mid 1990s) • National Policy for the Adaptation to Climate Change (2005) • Disaster Preparedness and Response Act (2008) • EPPA (2019) • National Energy Policy (2013) • Forestry Act (2014 amended) • Carbon Credit Trading Bill (2022) • No explicit policy to address loss and damage at national level • First NDC (2016)	• CARICOM, finance-related (sources of funding, including the World Bank; the IDB; the Caribbean Development Bank; the Global Environment Facility; the Adaptation Fund, and USAID), less mentions of UNFCCC, UNDP, UN OHRLLS, Food and Agriculture Organization, and IUCN • Partnerships with a private cryptocurrency company to develop a carbon exchange • Limited awareness and engagement with the UNFCCC	• Climate change and related extreme events have an institutionally disruptive impact (especially Hurricane Dorian in 2019): establishment of a new Ministry of Disaster Preparedness, Management and Reconstruction; strengthening of legal framework for environmental protection, growing awareness among civil society organizations that climate change and its interconnections with various forms of vulnerability should shape their activities • Variation across and within ministries in terms of the extent to which climate change and climate change impacts are considered in policy development and implementation • Some ministries are climate change conscious and proactive (e.g., Climate Change Unit; Ministry of Environment and Housing; Sustainable	• The country was cutting edge in terms of thinking about climate change impacts – adopting a national policy on climate change adaptation in 2005 but mitigation has been prioritized over adaptation and loss and damage • Recognition of the importance of public and elite awareness as well as political will to address climate change and implement existing policies ○ Still relatively low levels of public awareness of climate change and hazards • Relevant knowledge types: natural science data, social scientific studies, and sector, local, or community-based knowledge

(*continued*)

TABLE 5.1 (*continued*)

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
			Development Goals Unit in the Office of the Prime Minister; Ministry of Transport; Ministry of Tourism; Ministry of Works; Department of Meteorology; National Emergency Management Agency; Ministry of Agriculture) ◦ Other authorities are more reactive and driven by disaster responses • Increased attention to loss and damage also due to engaged individuals and generational change in the civil service • Barriers to more action: climate change still siloed issue; not enough inter-agency cooperation; seniority levels in the civil service and authority • Importance of civil society (e.g., to highlight and speak up on issues) but also increased pressure on civil society (e.g., what work should they focus on in times of increasing extreme events?)	• No clear understanding of the differences between adaptation and loss and damage policies • Significant knowledge/data gaps in both the generation of new knowledge and access to existing knowledge • But other forms of information – from the communities or sectors being impacted – can act as a useful supplement in some instances

knowledge, it also shows that other forms of information – from the communities or sectors being impacted – can act as a useful supplement in some instances. This indicates that gaps in knowledge need not be an impediment to policy development in this area.

The notion that a just response to climate change is one to be navigated at the international level runs throughout the data presented in this chapter, particularly for financial resources needed to respond to climate impacts. However, interviewees showed limited awareness and engagement with the UNFCCC, which is where loss and damage issues are being explicitly addressed at the international scale (Interview 3). Efforts to increase the understanding of how loss and damage is framed at the international scale, how this connects with national and local impacts, and more proactive engagement with the UNFCCC on loss and damage may also be helpful to advance loss and damage policy and action in The Bahamas.

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6

Loss and Damage in a Landlocked State

The Paradox of Ethiopia's Green Economy

Lisa Vanhala, Selam Kidane Abebe, and Asaye Ketema

6.1 INTRODUCTION

Africa is widely known to be highly vulnerable to the impacts of climate change, and Ethiopia is often held up as a particularly extreme example of this vulnerability. The Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2022: Impacts, Adaptation and Vulnerability," found that climate change is reducing crop yields and productivity. For example, agricultural productivity growth has been reduced by 34 percent since 1961 due to climate change, more than any other region (Trisos et al. 2022, p. 1291).

Ethiopia is uniquely exposed to climate change risks, which vary significantly across its regions and environmental zones. At the same time, it is also seen as a paradigmatic example of a state that is – on paper at least – committed to sustainable development despite its status as a least developed country (LDC). Internationally, Ethiopia has risen to prominence in climate policymaking as a champion of a sustainable model of growth and was known throughout the 2010s for its ambition to become a "green economy front-runner" (Paul & Weinthal 2019). It has also been one of the world's fastest-growing economies over the last decade, achieving average economic growth of 10 percent between 2005 and 2020, which has resulted in sustained improvements in the living conditions of the population. At the heart of this endeavor is Ethiopia's Climate-Resilient Green Economy (CRGE), a development strategy launched in 2011, which mainstreams considerations of climate change across policy development and implementation across sectors.

This chapter explores several paradoxes in Ethiopia's climate change policy. First, despite growing awareness of Ethiopia's vulnerability to the impacts of climate change in the late 2000s, early climate policymaking was focused on mitigation strategies rather than adaptation. This is puzzling considering that

until the adoption of the Paris Agreement most developing countries consistently maintained that they have little obligation to take action on greenhouse gas emissions given the patent unfairness of developed states having industrialized without limits. Second, in many ways, landlocked Ethiopia does not fit the classic mold of a country grappling with loss and damage. Until relatively recently in the history of the UN climate change system, at the international level at least, loss and damage was seen as an issue that concerns Small Island Developing States (SIDS).

This chapter argues that the early emphasis on mitigation was driven partly by the leadership of the late Prime Minister Meles Zenawi, who became a high-profile international spokesperson on the impacts of climate change in Africa. He stood for the promise of green economic growth, and under his leadership, there was growing interest from international donor agencies, global civil society groups, and nongovernmental organizations (NGOs) within Ethiopia for the country to become a model of sustainable development (Held et al. 2013). We argue that while the country's top political leadership was motivated by a growing sense of Ethiopia's vulnerability to climate change as early as the late 2000s, there was more emphasis at that time in the international sphere on emissions abatement and economic growth. The early focus on mitigation efforts in Ethiopia was also a result of its adoption of international and regional leadership in the United Nations Framework Convention on Climate Change (UNFCCC) process. Novel policy ideas about how to achieve sustainable development along with new opportunities within and beyond the UNFCCC for tapping into international sources of climate finance (such as the Clean Development Mechanism) could facilitate domestic economic priorities (Held et al. 2013).

Now there is not only an increasing awareness of the manifold impacts of climate change in Ethiopia but also a growing policy attention to adaptation needs and efforts. While considerations of loss and damage are not explicitly mentioned in domestic climate policies, the notions of resilience and transformation are at their center. Interviews suggest that many policy stakeholders are familiar with the concept of loss and damage not only through their involvement in the UNFCCC but also through other international processes, including the United Nations Convention to Combat Desertification (UNCCD). We argue that growing policy attention on adaptation, adaptation limits, and disaster risk is a result of: (a) long-standing international engagement with the issue of climate change impacts; (b) a currently high level of attention being given to climate impacts as a result of large-scale global extreme events and the publication of IPCC reports; (c) lived experience of managing the consequences of climate change, including, for example, droughts, floods, and landslides; and (d) a growing perception of new opportunities for tapping into actual and potential international sources of climate finance that could facilitate domestic objectives around building climate resilience, addressing internal displacement, and grappling with the loss and damage already being felt in the

country across sectors, including agriculture, transport and infrastructure, and economic development.

In what follows, we discuss the effects that climatic changes are having – and likely will increasingly have – in Ethiopia. We map out relevant climate change policies in Ethiopia and outline the shift from a relatively single-minded focus on mitigating greenhouse gas emissions to an increasing emphasis on adaptation responses and overall resilience. We then show that policymakers are aware of the reputational and potential financial benefits of engaging with the issue of climate change impacts at the international level. We suggest that in contrast with the phenomenon of early domestic policymaking on climate change being driven by engagement at the international level, more recent policymaking efforts, including the growing importance of adaptation and awareness of adaptation limits, have been driven by experiences of the impacts of climate change at home. We suggest that this has shaped international engagement in the UNFCCC since Meles's early involvement at the African and then international level. At the same time, we argue that a focus on climate change impacts has achieved greater traction in recent years as the adaptation challenge and loss and damage have increased in prominence within the UNFCCC space. We also explore the role of Ethiopia in highlighting the plight of landlocked countries in the face of climate change loss and damage, thereby challenging a narrow framing of loss and damage as a SIDS issue. We then turn to domestic institutions and the ideational sphere to show that while there is increasing evidence of loss and damage and growing awareness there remain gaps in knowledge, delays in policymaking and implementation, and a lack of capacity of regional and city governments to implement the ambitious plans that have been developed, all of which are exacerbated by the lack of resources and technology to make the necessary adjustments.

6.2 NATIONAL CIRCUMSTANCES

Located in the Horn of Africa, Ethiopia is a landlocked country, and with a population of around 102 million people, it has the second-largest population on the African continent (Federal Democratic Republic of Ethiopia 2021, p. 2). Seventy-eight percent of working Ethiopians are employed in the agricultural sector, and the country maintains the largest livestock population in Africa (Federal Democratic Republic of Ethiopia 2021, p. 3). Ethiopia's reliance on rain-fed agriculture and its changing rainfall patterns mean that its economic vulnerability to climate change is high. Currently, mean rainfall levels vary around 25 percent annually, and it is estimated that yearly variation can reach up to 50 percent in certain parts of the country. Moreover, the southern region of Central Ethiopia is already grappling with 20 percent less rain (Federal Democratic Republic of Ethiopia 2021, p. 3). Although Ethiopia is known as the "water tower of Africa" due to its twelve river basins, twenty-two lakes, and extensive groundwater resources, water availability per capita could

decrease by 65 percent by 2080 (Degefu et al. 2015, p. 305; Gesellschaft für Internationale Zusammenarbeit 2019, p. 7).

At the same time, extreme weather events – including flooding and heavy rainfall – are increasing, which causes additional distress in the form of soil erosion and critical infrastructure damage (Interview 5) (see also Federal Democratic Republic of Ethiopia 2021, pp. 3–4). For example, in May 2021, around 27,400 people were displaced by flooding in the Afar Region (Davies 2021). The increasing rainfall variability also exacerbates the frequency and intensity of droughts (World Bank Group 2021, p. 6). Due to underdeveloped water resources, droughts and extensive dry periods pose particular challenges to crucial natural ecosystems and resources, which increases the potential for conflict in affected areas (World Bank Group 2021, pp. 3, 11, see also Interview 3). Rural parts of Ethiopia, where almost 80 percent of the population lives, are particularly vulnerable to climate-related impacts (Federal Democratic Republic of Ethiopia 2021, p. 3; Gezie 2019, p. 7). This is largely because these pastoral, agropastoral, and smallholder farming communities heavily depend on a stable climate for rain-fed agricultural subsistence (Gezie 2019, pp. 13–14; see also Feliciano et al. 2022). For decades, the population of the Ethiopian highlands has been affected by increasing food insecurity stemming from high population growth, deforestation, and ill-suited methods of agricultural production and productivity.

Most research participants mentioned land degradation when listing the types of climate change-related issues that the country faces, and one noted that "unless we restore those priority areas within ten or twenty, fifty years there will be an adverse effect of land degradation in terms of physical land degradation, biological and chemical land degradation" (Interview 3). The interviewee added that the decrease in productivity "will really hasten the migration of people from degraded areas," which is also captured in the government's policy documents that explore population movements and displacement from extreme as well as slow onset events (Interviews 3, 7) (see also Federal Democratic Republic of Ethiopia 2021, p. 4). Rising mean temperatures further increase the prevalence of climate-sensitive diseases, including increasing occurrences of malaria and dengue fever in human communities. Interviewees also mentioned the growing prevalence of and changes in disease among livestock and growing concern about the impact of certain types of insects, such as locusts, in the agricultural sector (Interview 2 and see also World Bank Group 2021, p. 20). In the early 2010s, the Ethiopian government estimated that climate change was already resulting in economic losses equivalent to 2–6 percent of gross domestic product each year (Federal Democratic Republic of Ethiopia 2010). The cumulative economic-wide impact of future climatic changes is predicted to be severe. Noneconomic losses to the cultural heritage and ways of life of people could also become a major concern if the movement of people continues to be instigated by the impacts of climate change.

6.3 POLICY LANDSCAPE

Despite growing scientific understanding of climate risks and the urgent need for adaptation, Ethiopia's development and coordination of climate change policy at both the domestic and international levels were fairly limited until 2009. The Council of Ministers (the cabinet of the Ethiopian government) recognized the need for an effective response to global warming as early as 1997 – for example, the environmental policy of Ethiopia adopted that year included policy recommendations related to climate change – but in line with the policies of most developing countries, the issue was not prioritized (Held et al. 2013). Goals of creating a climate monitoring program and taking action on climate change were vaguely defined and relatively underdeveloped, with the exception of several projects and programs supported by international public and private donor agencies or domestic civil society organizations (Held et al. 2013). However, as awareness of climate change and its impacts grew in the late 2000s, the Ethiopian government began to develop a more proactive and strategic response.

Since then, Ethiopia has been at the forefront of embedding climate-related objectives into the country's model of development. Complementing its rise as a climate change policy leader internationally (discussed later), the Ethiopian government had made climate change a domestic priority by 2010 (Paul & Weinthal 2019). In the five-year Growth and Transformation Plan of 2010, the government set the ambitious objective of Ethiopia achieving net zero emissions by 2025 (Federal Democratic Republic of Ethiopia 2010). With the support of the Global Green Growth Initiative (GGGI), an intergovernmental organization with ties to private industry based in South Korea, Ethiopia embarked on ambitious structural transformation through the launch in 2011 of its CRGE initiative. It was the first country in Africa to try to implement such an initiative, which involves boosting agricultural productivity, strengthening the industrial base, and fostering export growth all in a sustainable fashion.

The CRGE has two components: the Green Economy Strategy, published in 2011, which focuses on mitigation through green economic development, and the Climate Resilient Strategy, which focuses on tools for adaptation and building climate resilience through the Ethiopian Programme of Adaptation to Climate Change (Kaur 2013; Paul & Weinthal 2019). Specific objectives related to mitigation goals include reducing agricultural emissions, protecting and expanding forests, expanding renewable electricity generation, and adopting energy-efficient technologies in transport, industry, and the built environment. A new CRGE facility was also established to attract funding. The CRGE was mainstreamed into the Second Growth and Transformation Plan (GTPII), which covered the 2016–2020 period.

A new ten-year development plan was released in 2020 for the period 2021–2030, and the process of its development was aligned with the process for updating Ethiopia's Nationally Determined Contribution (NDC). While

undertaking both processes in parallel created an additional administrative burden, it offered an opportunity to mainstream climate change considerations into the country's development objectives (Belay et al. 2021). Ethiopia submitted an update to its enhanced NDC in July 2021 (Federal Democratic Republic of Ethiopia 2021). One research participant that has been involved in the international negotiations noted that there is growing awareness domestically that "the climate changes, and unless we take the necessary measures we may not survive" (Interview 2). He suggested that awareness was growing and that "everybody will know how much climate change has an impact on the economy, on the social, on the environment … it will even include the politics issue in the future" (Interview 2).

Until the mid 2010s, the adaptation stream could be seen as the poor cousin of mitigation policies and sustainable development objectives. For example, in the foreword to the CRGE document there is an explicit note stating "[t]he document does not cover climate resilience, which will be added over the coming months," but it was only in 2014 that the first part of the Climate Resilient Strategy, on agriculture, was completed (Federal Democratic Republic of Ethiopia 2011, p. iii; Paul & Weinthal 2019). The majority of national and international programming efforts focused on the agricultural sector, including pastoralism, as well as disaster risk management and capacity-building for government officials and civil society.

By the mid 2010s, there were still key gaps in adaptation action (Echeverría & Terton 2016). However, in 2019 Ethiopia launched a fifteen-year National Adaptation Plan (NAP), taking a sectoral approach to adaptation and focusing on the agriculture, forestry, health, transport, power, industry, water, and urban sectors (Federal Democratic Republic of Ethiopia 2020). Developed in accordance with the Cancun Adaptation Framework of 2010, the aim of the NAP is to mainstream adaptation into the national development plans, in particular the GTPII (Belay et al. 2021). It includes five strategic priorities: (a) mainstreaming climate change adaptation into development policies, plans, and strategies; (b) building long-term capacities of institutional structures involved in adaptation; (c) implementing effective and sustainable funding mechanisms; (d) advancing adaptation research and development in the area of climate change adaptation; and (e) improving the knowledge management system for the NAP (Federal Democratic Republic of Ethiopia 2019). According to the document, the estimated cost of implementing the NAP over the fifteen-year period is approximately USD 6 billion per year (Federal Democratic Republic of Ethiopia 2019, p. iv).

On a policy level, Ethiopia is seen as a leader among low-income countries, particularly on the mitigation side but also more recently on adaptation (Belay et al. 2021). However, interviews with stakeholders and existing research have suggested there is an implementation gap. One interviewee described the financial restrictions on putting policy into practice: "The main challenge now in the first place is a finance issue because, as you know,

Ethiopia is one of the countries that has good environmental and climate change policies and regulations. But putting that into practice requires quite huge amounts of money" (Interview 6). Other research has noted that the reach of the Ethiopian state to implement programs across the country, particularly into rural areas, remains limited (Paul & Weinthal 2019). Some scholars have taken an even more critical stance. In an early critique of the environmental policy of Ethiopia, Ruffeis et al. (2010) argue that the policy in the 2000s was driven by donors rather than a genuine commitment from the government. They suggested that (at that moment at least) there were irreconcilable tensions between development policies and environmental priorities (see also the debate between Keeley and Scoones [2000] and Nyssen et al. [2004]). More recently, a Climate Action Tracker report observed that "[w]hile there is continuity of climate efforts across administrations, there is not the same commitment to ambitious action as when Ethiopia took early action and adopted its ten-year climate strategy years ahead of the Paris Agreement" (Climate Action Tracker 2020).

A final barrier to advancing climate policy domestically is conflict. The recent internal instability in Ethiopia has meant, as one research participant noted, that more immediately pressing concerns over conflict have resulted in climate policymaking being seen as less urgent: "The government now is really busy with other issues, very burning and critical national issues," which means that "environmental issues might be overlooked" (Interview 6).

6.4 INTERNATIONAL ENGAGEMENT

The late Prime Minister Meles became an international spokesperson on the impacts of climate change in Africa in the 2000s. The twelfth Conference of the Parties (COP12) of the UNFCCC, held in Nairobi, Kenya, represented a critical juncture for engagement with climate change policy in Africa (Paul & Weinthal 2019; Ramos & Kahla 2009). In 2009, the African Union took a common position on climate policy including acceding to the UNFCCC and the Kyoto Protocol. Prime Minister Meles was then nominated to the inaugural chair of the Conference of African Heads of State and Government on Climate Change, which moved the issue of climate change up the policy agenda in Ethiopia (Held et al. 2013). He played an even more pronounced role at COP15 in Copenhagen, highlighting the issue of African nations' need for climate change adaptation finance and support, and played a notable role in negotiating the objective of developed states providing USD 100 billion in climate finance by 2020 (Vidal 2009).

Previous research has suggested that the Meles government's position on domestic climate policy was heavily shaped by international influences, including those described earlier (Held et al. 2013; Paul & Weinthal 2019). Another factor that has been identified was the Ethiopian government's engagement the GGGI, which played an important role in shaping the CRGE. The GGGI

had begun to partner with governments in order to help with the development of low-carbon growth strategies and projects, as well as implementation and capacity-building. Ethiopia was seen to have numerous opportunities to reduce emissions while maintaining high levels of growth: Having invested heavily in hydropower, it could expand its ability to provide clean energy for the region; transportation infrastructure could be upgraded to reduce emissions; and agricultural practices could be cultivated in such a way as to advance sustainability objectives. This set of new ideas about green growth aligned with a domestic agenda focused on economic development as well as with a growing awareness that the donor community was interested in sustainable development. Moving first among low-income states was seen as a way of helping attract investors and donors to the various initiatives resulting from the CRGE.

International influence also shaped early planning on adaptation. Ethiopia developed its National Adaptation Programme of Action (NAPA) and its Climate Change Technology Needs Assessment Report, released in June 2007, with financial and technical assistance from the Global Environment Facility and the United Nations Development Programme (UNDP). Held et al. (2013, p. 224) argue that "it is doubtful whether the documents would have been undertaken without this support." The NAPA provided a comprehensive assessment of the country's vulnerability and the kinds of measures needed to adapt successfully. Another research participant suggested that engagement with the UNCCD has also shaped understandings of climate impacts and methods for establishing indicators of land degradation, collecting data, and reporting (Interview 3).

Meles's passing in 2012 did not put an end to Ethiopia's international engagement; if anything, Ethiopia has become even more active over the past decade. Negotiations on how to address climate impact gained more prominence from the mid 2010s onward in the UNFCCC and other ministerial-level convenings, globally and regionally. Ethiopia, as part of the LDC Group on Climate Change, African Group of Negotiators on Climate Change (AGN), and G77 & China, plays a leading role in the negotiations under the UNFCCC. For a two-year period, from 2017 to the end of 2018, Ethiopia served as the chair of the LDC Group for the climate negotiations. During this period, it called for scaled-up climate financing to address the adverse impacts of climate change, ambitious mitigation efforts by developed countries to avert climate change, and a devoted political space both under the COP and the Paris Agreement governing body.

During the negotiations at COP23, Ethiopia, on behalf of the LDCs, stressed the importance of exploring options to mobilize and enhance support for addressing loss and damage. COP23 in decision 5/CP.23 paragraph 9 concluded by establishing the "Suva expert dialogue," which aimed to consider a range of information and views in order to mobilize and secure expertise and build finance, technology, and capacity for addressing loss and damage. In 2018, following the discussion of the Suva expert

dialogue, Ethiopia on behalf of the LDCs called for a permanent technical and political space under the UNFCCC Financial Mechanism for addressing loss and damage.

Since the adoption of the Paris Agreement, Ethiopia has also led the negotiations on Article 6 on behalf of the LDCs. Article 6 discussions, particularly on the share of proceeds from international carbon markets, are an important source of financing for adaptation projects. Ethiopia also represents the LDC Group in negotiations on the global stocktake, assessing the progress made toward achieving all the goals of the Paris Agreement. Furthermore, Ethiopia continues to be among leaders on mitigation ambition with ministerial-level leadership, including the Climate and Development Ministerial, which contributed to the success of COP26 at Glasgow.

Countries adopted the Glasgow Climate Pact in decision 1/CMA.3 at COP26. Paragraph 78 of the decision established the Glasgow Dialogue on Loss and Damage. It was considered a game changer at the time, as it created some space for discussing financial arrangements for loss and damage. However, the discussions at the first Glasgow Dialogue during the fifty-sixth session of the Subsidiary Bodies under the UNFCCC were stalled with no clear path forward on how to address the impasse. This stalemate resulted in developing countries – led by the G77, with support from the subgroups LDCs, SIDS, and AGN – to submit a request for a formal agenda item on financial arrangements for loss and damage at COP27. This request was granted, and the establishment of a loss and damage fund was heralded as a major victory in Sharm El Sheikh. Ethiopia contributed to both the request and the ensuing discussion, drawing attention to regional concerns of loss and damage such as noneconomic losses, droughts, and associated food security risks.

In line with previous research, we find a growing perception of two types of opportunities associated with international engagement. The first is related to reputation. Several interviewees noted that Ethiopia is known internationally for having good policies and regulations and buy-in across senior leadership, and they saw this as advantageous for the country not only internationally but also at the African level (Interview 6). As one interviewee noted, "It can gain us attention from the world's nations" (Interview 5). The second concerns resources. Several research participants noted that paying attention to climate risks and loss and damage can help Ethiopia tap into international sources of climate finance that can support the implementation of polices and facilitate other economic objectives related to building resilience (Held et al. 2013; see also Interviews 5, 6, 7). For example, one research participant involved in the UNFCCC negotiations noted that "it is known that there are various sources at the national and international level. So, this source of finance is one of the opportunities that we have, if we are able to use it properly" (Interview 2). However, there was also an awareness of the limitations of international climate finance. One of the research

participants suggested that international financial resources are "not sustainable and dependable" and that developed countries are "cutting a lot of their aid, which is politicized" (Interview 6).

6.5 INSTITUTIONS

Awareness of the problem of climate change has increased among officials from nearly all ministries and levels of government as well as across international organizations based in Addis Ababa (Interview 2). As Held et al. (2013, p. 218) note, "Climate change once used to warrant little to no mention by officials outside the country's main UNFCCC and Clean Development Mechanism (CDM) focal points. Adaptation and mitigation policies and programmes were underdeveloped, at best."

Paralleling growing engagement at the international level, Ethiopia began to take a cross-ministerial approach in 2010 in order to have oversight of the development of its official climate change strategy. A Ministerial Steering Committee was composed of ministers from what was then the Ministry of Finance and Economic Development (MoFED), the Ministry of Agriculture and Rural Development, the Ministry of Water, Irrigation and Energy (MoWIE), the Ministry of Trade and Industry, and the Ministry of Transport and Communication (MoTAC) and the heads of the Environmental Protection Agency and the National Meteorology Agency. As an initiative with its genesis from within the Prime Minister's Office, the Ministerial Steering Committee was notable for its high political status and for its ability to stimulate climate change awareness and planning in all the major ministries. It suffered, however, from the fact that many ministries did not yet have the expertise and/or capacity that were required to engage with the issue and identify sector-specific needs, and it was also criticized by local civil society groups for excluding them from the policymaking process (Held et al. 2013).

The Ministerial Committee oversaw the development of Ethiopia's CRGE strategy, and the MoFED, together with the Environment, Forest and Climate Change Commission (EFCCC), has a strong reputation in delivering on climate change projects (Climate Action Tracker 2020). Our interviewees from across ministries showed a high level of awareness of climate impacts. For example, an interviewee from MoTAC noted that while the primary concern of the ministry is reducing greenhouse gas emissions in the transport sector it also had two secondary concerns: building climate-resilient infrastructure and preventing the adverse impact of infrastructure development on society and the environment. The participant noted that weather can have multiple potential impacts on transport. For example, landslides could result in both a disruption to transport service schedules and damage to infrastructure (Interview 5).

A number of challenges at the institutional level were also seen to shape the development and responses to climate change impacts. The first concerned questions of capacity in terms of finance and technology. One interviewee noted that when it came to addressing loss and damage "everything is relying on finance." They then added that particularly when addressing loss and damage technology would be critical. The interviewee pointed to early warning systems in particular to provide information to protect vulnerable groups (Interview 2). This was echoed by interviews with research participants from across ministries (Interviews 5, 7, 8). A related issue that was highlighted in interviews concerned capacity to develop projects and programs related to climate change impacts that would then be supported by donors (both public and private). One research participant working on land degradation said, "We need to develop very good bankable projects that attract financial sources either from the multilateral or bilateral agreements for instance. For that you need capacity" (Interview 3).

A second set of challenges concerned levels of coordination between central government and other levels of government (Interviews 2, 4, 7). One interviewee noted that different sectors place differing levels of weight on climate change as a concern: "From the federal level down to the lower level, the focus, or the attention, or the emphasis given to climate change is not equal in all sectors. So, convincing and persuading these different bodies is also another challenge … and unless higher level leaders give emphasis or attention to this issue it cannot be implemented, especially the higher leaders" (Interview 2). Another interviewee noted that at the city level many of the issues related to loss and damage may be dealt with by those on the operations side: "Practically we may be addressing the loss and damage issues, but not in the context of climate change" (Interview 4).

Third, several interviewees mentioned the need to bring a wider array of actors, including the private sector, regional state and city authorities, and affected communities together in thinking about the governance of responses to climate change impacts (Interviews 2, 6). One noted the important role of NGOs and development partners that are involved in land restoration activities in Ethiopia such as the UNDP, the Food and Agriculture Organization, and local NGOs (Interview 3). Another suggested that there should be a clearer sense of the contribution of the private sector, as well as academic, humanitarian, development, and peace actors to the loss and damage conversation (Interview 9). Recent changes in the civil society landscape with the Civil Society Proclamation in 2019 also suggested the potential widening of the civic space which might shape possibilities for domestic civil society organizations to influence the development and implementation of policies related to loss and damage and managing climate risk in the future. Other institutions within government that address the impacts of disasters and aftermaths of emergency situations could also

be useful. In Ethiopia, disaster risk readiness and response mechanisms do try to address the impacts of events such as droughts that are regular occurrences. However, coordination among actors in climate loss and damage and humanitarian assistance and disasters preparedness is still limited.

6.6 IDEAS

The most significant ways in which ideas were seen as relevant to policy development on loss and damage were related to the availability of data and expertise. This concerned both methodologies and research to assess and map vulnerability, particularly in the areas most susceptible to climate impacts. One research participant noted that there was a need for developing a greater understanding of potential solutions to issues related to loss and damage, particularly of solutions that would "facilitate the engagement of the private sector" (Interview 2). Several interviewees suggested the importance of identifying existing indigenous knowledge and gathering community-level data. One research participant from the MoWIE said, "I think it is better to have first-hand data. … Visiting the community and knowing you can find true information there. You can get the real data there" (Interview 8). Another suggested that vulnerability assessments should be undertaken at the local and/or community level because "the highland area and the lowland area may not have the same vulnerability" (Interview 2).

In our conversations there was a sense that the EFCCC would be able to conduct this research if provided with resources to do so. A research participant working on drought noted that collaboration between the EFCCC and the UNCCD had been effective in supporting the development of national drought plans which had involved assessing historic data on climate change and relying on scenario analysis (Interview 3). The interviewee suggested that working with national universities and understanding the economics of land degradation were useful in being able to communicate the value of land restoration in monetary terms: "That kind of research is very interesting for us in order to get real attention from policy or decision-makers in the future" (Interview 3). Another noted that climate policy is often being developed using international research outputs and internationally led inputs but that this can result in a "disconnect between the policy and the science" and that "there is the capacity to develop proper scientific data for policymakers within our country" (Interview 4). One interviewee suggested that it would be useful to develop a national database "where one can easily access and use the different researches [research outputs] carried out by different stakeholders so far. Because most assessments are done as beautiful outputs, then they end up on a shelf covered with dust" (Interview 6).

A research participant noted that data from other Sub-Saharan countries can be useful for triangulating information during policy and strategy development to compare where Ethiopia stands. CRGE strategy implementation and

the budget allocation of developing countries toward climate change-related work, the interviewee noted, can be "very important to convince policymakers" (Interview 2). Furthermore, improvement in the knowledge outputs and data could enhance Ethiopia's contribution to group positions and negotiation of key decisions on newer areas of discussions that require data from a variety of countries. The benefit the country will draw from international cooperation in terms of capacity development, technology transfer, and financial support will be dependent on how it can assess and present its needs and gaps.

6.7 CONCLUSION

Table 6.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. The findings in this chapter suggests that while SIDS have led the charge at the international level on raising the issue of climate change loss and damage – which originally tended to be framed around the impacts of sea-level rise and the threat of coastal erosion – there has been growing awareness among policy stakeholders in landlocked states and LDCs of the consequences of climate change. Although considerations of loss and damage are not explicitly mentioned in domestic climate policies, recent engagement with developing adaptation policies suggests that a new stage of climate policymaking, which grapples more explicitly with climate change loss and damage in Ethiopia, may be on the horizon. This shift can be contextualized within the broader evolution of climate policy in Ethiopia.

Ethiopia's growing policy attention on adaptation, adaptation limits, and disaster risk is a result of long-standing international engagement with the issue of climate change impacts, lived experience of managing the consequences of climate change, and a growing perception of new opportunities for tapping into actual and potential international sources of climate finance that could facilitate domestic objectives around capacity-building and/or using new technologies to build climate resilience, address internal displacement, and grapple with the myriad losses and damages already being felt in the country across sectors including agriculture, transport and infrastructure, and economic development.

Important challenges and questions remain. Although climate change policy has been a priority in Ethiopia for more than a decade now, the country's approach to climate governance is in many ways a half-filled promise, with delays and gaps in implementation and questions about how far-reaching the central state's policies are, particularly into rural and conflict-ridden regions. It is worth noting that the rate of economic growth has dropped significantly as a result of the COVID-19 pandemic and of internal violent conflict in the northern regions of Tigray, Afar, and Amhara. The country's leadership has other urgent issues that it is grappling with, meaning that less attention is being directed toward climate policymaking.

TABLE 6.1 *Summary of Ethiopia*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas

• Changing rainfall patterns, heavy rainfall
• Flooding
• Soil erosion
• Droughts and extensive dry periods
• Climate-sensitive diseases
	• Environmental policy (1997)
	• 5-year Growth and Transformation Plan (2010)
	• New development plans in 2016 and 2020
	• CRGE development strategy (2011)
	  ○ Green Economy Strategy
	  ○ Climate Resilient Strategy
	• Loss and damage not explicitly mentioned in policies but notions of resilience and transformation are front and center
	• Civil Society Proclamation (2019)
	• NAP (2019)
	• First NDC (2021)
		• UNFCCC
		• UNCCD
		• GGGI
		• Mention of GEF and UNDP (financial and technical assistance)
		• Food and Agriculture Organization and local NGOs
			• Awareness of the problem of climate change has increased among officials from nearly all ministries and levels of government as well as across international organizations based in Addis Ababa
			• Cross-ministerial approach in 2010 in order to have oversight of the development of Ethiopia's official climate change strategy
			• Problems with limited financial and technical capacities to adequately address loss and damage issues
			• Early climate policies focused on mitigation rather than adaptation
			• Growing policy attention to adaptation needs and efforts and increasing awareness of the manifold impacts of climate change in Ethiopia
			• Growing policy attention on adaptation, adaptation limits, and disaster risk is a result of
				• Many policy stakeholders are familiar with loss and damage concept through engagement at the UN level
				• A shift from a relatively single-minded focus on mitigating greenhouse gas emissions as the economy grows to an increasing emphasis on adaptation responses
				• Policymakers are aware of the reputational and potential financial benefits of engaging with the issue of climate change impacts at the international level
				• In contrast to early domestic policymaking on climate change being driven by engagement at the international level, more recent policymaking efforts, including the growing importance of adaptation and awareness of adaptation limits, are driven by growing awareness and experiences of the impacts of climate change at home

- now long-standing international engagement with climate change impacts
- lived experience of managing consequences of climate change, including, e.g., droughts, floods, and landslides
- growing perception of potential new opportunities for tapping into actual and potential new international sources of climate finance that could facilitate domestic objectives around building climate resilience, addressing internal displacement, and grappling with the myriad losses and damages already being felt in the country across sectors, including agriculture, transport and infrastructure, and economic development

- Implementation gaps, especially in rural areas
- Need for a bigger role of more stakeholders, e.g., private sector, regional state and city authorities, affected communities, and NGOs
- Role of Ethiopia in highlighting the plight of landlocked countries in the face of climate change loss and damage thereby challenging a narrow framing of loss and damage as a SIDS issue in that arena
- Need for more research, data, and expertise on loss and damage, especially local and indigenous knowledge
- Need for better understanding of potential solutions to issues related to loss and damage
- Data from other Sub-Saharan countries can be useful for triangulating information during policy and strategy development to compare where Ethiopia stands

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7

Loss and Damage Policy in Bangladesh

From Domestic Challenges to Global Engagements

Douwe van Schie, Md Fahad Hossain, and Nusrat Naushin

7.1 INTRODUCTION

Bangladesh is often regarded as a role model in disaster reduction and preparedness (Government of Bangladesh 2022a; Kazi 2020), especially in reducing deaths and injuries from rapid onset disasters (Government of Bangladesh 2021a). However, the country still faces tremendous losses and damages. These are increasing as climate change intensifies the severity and frequency of rapid onset events, such as cyclones and floods (IPCC 2023). Similarly, the emergence and intensification of slow onset events (SOEs), such as salinity intrusion, rising sea levels, and changing precipitation patterns, further impact life in Bangladesh (Huq 2001; Mallick et al. 2022). Bangladesh is part of the Least Developed Countries Group on Climate Change (LDC Group) and was ranked as the seventh most affected country in terms of loss and damage from extreme weather events between 2000 and 2020 in the Climate Risk Index of 2021 (Eckstein et al. 2021).

In response, the government has introduced a wide-ranging portfolio of plans, funds, actions, and specific ministries to address disaster impacts and mainstream climate action into existing policies, including: the Cyclone Protection Programme (CPP), which ensures rapid dissemination of early warning systems, the availability of cyclone shelters, and post-disaster rehabilitation; the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), which was formulated to enhance strategic planning and to build the country's capacity and resilience to address climate change; the Climate Change Gender Action Plan (ccGAP), which seeks to mainstream gender in climate change; and the Mujib Climate Prosperity Plan (MCPP), which focuses on socioeconomic development that integrates climate resilience and low-carbon growth. The national budget allocated to managing climate and disaster risks between 2020 and 2021 was estimated at approximately USD 2.91 billion.

The government is gradually increasing the amount of funding to cope with disaster risk (Government of Bangladesh 2021a, 2023). These significant allocations to respond to the impacts of climate change divert funding from other governmental purposes, such as increasing innovation, education, and socioeconomic development (Interview 2, see also Government of Bangladesh 2021a, 2023).

However, the government's efforts do not meet the scope of on-the-ground needs connected to the impacts of rapid and slow onset hazards, such as rebuilding infrastructure after cyclones (Bianchi & Malki-Epshtein 2021), relocation due to sea-level rise (Magnan et al. 2016), and increasing healthcare costs after flooding (Kabir et al. 2016). Consequentially, Bangladeshi households bear the brunt of significant impacts and must spend parts of their incomes to minimize and address losses and damages (Interview 2, see also van Schie et al. 2022, 2023b). Additional funding is needed to thoroughly address on-the-ground needs and ensure that the climate-related costs do not impede the wellbeing of Bangladesh's citizens nor the country's development. Nongovernmental organizations (NGOs) in Bangladesh push the government to adopt the terminology of loss and damage and encourage them to advocate for finance for loss and damage on an international level. Although the government is vocal on climate change issues and loss and damage at the international level, it has not integrated the terminology "loss and damage" within its own policies.

This chapter draws on a review of relevant policy documents of national plans by the government and semi-structured interviews with key public and civil society actors to analyze national-level engagement with loss and damage from climate change in Bangladesh. Section 7.2 shows how Bangladesh's exposure to various rapid and slow onset hazards and vulnerability causes an increasing range of loss and damage. It illustrates that large-scale responses to climate-related hazards can inflict further harm. Section 7.3 outlines the climate change-related policy landscape in Bangladesh by focusing on different ministries and national funds. It finds that virtually all ministries in Bangladesh have a role in averting, minimizing, or addressing loss and damage, especially the Ministry of Environment, Forest, and Climate Change (MoEFCC) and the Ministry of Disaster Management and Relief (MoDMR), yet the concept "loss and damage" is not integrated in national policy. Section 7.4 shows that the government actively engages with the global climate policy arena, specifically acknowledging the need for loss and damage action at the international level. However, the government does not always have the capacity to fully interact with international regimes, such as the Sendai Framework for Disaster Risk Reduction (SFDRR). Section 7.5 demonstrates how, besides the government, various other actors and institutions in Bangladesh engage with loss and damage. NGOs and the private sector can play different roles regarding advocacy and implementation of loss and damage-related activities. This section further highlights the role of MoEFCC and MoDMR and how political will is crucial in establishing national-level loss and damage policy. Section 7.6 explores the

potential ideas for shaping loss and damage policy responses at the domestic level, focusing on improved data collection and a national mechanism for loss and damage.

7.2 NATIONAL CIRCUMSTANCES

Bangladesh is primarily situated in the Ganges–Brahmaputra–Meghna delta. Most of the water from the Himalayan mountain range and Indian Meghalaya hills is transported through innumerable rivers to the Bay of Bengal (van Schendel 2020), which demarcates the southern border of Bangladesh (Government of Bangladesh 2018). Most Bangladeshis rely heavily on these rivers, in particular for agriculture – a sector in which a significant share of the total population is employed (Rahman 2017). The country's overall size is 147,570 square kilometers; this land is shared by over 170 million people, making Bangladesh one of the most densely populated countries in the world (Government of Bangladesh 2018; United Nations 2022).

The southern coast of Bangladesh is subject to SOEs, including sea-level rise, a significant driver of displacement, as well as riverbank erosion (Kaiser 2023; Mallick & Mallick 2021). The country is also subject to increasingly frequent rapid onset disasters, such as cyclones and floods, which displace an estimated 700,000 Bangladeshis per year (Smith & Henly-Shepard 2021). Over the past twenty years, the country has experienced a series of devastating cyclones, including Cyclone Sidr in 2007, Cyclone Aila in 2009, and Cyclone Amphan in 2020 (Amin & Shammin 2022; Government of Bangladesh 2008), which all made landfall in the coastal south and resulted in significant loss of lives and mental health impacts among local residents (Amin & Shammin 2022; van Schie et al. 2022).

Historically, floods have also been part of everyday life in Bangladesh (van Schendel 2020). Twenty to thirty percent of the country is inundated during a year with typical flood patterns (Government of Bangladesh 2018). This is reflected in the Bangla language, where the word *borsha* refers to the monsoon season and the rains that it brings, which can be essential for the growth of crops such as rice, jute, or sugarcane, and the term *bonna*, which refers to floods that people cannot easily adapt to (Hofer & Messerli 2006; Paprocki 2021). These floods can be abnormal in magnitude, depth, timing, or duration, resulting in widespread devastation (Hofer & Messerli 2006). Even societies in regions with low exposure to cyclones and floods are affected by climate change, as precipitation and temperature patterns change. This profoundly impacts rice cultivation, an agricultural practice that has traditionally been closely tied to Bangladesh's distinct seasons (Salim et al. 2020).

Impacts from climate-related hazards differ per household, as inequality and marginalization affect the scale of vulnerability of people in Bangladesh (Kuran et al. 2020; Reggers 2019). For example, preexisting cultural and patriarchal norms in Bangladesh make girls and women more vulnerable to the impacts of

climate change than boys and men (Ferdous & Mallick 2019), and the marginalization of lower-caste Hindus has reduced their adaptive capacities (Pender 2010). Loss and damage impedes the economic development potential of poor households trying to break generational poverty cycles, setting them back further disaster by disaster (Government of Bangladesh 2021a; Otto et al. 2017).

Bangladesh's history of poverty and environmental disasters has received vast attention from the national government, NGOs, civil society organizations (CSOs), and international development agencies (Paprocki 2021), resulting in large-scale adaptation projects that aim to reduce people's vulnerability to climate change. An early project is the CPP, established in 1972 by the Bangladeshi government, the United Nations, the International Red Cross, and the Bangladesh Red Crescent Society (Habib et al. 2012), which instigated early warning systems, search and rescue, evacuation, sheltering, first aid, relief distribution, and rehabilitation activities. Large-scale adaptation projects, however, are mostly engineered, and structural solutions can overlook local dynamics and rebound local climate vulnerability (Rahman & Hickey 2019). For example, thousands of kilometers of embankments were constructed to confine river flows and permit intensified agriculture under plans such as the Flood Action Plan of 1990 (Government of Bangladesh 2018; Hofer & Messerli 2006). These embankments, which create a false sense of security for the people who are dependent on them, are however often poorly maintained, leading to further waterlogging (Dewan 2022; Paprocki 2021).

Magnan et al. (2016) state that increasing climate resilience by upgrading roads, bridges, culverts, and markets can effectively increase resilience and reduce out-migration in coastal regions. However, encouraging the resident population to stay in a hazardous area can cause additional harm (Magnan et al. 2016). One example of maladaptation – creating conditions that worsen vulnerability to climate change impacts – is the intensification of shrimp farming, promoted by international agencies as a livelihood option in the face of increasing salinity levels (Paprocki 2021). This practice has resulted in an inability to cultivate vegetables and has increased incidences of skin diseases (Sen 2023; van Schie et al. 2022). These examples show that even if there are resources to minimize or address loss and damage, doing so without accounting for complex socioeconomic and environmental dynamics and long-term implications can be ineffective or even cause additional harm.

7.3 POLICY LANDSCAPE

Initial environmental development plans, such as the Flood Action Plan, have grown into a wide range of policies and legal instruments for disaster management and which overlap with endeavors to deal with loss and damage. Virtually all ministries are involved in climate change, but few focus entirely on climate change and disasters (Haque et al. 2019). This section gives a broad overview of how different ministries are involved with climate change and

looks at climate change-related activities under the two ministries that are in theory most responsible for responding to loss and damage: the MoEFCC (which was called the Ministry of Environment and Forest until 2017), which in climate-related activities mostly focuses on adaptation, and the MoDMR, which focuses on disaster risk reduction. The term "loss and damage" does not feature in plans, funds, or policies initiated by the MoEFCC or MoDMR, indicating that the topic has not been mainstreamed, leaving a gap between international and national policymaking. However, we do find some evidence that this is changing. For example, the term has been integrated in the recent MCPP, where the national government emphasizes the need to avert and minimize loss and damage.

7.3.1 The Ministerial Level

The all-encompassing impact of climate change in Bangladesh means that all nation-building ministries respond to loss and damage. As one interviewee noted, "Schools are destroyed, so now we have to build schools with open ground floors due to flood[s] … so even education is involved" (Interview 3). The *Climate Finance for Sustainable Development Budget Report 2021–22*, published by the Ministry of Finance (MoF; Government of Bangladesh 2021a), shows that 7.26 percent of the annual budget of twenty-five ministries and divisions in Bangladesh is allocated to climate-relevant activities (see Table 7.1). Most of these allocated funds are spent on food security, social protection, health and infrastructure, and mitigation and low-carbon development to avert and minimize loss and damage. The budget report uses the term "damages and losses" to describe the impacts of climate-related disasters.

Table 7.1 shows how the Ministry of Agriculture has allocated a significant share of its budget to climate change-relevant activities, which include research, education, training, and irrigation programs (Government of Bangladesh 2021a). It developed the Climate Resilient Crop Variety and Technology Development Policy in 2010 and the National Agriculture Policy in 2018, which includes a dedicated section on developing climate stress-tolerant crop varieties. A similar percentage of the Ministry of Water Resources budget is relevant to climate change, including flood control and warning; preventing river erosion, waterlogging, salinity intrusion, and desertification; and research (Government of Bangladesh 2021a). It adopted the Master Plan of Haor Areas in 2012, highlighting climate change as a significant concern for Haor regions and recognizing the need for further study on the impacts of climate change in that area.[1] The climate change-related activities of the Local Government Division, which aims to strengthen local government systems, largely revolve

[1] These regions can be characterized as seasonal wetlands essential for biodiversity, agriculture, and local livelihoods, filling with water during monsoon.

TABLE 7.1 *Climate and disaster budget allocation by ministry or division, 2021–2022 (Data: Government of Bangladesh 2021a)*

#	Ministry/division	Climate-relevant allocation (in crore taka)	Climate-relevant allocation (in bn USD)	% of total budget
1	Agriculture	5,800.08	0.67	35.80
2	Water Resources	2,833.90	0.33	32.11
3	Local Government	2,752.25	0.32	7.02
4	Science and Technology	2,676.17	0.31	12.62
5	Disaster Management and Relief	2,458.22	0.28	24.70
6	Primary and Mass Education	1,821.99	0.21	6.92
7	Power Division	1,070.74	0.12	4.22
8	Fisheries and Livestock	1,059.67	0.12	30.83
9	Health Services	709.10	0.08	2.74
10	Women and Children Affairs	546.39	0.06	13.04
11	Secondary and Higher Education Division	509.58	0.06	1.40
12	Food	469.64	0.05	2.64
13	Housing and Public Works	445.70	0.05	7.02
14	Shipping	444.46	0.05	8.65
15	Environment, Forest and Climate Change	379.21	0.04	31.02
	Other ten ministries (average)	*144.88*	*0.02*	*4.125*

around flood control and irrigation and include the development of rural infrastructure (Government of Bangladesh 2021a). Besides these, various other ministries focus on social protection, for example, ensuring education during disasters and increasing healthcare for those extremely vulnerable to climate change (Government of Bangladesh 2021a). These are often part of the so-called social safety net programs undertaken by various ministries to assist the poor and the disadvantaged (World Food Programme 2022).

The MoF published the Climate Fiscal Framework (CFF) in 2014, which followed a recommendation in the 2012 Climate Public Expenditure and Institutional Review. The policy provides "principles and tools for climate fiscal policy-making, helping to identify the demand and supply sides of climate fiscal funds" (Government of Bangladesh 2014, p. 1). It also recommends a set of codes to monitor climate-related expenses to (a) facilitate policy analysis and reporting on climate change expenditures and (b) identify potential climate-related public expenditures across different government ministries to assess long-term climate finance needs (Government of Bangladesh 2014, p. 1). The CFF was updated in 2020 in an attempt to be more citizen-centric and highlight the role of the private sector, NGOs, and CSOs. It includes fiscal

policies such as tax, subsidy, pricing, lending, and insurance policies. The updated CFF focuses on the supply side of climate finance, considering the country's vulnerability to climate change and the risks of loss and damage (Government of Bangladesh 2020a).

7.3.2 The MoEFCC

The MoEFCC leads Bangladesh's climate change policy discourse. The ministry adopted the National Adaptation Programme of Action (NAPA) in 2005, the first dedicated governmental policy document to address climate change (Government of Bangladesh 2005). Bangladesh was one of the first nations to develop a NAPA, largely because it was a requirement to access funds from the Least Developed Countries Fund. The initial version of the NAPA consisted of fifteen project ideas to meet urgent and immediate adaptation needs. When the NAPA was revised in 2009, its focus shifted to addressing more comprehensive adaptation needs in the medium and long term, recognizing the longevity of climate impacts (Government of Bangladesh 2009b).

In 2008, the MoEFCC formulated the BCCSAP, which builds on the revised NAPA (Government of Bangladesh 2009a). This overarching strategic document still guides climate change governance in Bangladesh and includes the following six themes: (a) food security, social protection, and health; (b) disaster management; (c) infrastructure; (d) research and knowledge management; (e) mitigation and low-carbon development; and (f) capacity-building and institutional strengthening. It is comprised of forty-four programs to be executed in the short, medium, and long term. Twenty-four government ministries, agencies, and NGOs were made responsible for implementing these programs (Government of Bangladesh 2009a).

The primary focus of the BCCSAP is adaptation to climate change. However, it does encompass elements of loss and damage, such as a program to manage the risk of loss of income and property within the theme of comprehensive disaster management. This program aims to establish an efficient insurance system for risk management by collaborating with NGOs and insurance companies (Government of Bangladesh 2009a). The process of updating the BCCSAP started in 2018, but an interviewee mentioned that it will likely not explicitly mention loss and damage: "I have got the opportunity to go through an initial version of the updated action plan; in this version, loss and damage was not fairly captured" (Interview 4).

The MoEFCC developed the ccGAP in 2013, recognizing Bangladesh's vulnerability to climate change impacts, the unique vulnerability of girls and women, and the potential for women to participate in decision-making and implementation processes related to building a climate-resilient future (Government of Bangladesh 2013). However, a review by the International Centre for Climate Change and Development shows that ministries have not aligned their work with the ccGAP and that no practical guidance exists for

sectors to be able to take up the actions (ICCCAD n.d.). Similarly, gender equality is prioritized in the NAPA, but the plan does not include women as stakeholders in the proposed adaptation measures (Alston 2015). An analysis of national policies by UN Women and the International Union for Conservation of Nature (2022, p. 80) draws a similar conclusion, highlighting that "most activities only managed to become gender-sensitive from being gender-blind … integration of gender into climate-specific policies and in relevant sectoral policies remains inconsistent." Moreover, the analysis shows that an intersectional perspective is almost entirely absent across policy documents; women are referred to as a homogenous group with no analysis of income and religious or ethnic minorities (UN Women & IUCN 2022).

In 2022, the MoEFCC adopted the National Adaptation Plan (NAP) of Bangladesh (2023–2050) (Government of Bangladesh 2022c). The primary aim of the NAP is to build a climate-resilient nation through adaptation strategies. The first goal of the NAP includes a reference to loss and damage, but it is aimed at *minimizing* loss and damage instead of *addressing* it: "enhancing overall climate resilience through effective adaptation measures that minimize losses and damages and support natural resources management" (Government of Bangladesh 2022c, p. 8).

7.3.3 The MoDMR

The MoDMR oversees disaster management activities in Bangladesh. The ministry has adopted several plans, policies, and laws to address climate change's impacts, the cornerstone being the Disaster Management Act of 2012. The Act aims to coordinate and improve disaster management activities and create infrastructure to respond to not only climate-related disasters, such as cyclones and floods, but also non-climate-related disasters, including earthquakes. It acknowledges the effects of climate change in the purview of the definition of disasters. It provides guidelines for setting up an institutional mechanism for disaster management, reducing vulnerabilities, providing aid to those affected by disasters, and rehabilitation. The Act also calls for establishing the Disaster Management Research and Training Institute to research disaster and climate change effects and increase capabilities.

The MoDMR implemented the National Disaster Management Policy in 2015 and the National Plan for Disaster Management (NPDM) (2021–2025) in 2020 to achieve the objectives of the Disaster Management Act (Government of Bangladesh 2020b). The NPDM builds upon previous plans from 2010 to 2015 and 2016 to 2020. It aims to improve the following five stages of disaster risk management: disaster risk reduction, disaster preparedness, early warning, emergency response, and recovery, rehabilitation, and reconstruction. It was formulated in accordance with international frameworks, such as the SFDDR, the Paris Agreement, the Sustainable Development Goals, the Asia-Pacific Regional Action Plan for Disaster Risk Reduction (2016–2030), and

national policies, such as the Bangladesh Delta Plan 2100, the Perspective Plan of Bangladesh 2021–2041, the Eighth Five-Year Plan, and the BCCSAP 2009 (Government of Bangladesh 2020b).

Policies developed by the MoEFCC and MoDMR rarely include actions on addressing internal displacement. The NAPA, for example, contains no measures to address displacement (Government of Bangladesh 2005, 2009b); the BCCSAP has not prescribed any action plans for the issue other than monitoring (Government of Bangladesh 2009a); the Disaster Management Act of 2012 does refer to resettlement and to planned relocation in the context of rehabilitation but provides no clear guidance on how to do so; and the Standing Orders on Disaster, a policy document by the MoDMR which outlines the roles and responsibilities of institutions concerning disasters, primarily focuses on emergency shelters (Government of Bangladesh 2020b, n.d.-a).

The MoDMR has recognized the inadequacy of existing policy and legal frameworks to address internal displacement. In 2015, it formulated the National Strategy on the Management of Disaster and Climate-Induced Internal Displacement, which was updated in 2020 (Government of Bangladesh 2020b). This strategy sets out how the government will handle the increasing internal displacement caused by disasters, intending to provide a complete and organized response to the needs of displaced individuals and communities to reduce their vulnerability and enhance their quality of life. Plans such as the BCCSAP, NAPA, ccGAP, and the NPDM often cover climate impacts from both rapid and slow onset events. However, there is a disproportionate focus on economic loss and damage, such as losses of livestock or agriculture (Haque et al. 2019). Only some noneconomic loss and damage, such as harms to human health or biodiversity, are considered. However, others – such as negative impacts on religion, culture, or education – only commonly feature in disaster-related plans and policies. Moreover, the MoDMR does not always account for SOEs (Haque et al. 2019), resulting in incomplete responses to loss and damage.

7.3.4 National Climate Funds and the MCPP

The government and international actors have recognized the growing costs of climate-related hazards and the lack of support from international agencies in Bangladesh. Consequentially, two climate change funds were established in 2010: the Bangladesh Climate Change Resilience Fund (BCCRF), which was closed after June 2017, and the Bangladesh Climate Change Trust Fund (BCCTF), which was established through the Climate Change Trust Act of 2010 to redress the adverse impacts of climate change (Government of Bangladesh 2016). The national revenue budget fully funds the BCCTF through an annual allocation block, which is approximately USD 100 million annually (Khan et al. 2012). The Climate Change Trust Act specifies how 66 percent of the BCCTF resources is used for implementing projects and programs in line with

the BCCSAP; the remaining 34 percent is kept as an interest-bearing deposit (Government of Bangladesh 2016).

The MCPP, published in 2021, aims to shift Bangladesh's climate trajectory from "one of vulnerability to resilience to prosperity" (Government of Bangladesh 2021b, p. 8). It mentions loss and damage explicitly: 2.6 percent of a USD 80 billion investment to reach climate resilience is allocated to loss and damage. Moreover, in the prosperity plan, the government mentions the importance of "planetary justice and climate equity where vulnerable countries like Bangladesh are assisted with requisite finance and technology to meet development aspirations" (Government of Bangladesh 2021b, p. 6) and recognizes that to effectively avert and minimize impacts from climate-related disasters a dedicated financing mechanism for loss and damage is needed. However, the focus on loss and damage is on averting and minimizing loss and damage, with little attention paid to addressing impacts that have already occurred: "Minimizing and averting loss and damage is at the heart of this plan" (Government of Bangladesh 2021b, p. 6).

7.4 INTERNATIONAL ENGAGEMENT

Bangladesh has engaged extensively with climate change policy at the international level, partly by positioning itself as a leader in climate adaptation and also by advocating for loss and damage support and finance through its involvement in the United Nations Framework Convention on Climate Change (UNFCCC) processes and the Climate Vulnerable Forum (CVF). The country signed the UNFCCC when it was adopted in 1992. Over the years, Bangladesh has proactively engaged with various other international bodies, such as the SFDRR and the Green Climate Fund (GCF).

7.4.1 UNFCCC Involvement

Bangladesh submitted its original Nationally Determined Contribution (NDC) in 2015 (Government of Bangladesh 2015) and a revised version in late 2021 (Government of Bangladesh 2021c). The NDC largely reflects the government's approach to climate change mitigation. While it outlines fourteen priorities for adaptation in ten key areas (Government of Bangladesh 2015), loss and damage, or any additionality concerning adaptation, was not mentioned in the first version of the updated NDC submitted in 2021 (Government of Bangladesh 2021c). As one interviewee noted, this was potentially due to a fear of diverting attention from adaptation action (Interview 4). More recently, the government made a submission regarding the Glasgow Dialogue (Government of Bangladesh n.d.-b).

The MoEFCC serves as Bangladesh's institutional focal point for the UNFCCC process, and it leads the international negotiations for the country as part of its remit. Bangladesh has consistently played an important role

in advocating for addressing loss and damage over the years, but there is some ambivalence in the approach in terms of whether the country wants to present itself as a "victim" or whether it wants to emphasize its long experience with disaster risk management and resilience-building. For example, Bangladesh has regularly used the term "compensation" in its submissions to the UNFCCC. At the eleventh Conference of the Parties (COP11) in Montreal in 2005, Bangladesh, on behalf of the LDC Group, called for compensation for damages caused by climate change (Vanhala & Hestbaek 2016). In 2009, the country asked for a "rapid financing window for addressing resource needs to cope with the aftermath of extreme climate events, including [a] compensation mechanism" in a UNFCCC submission for the Bali Action Plan (UNFCCC 2009, p. 28). The country endorsed a proposal for incorporating a loss and damage mechanism in adaptation texts at COP15 in Copenhagen and added that loss and damage should be separate from adaptation (Vanhala & Hestbaek 2016).

Bangladesh showcased its pavilion for the first time at COP25 in Madrid, which helped represent its narrative as an "adaptation capital" (Khan 2019), further solidifying the country's position as a role model in terms of disaster reduction and preparedness (Government of Bangladesh 2022a). The Ministry of Foreign Affairs is also engaged in loss and damage conversations at the international level (Islam 2018). For example, the foreign minister attended COP27 in Sharm el-Sheikh, urging the international community to take action on climate-induced migration and to mainstream the issue in the negotiations (Government of Bangladesh 2022b). Despite this strong presence in the negotiations, one interviewee repeatedly emphasized that Bangladesh's influence on negotiations largely rests on individual personalities rather than an institutional approach: "Individual Bangladeshi negotiators and politicians have played a key role in the negotiations at the UNFCCC level at different times" (Interview 1).

7.4.2 Other International Regimes

7.4.2.1 The Sendai Framework for Disaster Risk Reduction

The SFDRR was initiated in 2015 to understand disaster risk and improve risk governance. Bangladesh, like other countries, committed to introducing interventions according to the framework's goals, objectives, and priorities to enhance disaster risk reduction locally. The MoDMR serves as the focal ministry for implementing the policies related to the SFDRR. The framework includes four priority areas, but only the fourth concerns *addressing* loss and damage: enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction (UNDRR 2015). Bangladesh has made substantial progress in aligning disaster responses with the SFDRR priority areas, but there is scope for improvement, especially "in regards to operations and accountability" (Chisty et al. 2022, p. 7). Chisty et

al. (2022) show, concerning the fourth priority area, strengths in Bangladeshi policies and regulations are the inclusion of marginalized populations and the collection of damage and needs data. Weaknesses include a strong dependency on international aid and a lack of authoritative officials for disaster rehabilitation at the local level.

7.4.2.2 The Green Climate Fund

Under the MoF, the Economic Relations Division is the National Designated Authority, which serves as the interface between Bangladesh and the GCF. The year 2018 saw the creation of the GCF Country Programme for Bangladesh, which outlined the country's priorities for projects and programs related to climate change adaptation and mitigation. Two organizations – the Palli Karma-Sahayak Foundation (PKSF) and Infrastructure Development Company Limited (IDCOL) – received accreditation as National Implementing Entities of the GCF. PKSF focuses on adaptation while IDCOL is more specialized on mitigation. Other public and private entities in Bangladesh, BCCTF and BRAC (previously Bangladesh Rehabilitation Assistance Committee), are currently in the process of applying for GCF accreditation. Bangladesh is equipped to access GCF finance through several policies and strategies dedicated to climate action, such as the NAPA in 2005 (revised in 2009); the BCCSAP 2009; the Third National Communication under the UNFCCC and the NDC under the Paris Agreement; and the GCF Country Programme. The GCF has enabled finance for projects in Bangladesh, such as a grant awarded to the German Development Bank to build climate-resilient infrastructure (KfW 2018; Schalatek et al. 2016).

Despite having policy-related and institutional advantages, Bangladesh faces substantial challenges in terms of accessing the GCF (Ahmed & Uzzaman 2020; Yusuf 2022). The GCF has complex evaluation processes and little sensitivity to country contexts (Kumar 2015). A lack of technical and financial capacities by least developed countries (LDCs) and Bangladesh's inadequate fiduciary standards (Yusuf 2022) all act as a barrier to accessing the fund. Bangladesh also lacks historical data and statistics on climate parameters, which makes it difficult to substantiate whether an incident is caused by climate change or is a regular phenomenon. Hence, developing the systems and capacities to substantiate Bangladesh's claims and tap into international climate finance is essential.

7.4.2.3 The Climate Vulnerable Forum

The CVF is an international partnership of highly climate-vulnerable countries founded in 2009 (V20 2022). Composed of over fifty members, it aims to build cooperation, knowledge, and awareness of climate change issues (V20 2022). Bangladesh held the presidency of the CVF from 2011 to 2013 and 2020 to 2022, with Bangladeshi Prime Minister Sheikh Hasina chairing the international coalition. Under Bangladesh's presidency, one of the priorities of the CVF was "scaling-up efforts to address loss and damage and to support

people displaced by climate threats and establish international responsibility for displaced communities" (V20 2022, p. 17). Moreover, before COP26, it called for the operationalization of the Santiago Network and a dedicated finance facility to address loss and damage (Climate Vulnerable Forum 2021). In response to minimal progress on these goals at COP26, the coalition initiated a "payment overdue" campaign ahead of COP27 in 2022. Eventually, the finance facility for loss and damage was established in the final days of the negotiations in Sharm el-Sheikh (UNFCCC 2022). The importance of Bangladesh's involvement with the CVF was highlighted by an interviewee, who noted that the "CVF presidency is another big important factor at the higher political level; as Prime Minister Sheikh Hasina got to understand loss and damage, she became a champion for loss and damage" (Interview 1). The national government also published the MCPP during its second tenure as the president of the CVF, stating that it is part of a wider climate prosperity program to advance CVF and V20 in reaching climate resilience and prosperity (Government of Bangladesh 2021b).

7.5 INSTITUTIONS

Besides government ministries, NGOs, CSOs, and the private sector also play significant roles in addressing climate change in Bangladesh. NGOs perform a key role in implementation, knowledge-building, advocacy, and engaging youth. The latter is an increasing voice in climate advocacy in Bangladesh. For their activities, NGOs are partly dependent on international funding streams. Consequentially, their involvement with loss and damage will increase as the global discourse grows. For loss and damage to be mainstreamed in national policy, either the MoEFCC or MoDMR should adopt the concept. However, and as shown here, several obstacles have obstructed this from happening.

7.5.1 NGOs

In Bangladesh, NGOs substantially influence disaster-related activities locally and nationally. At least 90 percent of Bangladeshi villages have an NGO present (Siddiquee & Faroqi 2016). The most prominent organizations are Grameen Bank, historically a microlending organization (Tanbir & Somani 2020), and BRAC, the world's largest NGO (Paprocki 2021). Historically, NGOs in Bangladesh mainly focused on poverty alleviation, socioeconomic development, and climate adaptation and mostly served rural women (Ayers et al. 2013; Qayum 2021; Siddiquee & Faroqi 2016). Loss and damage-related activities are relatively absent from NGO programs, which one interviewee indicated is due to a lack of international attention: "You will not find a good number of organizations in our region who directly work on loss and damage, because internationally we do not talk about loss and damage, we talk about adaptation" (Interview 3). They later explained that local organizations are

vital in transferring information and actions from the international debate to the local level. In other words, NGOs' significant presence and dependency on international donors mean that on-the-ground action is more likely if the global policy and funding landscapes change.

Partnerships with NGOs have helped to shape the discussion around loss and damage in Bangladesh and other LDCs and significantly advance knowledge on the subject. The government initiated the Loss and Damage in Vulnerable Countries Initiative, which involved bringing together various stakeholders, including researchers, practitioners, legal experts, and policymakers, to promote a better understanding of loss and damage. Under this initiative, an early series of working papers addressed various conceptual and operational topics regarding loss and damage, including the role of the climate regime in handling loss and damage (Verheyen 2012), various approaches to addressing loss and damage in Bangladesh (Faruque & Khan 2013; Nishat et al. 2013), noneconomic loss and damage perspectives (Morrissey & Oliver-Smith 2013), and gender (Neelormi & Ahmed 2013; von Ritter Figueres 2013). These partnerships also produced early thinking on disaster risk reduction and adaptation in the context of loss and damage (Shamsuddoha et al. 2013).

NGOs have also played an important role in advocacy. An interviewee outlined how their organization advocated for over ten years to establish the Disaster Management Act of 2012 by, for example, hosting workshops and mobilizing national media (Interview 2). This type of advocacy has also been pursued on loss and damage by several NGOs and research organizations. Activities include the hosting of a workshop with participation by members from the MoDMR and holding stakeholder consultations to devise a loss and damage strategy (Interview 1). Another initiative is the national mechanism for loss and damage, for which NGOs and research organizations have advocated since at least 2016 (Khan & Hadi 2016). An interviewee remembered the proposal phase:

> We had proposed a two-year action program on exploring all the different aspects of loss and damage. There would be research, examples of insurance, and private sector involvement, and there would be ministry dialogues with relevant ministries. … At the end of these two years, we would examine what we learned and determine the next step in setting up a national mechanism. (Interview 1)

However, advocacy efforts never materialized, partly as key ministerial actors took up new roles and because of considerable resistance from various angles (Interview 1). One interviewee noted that the new political leaders "did not have any knowledge, no awareness of loss and damage. So, we had to work from scratch again" (Interview 1). Nonetheless, there is still political will for establishing a national mechanism. The same interviewee observed that "it has not disappeared, but we need to revive it" (Interview 1).

Another interviewee indicated that the MoEFCC and MoDMR are still "both planning to develop a national mechanism for loss and damage"

(Interview 4). They both noted that the establishment of the loss and damage fund at COP27 could act as a further incentive for the revival of the concept of a national mechanism for loss and damage in Bangladesh (Interviews 1, 4). Moreover, in a recent UNFCCC submission on the Glasgow Dialogue, the government highlights the need for international funding for the preparation of national action plans and strategies (Government of Bangladesh n.d.-b). One of the interviewees also noted that a mechanism should be drafted soon: "Now there is a financial institution to address loss and damage, so now the commitment is serious, and I think that at this time, they will come up with a draft mechanism within short period of time" (Interview 4).

Young people in Bangladesh are playing a significant role in lobbying for climate-related loss and damage policy at the national and international levels. A report by the United Nations Children's Fund states that 91 percent of young people in Bangladesh are eager for their government to take significant climate action, which is significantly higher than the studies' average (UNICEF 2021). Youth-led organizations, such as Fridays for Future Bangladesh and YouthNet for Climate Justice, mobilize thousands of young people to be first responders to climate impacts when they occur (Arannya 2022). They also organize demonstrations, in which they call for the national government to increase its mitigation efforts and express the need for rapid decision-making at the UNFCCC, and prior to COP27 and COP28, they explicitly called for loss and damage finance from historically high-polluting nations (Dhaka Tribune 2023; Jhumu 2022; Rahman 2022). The youth-led organizations receive support from national and international NGOs and have spoken on international podia, such as COP27 (UNICEF 2022).

7.5.2 The Private Sector

In Bangladesh, the private sector, as one interviewee pointed out, is very much impacted by climate change: "Loss and damage happens in the private sector. Small and medium enterprises, cottage industries, poultry, all of these are owned by the private sector, and loss and damage is caused to them" (Interview 3). The private sector is affected not only by direct losses from climate impacts but also by the need to comply with governmental regulations regarding emission reduction and renewable energy (Interview 2). Yet the private sector can also play a role in *addressing* loss and damage through insurance. Two interviewees mentioned that there were several pilots with climate-related insurance in Bangladesh (Interview 1) and that the private banking sector has shown interest (Interview 4). Examples are flood insurance initiated by the Green Delta Insurance Company together with Oxfam Bangladesh, the World Food Programme, and Weather Risk Management Services (Eram 2021). The Green Delta Insurance Company also offers weather-index-based crop insurance, using mechanisms to determine a threshold (e.g., wind speed) and pay damages

based on these metrics (Interview 1, see also Hasan 2019). However, an analysis of a similar pilot by a state-owned insurance company and the Bangladesh Meteorological Department shows a wide range of challenges, such as limited weather data, a costly business operations system, complications with designing insurance products, recruiting qualified personnel, and distrust among farmers (Al-Maruf et al. 2021). An interviewee confirmed this, saying that "they try to solve problems with an insurance-based policy for crops, but they have not succeeded" (Interview 4). They later noted, "If we can remove some of the complexities and administrative procedures, then insurance policies can be improved" (Interview 4). Still, several interviewees stressed the importance of engaging insurance in addressing loss and damage in Bangladesh (Interviews 1, 3, 4).

Besides insurance, entry points for the private sector into climate change in Bangladesh, particularly in the loss and damage discourse, could be providing health and population services (World Health Organization 2008), risk assessments and knowledge generation (Surminski & Eldridge 2013), and enhancing infrastructural resilience (Izumi & Shaw 2014).

7.5.3 Interministerial Dynamics

Our research shows that interministerial dynamics is a key reason why loss and damage as a concept has not been explicitly integrated into national plans. An interviewee noted that "in terms of addressing loss and damage in its totality, the MoEFCC and MoDMR are responsible. They are working separately, so they have different pre- and post-disaster mandates" (Interview 4). Another interviewee mentioned that for loss and damage to be taken up in Bangladesh the bottleneck is "the specific activity and who does it. So, who should lead on behalf of the government? And then, what is that they should do?" (Interview 1). Even though it is a prominent aspect of disaster management, climate change lies in the domain of the MoEFCC (Interview 1), so traditionally, the MoEFCC holds more power regarding international climate change policy. When the MoDMR was interested in working on loss and damage after a workshop hosted by civil society actors, the at the time more influential MoEFCC stated that loss and damage is part of its portfolio alone (Interview 1).

Another obstacle is that a wide range of actors, including ministerial officials, fear that loss and damage will divert attention from adaptation (Interviews 1, 4). This is also a common obstacle in promoting loss and damage worldwide (Calliari et al. 2020). One interviewee observed that a focus on loss and damage might undermine existing resilience efforts:

> Some of our national experts in climate change have a strong reservation about putting loss and damage on the top. They want to be careful about the prospects of loss and damage without undermining the potential funding possibilities for adaptation.

When we are seeking support on loss and damage, it should be on top of adaptation support. It should be new and additional and should not compromise adaptation. Some of our national experts raised this issue during conversations at the national level. We need support and are trying to mobilize our domestic and international resources to address loss and damage, but if we fully devote our time and resources, our climate resilience pathway, which we have been pursuing for many years, can be compromised, or affected. (Interview 4)

Lastly, as outlined in Section 7.5.1, key actors within the government moved to other positions, which made them lose their support base for loss and damage. However, even if a ministry decides to integrate loss and damage within its programs and plans, a mechanism to systematically collect or manage data is yet to be established in Bangladesh.

7.6 IDEAS

The integration of loss and damage within national policies in Bangladesh is likely, especially given the increase in political will resulting from establishing the loss and damage fund at COP27 and the integration of loss and damage with the MCPP by the national government. However, even if there is sufficient political will and funding to address loss and damage, substantial progress is to be made to do this in an effective and fair manner.

7.6.1 The National Mechanism

The current vision for a national mechanism for loss and damage in Bangladesh is a well-coordinated partnership between governmental institutions, the private sector, NGOs, and other relevant actors. Where policymakers working on food security, protecting lives, and adaptation all work next to each other in separate silos, with little collaboration or cooperation (Haque et al. 2019), the national mechanism could convene these activities for loss and damage. One interviewee noted the lack of coordination between bodies and the need for a holistic mechanism: "[There are] implications for the health ministry, youth ministry, women and children's ministry, transport ministry, and so on. Unless there is a convening body which would come under a nationally coordinated mechanism, we will see major lags" (Interview 2). A scoping study was conducted in 2016 for developing a national mechanism for loss and damage in Bangladesh by Huq et al. (2016). In order to ensure coordination, it suggested the establishment of a national steering committee comprising the highest-level policymakers and experts to provide oversight and guidance to a technical working group in charge of leading thematic works. The study also outlined various functions for the national mechanism including developing sectoral policies, plans, and legislations for loss and damage; research and capacity-building frameworks; tools and methodologies for loss and damage assessment; and nationally appropriate approaches for addressing

noneconomic loss and damage, among others (Huq et al. 2016). A successful national mechanism could also serve as a model for other developing countries, bolstering Bangladesh's position as a global leader in climate response while recognizing that the government does not have enough financial resources to carry out its vision on its own.

When discussing establishing a national mechanism for loss and damage in Bangladesh, an interviewee noted that potential funding from the UNFCCC will be slow (Interview 4), meaning that the government would have to fund the mechanism. Another interviewee described how there briefly was the idea of using the remaining 34 percent from the BCCTF to set up a pilot mechanism addressing loss and damage: "We have 300 to 400 million sitting in the bank untouched. … We have the money, we can start [a loss and damage fund] ourselves. … We [can] develop a mechanism to demonstrate that we know what we are doing" (Interview 1). However, an increase in funds or establishing the mechanism itself does not mean that loss and damage will be addressed effectively and fairly. Bangladesh has made great strides in disaster risk reduction and adaptation, but the often large-scale and technocratic interventions initiated by the government and NGOs have also inflicted further harm on already vulnerable populations (Magnan et al. 2016; Paprocki 2021). Moreover, climate-related policies in Bangladesh do not always analyze gender and lack an intersectional perspective on vulnerability (UN Women & IUCN 2022). Thus, an increase in climate-related interventions could result in additional harm if they do not account for relevant complex socioeconomic and environmental dynamics and long-term implications. Moreover, meaningful participation from particularly vulnerable and marginalized groups is needed to reach fair outcomes.

Therefore, it is essential for Bangladesh to learn from inaccuracies and missteps made in past interventions in the name of adaptation. An interviewee suggested that lessons from social safety net programs could be used to shape activities under a national mechanism: "We can learn lessons from social safety net measures and can put some elements in our national mechanism for loss and damage" (Interview 4). This aligns with findings by Aleksandrova and Costella (2021), who suggest that social protection helps address loss and damage as it reduces socioeconomic vulnerability and increases resilience of the poor and most vulnerable. Moreover, they emphasize that it helps address impacts from SOEs (Aleksandrova & Costella 2021); these impacts are currently overlooked by many governmental interventions in Bangladesh (Haque et al. 2019).

7.6.2 Data

Bangladesh's vast experience in coping with and adapting to loss and damage has resulted not only in various policies, studies, responses, and plans across scales but also in a vast amount of data on climate impacts and responses.

However, no central database exists for disaster statistics and impacts (Chisty et al. 2022). The annual budget report by the MoF only includes ministerial expenditures concerning climate change; it does not account for on-the-ground costs arising from climate-related disasters borne by the private sector or households. The latter have developed a wide range of coping responses, such as buying chemical fertilizers due to decreased soil fertility or medicines to combat water-borne diseases from floods, which puts a further financial burden on people already living in subsistence conditions (van Schie et al. 2022, 2023b). The MoF does indicate that there is flexibility in their methodology to include private sector financing (Government of Bangladesh 2021a).

Reports rarely include comprehensive data regarding the potentially infinite noneconomic losses (Boyd et al. 2021) people face from climate change, which are too complicated to quantify: "There are some losses and damages, particularly noneconomic loss and damage, which cannot be quantified. How can we put value on these noneconomic losses? Especially as each country has different national circumstances and different contexts" (Interview 4). Collecting and analyzing data will help assess the current climate change costs and formulate funds and interventions required to address loss and damage. Moreover, a detailed but holistic dataset will be crucial in applying for loss and damage-related grants, both from current funds, such as the GCF, and potential funding for the loss and damage fund established during COP27. Accurate and comprehensive assessments and valuations of loss and damage are crucial as the absence of more invisible loss and damage, such as noneconomic loss and damage or impacts from SOEs, will result in incomplete response strategies. An interviewee indicated that Bangladesh needs external support with such comprehensive assessments: "In terms of valuing the costs attached to losses and damages, this is an area where researchers and the scientific community should assist" (Interview 4).

An unprecedented number of loss and damage studies and assessments have been conducted in Bangladesh, including studies on noneconomic loss and damages (Andrei et al. 2014; Chiba et al. 2017; van Schie et al. 2022, 2023a), loss and damage from specific events (Rabbani et al. 2013), gender-specific experiences (Ayeb-Karlsson et al. 2023), and ways to address loss and damage (Chiba et al. 2019; Nishat et al. 2013). The data and findings from these reports and assessments could be used in designing a potential national database, given the wide range and dynamics connected to loss and damage they reveal.

7.7 CONCLUSION

Table 7.2 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. This chapter shows that it is currently the national government, the private sector, and the affected households that are bearing the costs of climate change in Bangladesh, one of the world's countries most heavily burdened by severe

TABLE 7.2 *Summary of Bangladesh*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Cyclones • Sea-level rise • Riverbank erosion • Floods • Changes in temperatures and rainfall patterns • Impacts on agricultural practices • Loss of life • Mental health impacts	• NAPA (2005; revised in 2009) • BCCSAP (2008) • ccGAP (2013) • NAP of Bangladesh (2023 – 2050) (2022) • Disaster Management Act of 2012 • National Disaster Management Policy (2015) • NPDM (2021–2025) (2020) • Bangladesh Delta Plan 2100 • Perspective Plan of Bangladesh 2021–2041 • Eighth Five-Year Plan • Climate Fiscal Policy (2014) • Climate Resilient Crop Variety and Technology Development Policy (2010) • National Agriculture Policy of 2018 • Master Plan of Haor Areas in 2012 • National climate funds (BCCRF, BCCTF) • NDCs (2015; updated 2021)	• UNFCCC • SFDRR • The Paris Agreement, the Sustainable Development Goals, the Asia-Pacific Regional Action Plan for Disaster Risk Reduction (2016–2030) • GCF • CVF • Development Banks (GfK, etc.)	• Besides the government, NGOs, and CSOs, the private sector also has a significant role in addressing climate change in Bangladesh. • NGOs in Bangladesh substantially influence disaster-related activities locally and nationally. At least 90 percent of Bangladeshi villages have an NGO present • Civil society actors have advocated for integration within the national policy for decades • There is a lack of clarity on roles and responsibilities of the private sector	• Need for a nationally coordinated mechanism for loss and damage • Need for central database for disaster statistics and impacts

weather impacts. The government has actively advocated for the issue in UNFCCC negotiations, developed new policies domestically, and devised a great range of institutions aiming to avert, minimize, and address loss and damage. These institutions include the MoEFCC and MoDMR, two separate ministries that focus on climate change and disasters and are particularly responsible for developing a wide variety of plans and policies, which mostly revolve around mitigation and adaptation. Measures concerning post-disaster impacts, such as post-disaster compensation, are often undertaken in the name of adaptation or disaster management instead of explicitly referring to loss and damage. These measures tend to focus on economic loss and damage and rapid onset events, such as damage to buildings and infrastructure after cyclones or floods, and overlook noneconomic impacts, such as loss of culture or biodiversity and impacts from SOEs, such as changes in rainfall and temperature.

NGOs have advocated for the government and ministries to integrate the concept of loss and damage more widely into their policymaking, arguing that this would better connect the Bangladeshi discourse with the global climate change debate. This partly succeeded given the integration of loss and damage in the MCPP. However, in the plan, the government emphasizes the need to avert and minimize loss and damage and avoids addressing impacts that have already occurred. Moreover, loss and damage is still absent in the plans of the MoEFCC and MoDMR. Changes in key ministerial posts and interministerial conflicts at least partly explain this disconnect, as well as the fear that a focus on addressing loss and damage diverts attention from adaptation.

Bangladesh has advocated for loss and damage internationally through its CVF presidency and active role in the negotiations. Here, they are accompanied by NGOs and youth groups who advocate for loss and damage action across scales. For example, NGOs have advocated, again relatively unsuccessfully, for the establishment of a national platform for loss and damage. They argue that this could serve as the bridge between national- and international-level loss and damage activities. However, the agreement on a loss and damage fund at COP27 and the operationalization of the Fund at COP28 could have increased the political will within the MoEFCC and MoDMR for a national mechanism. The realization of a national mechanism alone, however, will not effectively and fairly address loss and damage in Bangladesh. To do so will require thorough learning from inaccuracies and unexpected outcomes from past interventions in the name of adaptation and meaningful involvement of particularly vulnerable and marginalized groups. Moreover, the long history of responding to climatic impacts has resulted in vast loss and damage-related data, from estimations of costs on buildings and infrastructures to potential ways of addressing loss and damage. However, there is currently no overarching system for holding, processing, and analyzing data on loss and damage.

Bangladesh's extensive history and experience in adaptation and disaster risk management position the country as a leader in climate change response.

However, as an LDC with a significant portion of the population living below the poverty line, it faces challenges. The increasing frequency and severity of climate-related hazards place additional strain on national resources and the livelihoods of affected communities. Integrating loss and damage into national policies, establishing a fair national mechanism, and creating a comprehensive database of loss and damage data would strengthen Bangladesh's role as both an advocate for loss and damage response and a leader in climate response.

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8

"Money for the Poor"

Perceptions of Loss and Damage in Peru's Emerging Economy

Elisa Calliari and Monserrat Madariaga Gómez de Cuenca

8.1 INTRODUCTION

Peru is one of the countries in Latin America most vulnerable to the impacts of climate change. Its glaciers are melting at an alarming rate, its rich biodiversity is affected by increasing temperature and changing precipitation patterns, and its population is exposed to increasingly frequent and intense floods, droughts, and landslides. Although considered an upper middle-income economy, its inequality and poverty rates are high and concentrated among rural and indigenous populations. Most of these populations rely on subsistence and rain-fed agriculture, and climate change poses significant threats to their livelihoods and food security. Combined with ongoing challenges like deforestation, environmental pollution related to the mining sector, and export-oriented agricultural expansion, climate risks threaten Peru's development (USAID 2017).

Peru's vulnerability to climate change is recognized and highlighted both in the context of national policy processes (Government of Peru 2015, 2018, 2021) and international climate change negotiations (Government of Peru 2016, 2020; Republic of Peru 2015). For instance, in its updated Nationally Determined Contribution (NDC), the country outlines how it features seven out of the nine characteristics recognized by the United Nations Framework Convention on Climate Change (UNFCCC) for "particularly vulnerable" countries: (a) low-lying coasts; (b) arid and semi-arid areas; (c) areas liable to floods, drought, and desertification; (d) fragile mountainous ecosystems; (e) disaster-prone areas; (f) areas of high urban atmospheric pollution; and (g) economic dependence on fossil fuel production, use, and exportation (Government of Peru 2020).

This (self-) recognized high vulnerability to climate change impacts has prompted the country to develop policy instruments to increase climate resilience, including through the National Adaptation Plan (NAP) adopted in 2021

(Government of Peru 2021). Yet despite the particularly severe and potentially irreversible climate change impacts the country is suffering (e.g., glacier retreat), Peru has not yet developed any explicit policies on loss and damage at the national level. Its international engagement with loss and damage is also modest. This is in contrast to proximate Caribbean countries, as well as Bolivia, Venezuela, and Nicaragua, which have taken a climate justice perspective on the loss and damage issue and made explicit international calls for financial compensation for climate-related losses.

This chapter draws on government policy and legislative documents and twelve semi-structured interviews with key public and civil society actors to explore the reasons behind Peru's limited engagement with loss and damage – at both the national and international levels.[1] It identifies two key factors: identity and policymaking politics. With respect to identity, we find that loss and damage is perceived as inconsistent with Peru's status as an upper middle-income country. National actors frame loss and damage compensation as "money for the poor" and therefore see it as an issue for Small Island Developing States (SIDS) and least developed countries (LDCs). There is also a fear that as a middle-income nation Peru might potentially be liable for claims against the nation state for the impacts of climate change. We also find that Peru's extractivist development and economic model is limiting the discussion and uptake of bold climate-related policies, including those dealing with loss and damage. With respect to politics, the chapter shows that the process leading to the adoption of the 2018 Framework Law on Climate Change (Ley Marco sobre Cambio Climático, LMCC) was marred by party politics: There is no reference to loss and damage in the LMCC largely because the proposal to include it came from a minority left-wing party. There has also been a lack of support for loss and damage from civil society organizations, which has further marginalized the topic during policymaking processes.

8.2 NATIONAL CIRCUMSTANCES

Peru's diverse geography translates into thirty-eight different climates, which are grouped into three categories: coast, mountains, and jungle. The coast between the ocean and the Andes is a dry region, with low rainfall except during phases when the climate phenomenon El Niño brings wetter weather. The mountains are a varied climate region that ranges from mild to polar. The jungle is a flat area with abundant rainfall and high temperatures (Government of Peru 2021).

Climate change in Peru has resulted in rising temperatures all over the country, with the largest increases in the Southern Andes (up to 0.3 degrees

[1] All interviews were conducted in Spanish and the responses have been translated by the authors. Quotes from government policy documents have also been translated by the authors.

Celsius per decade since 1981), with this posing particular threats to national glaciers (Bergmann et al. 2021). The country is home to 71 percent of tropical glaciers globally (Kaser 1999), among which the Cordillera Blanca is the largest tropical glaciated mountain range worldwide. Between 1970 and 2000, Peru glaciers shrank by 43 percent (ANA 2014), and climate change is – and will increasingly be – a major driver in the recession. Loss of glaciers' volume is already affecting water storage capacity and modifying the seasonality of runoffs in several Andean catchments (Drenkhan et al. 2015). Moreover, rapid melting is increasing the number and volume of glacial lakes, which – combined with slope destabilization, ice detachments, avalanches, and rock falls – are increasing the risk of glacial lake outburst floods (GLOFs) (Harrison et al. 2018). As an example, recent research around Lake Palcacocha showed that anthropogenic climate change has affected temperature, glacier change, and associated lake growth in the past few decades and thus has increased the likelihood of GLOFs in the downstream city of Huaraz (Huggel et al. 2020).

Glaciers are an important water source for many uses, including human consumption, agriculture, and energy production. The lack of glacial buffers during the dry season will significantly affect downstream users, especially in rural regions (Buytaert et al. 2017). Studies in the Cordillera Blanca also show the potential for severe cultural losses, where glaciers and glacial lakes have religious, spiritual, and identity meanings for local communities (Motschmann et al. 2020; Zommers et al. 2014). Increasing temperature and changing precipitation patterns will also affect the rich biodiversity in the Andes (Báez et al. 2016; Herzog et al. 2011) and in other national biodiversity hotspots, such as the Amazon (CBD Secretariat 2017).

Peru is also exposed to extreme weather events, including floods, landslides, and long-lasting droughts (Government of Peru 2021). Their frequency and/or intensity is compounded by climate alterations, including the El Niño Southern Oscillation, which is expected to increase under future climate scenarios. In 2014, 64 percent of disasters in the country were climate-related, and their number increased by 25 percent compared to 2003 (Government of Peru 2016). Extreme temperatures as well as droughts pose particular challenges to livelihoods, especially in the agriculture sector. More intense rainfall patterns, sea-level rise, and flood events are also increasing the risk of displacement both in coastal zones and Andean regions (Bergmann et al. 2021).

The high reliance of the national economy on ecosystem resources makes Peru's economy particularly sensitive to climate impacts (Government of Peru 2021). Sectors like hydropower generation, agriculture, livestock, and tourism are projected to be severely affected (BID & CEPAL 2014). While systematic and up-to-date economic impact assessments are currently missing, a 2009 study estimated an average annual gross domestic product loss between 7.3 percent and 8.6 percent up to 2050 (Vargas 2009).

8.3 POLICY LANDSCAPE

8.3.1 Recent Climate Policy Developments

Peru published its LMCC on April 18, 2018 (Congress of the Republic of Peru 2018). The process leading to its adoption proved to be long and complex; it featured debates over twenty-two legislative proposals across two parliamentary periods. Twelve legislative proposals were presented for discussion in the 2011–2016 parliamentary period, in the context of a first attempt to pass a climate law while Peru held the presidency of the UNFCCC around the twentieth Conference of the Parties (COP20) (Casavilca 2015). The parliamentary period ended with these proposals still being discussed within the relevant commissions and, following Peru's constitutional law, they did not overrun to the next period. In the 2016–2021 parliamentary period, ten new legislative proposals were put forward, including one from the newly elected government, which had included the adoption of climate change legislation as a commitment during the electoral campaign. The proposals were assigned to a thematic commission – the Commission of Andean, Amazonian and Afro-Peruvian Peoples, Environment and Ecology (Comision de Pueblos Andinos, Amazonicos y Afroperuanos, Ambiente y Ecoligia, referred to here as CPAAA) – which considered them jointly in two steps. First, the CPAAA produced two draft legislative proposals (*predictamenes*), which were discussed by its members. Based on this, a final one (*dictamen*) was put to congress and passed.

The LMCC identifies two key policy instruments for managing climate change, namely the National Strategy on Climate Change (Estrategia Nacional ante el Cambio Climático, ENCC) and the NDC. The current ENCC was adopted in 2015 and "reflects the commitment of the Peruvian State to act against climate change in an integrated, transversal and multisectoral manner" (Government of Peru 2015). It includes two objectives: (a) to prevent the adverse impacts of climate change by reducing the vulnerability of the economy and society, raising awareness among the population, and implementing adaptation actions at appropriate scale and (b) to reduce greenhouse gas (GHG) emissions while taking advantage of the opportunities associated with the transformation of key sectors such as forestry, energy, transport, and industrial and solid waste management. At the time of writing, the ENCC is being updated and its timeframe will extend to 2050 (Government of Peru 2022).

The Peruvian NDC, which was submitted in its updated version in December 2020, builds on two commitments (Government of Peru 2020). First, the mitigation commitment for 2030 includes an unconditional emission cap of 208.8 million tons of carbon dioxide equivalent (a metric used to compare greenhouse gas emissions: $MtCO_2eq$) and a conditional one of 179.0 $MtCO_2eq$ based on the availability of international finance and the existence of favorable circumstances. Some observers, while recognizing that the new mitigation

target is more ambitious than the previous one, stress that it would nevertheless fall short of meeting the 1.5 degrees Celsius temperature goal of the Paris Agreement (Climate Action Tracker 2022). At the same time, it is worth noting that Peru has been one of the first developing countries to commit to a mitigation target despite its low historical and current contribution to global GHG emissions (Pereira 2022). Second, the adaptation commitment prioritizes five thematic areas and related adaptation measures: (a) agriculture, (b) forestry, (c) fishery and aquaculture, (d) health, and (e) water (Government of Peru 2020). In addition, tourism and transport feature in this updated version of the NDC as the two new thematic areas contributing to the overall goal on adaptation. The 2021 NAP is tasked with setting the implementation framework up to 2050.

The LMCC does not include any reference to loss and damage. Yet the issue featured prominently in one of the legislative proposals and was also mentioned in the two *predictamenes* produced by the CPAAA. In particular, the legislative proposal N.729 contained several references to "loss and damage" (*pérdidas y daños*) (e.g., Article 2 and Article 9) and a dedicated loss and damage article (Article 16):

> Article 16 Loss and Damage (*Pérdidas y Daños*). The State, in its three levels of government identifies, reduces and addresses impacts resulting from unforeseen events (such as climate disaster, like intense rain and flooding) as well as slow onset events (such as rising sea level and coastal erosion, desertification and biodiversity loss or drought). The state prioritizes actions to address loss and damage that affect the livelihoods of population, as well as ecosystems and natural systems. Losses are determined in economic and non-economic terms. (Comision de Pueblos Andinos, Amazonicos y Afroperuanos 2017)

During the legislative discussion within the CPAAA, the topic was further developed and directed toward the establishment of a national loss and damage compensation mechanism (Interview 4). The *predictamen* called the Presidency of the Council of Ministers (i.e., the cabinet), in coordination with the disaster risk management authority (Centro Nacional de Estimación, Prevención y Reducción del Riesgo de Desastres) and the civil society–government roundtable for the fight against poverty, to "establish a National Mechanism for Loss and Damage" (Comision de Pueblos Andinos, Amazonicos y Afroperuanos 2017). The reference to compensation, which was present during the discussions, was scrapped as it was seen to have faced opposition by the Ministry of Economy and Finance (Ministerio de Economia y Finanzas, MEF) (Interviews 7, 8). Other legislative proposals also contained references to loss and damage, as reflected in the second *predictamen* produced by the CPAAA which included the term as part of the glossary. However, the final version proposed by the CPAAA did not include any mention of loss and damage and ended up broadly reflecting the government's original proposal. As further elaborated in Section 8.5, party politics played a key role in the exclusion of loss and damage

from the text. The issue had been proposed by a minority left-wing party, and it was not possible to find any convergence with the newly elected conservative government (Interviews 6, 7, 12). Eventually, parties agreed to the text proposed by the government as a way of finding consensus and passing the legislation (Interview 7).

8.3.2 Loss and Damage Policymaking

While many of the current and projected climate change impacts in Peru are consistent with the loss and damage framing at the UNFCCC level (loss of ecosystems services, biodiversity, cultural identity, health, economic losses to agriculture, tourism, and infrastructure), the country has not devised any explicit loss and damage policy package (Interview 9). Even when loss and damage is mentioned in policy documents, this is mostly done in passing and in the context of adaptation measures.

Peru's 2015 intended NDC did not refer to loss and damage or to the Warsaw International Mechanism on Loss and Damage (Republic of Peru 2015). The technical document prepared by the Multisectoral Working Group for the Nationally Determined Contribution, which served as the basis of the 2020 NDC, mentions "*pérdidas y daños*" six times. Yet a closer look reveals that the expression is used to refer to the benefits or co-benefits of adaptation measures in terms of avoided economic impacts. The subsequent 2020 NDC includes a reference to *pérdidas y daños* but again in the context of the role played by adaptation measures in reducing or avoiding "severe alterations" caused by climate risks (Government of Peru 2020). The document refers to losses (*pérdidas*) and damages (*daños*) separately, pointing to economic and noneconomic losses and risks associated with climate change. It also mentions a disaster risk reduction mechanism and governance as key for implementing adaptation policies in order to avert and prevent losses.

The 2021 NAP frames loss and damage in a slightly different way, by explicitly connecting it to discussions under the UNFCCC. The document includes an indicator on "damage, disruptions and losses due to the effects of change" in its monitoring and evaluation system to assess the effectiveness of implemented adaptation measures in reducing climate change impacts on people, natural resources, and economic sectors (Government of Peru 2021). In justifying the inclusion of the indicator, the document notes that *pérdidas y daños* features among "emerging themes in negotiations, research and policy on climate change" and that "it connects the fields of climate change adaptation and disaster risk reduction." It further stresses how adequate assessments are important to "provide a solid foundation to policies aimed at preventing, minimizing and addressing future loss, disruption and damage" and that "the evaluation and reporting of loss and damage is a requirement of the Enhanced Transparency Framework (MTR) under the Paris Agreement" (Government of Peru 2021). This shows an emerging recognition of the link

between international processes and national policymaking. It is worth noting, however, that loss and damage is framed in the document as something that can be reduced by adaptation and disaster risk reduction and not as something requiring additional and ad hoc instruments.

8.4 INTERNATIONAL ENGAGEMENT

Peru engages in the UNFCCC through the Independent Alliance of Latin America and the Caribbean (AILAC), a negotiating group within the UNFCCC including Chile, Colombia, Costa Rica, Guatemala, Honduras, Panama, Paraguay, and Peru. The group was launched in 2012 to differentiate AILAC members from other Latin American players, and in particular from the Bolivarian Alliance for the Peoples of Our America (ALBA) group and Brazil (Edwards et al. 2017). AILAC is characterized by an explicitly conciliatory and constructive approach to negotiations, which calls for ambitious responses to climate change by all parties (thus overcoming the North–South division in climate politics), with developed countries taking the lead and providing adequate financial resources to developing countries to address the issue (Watts & Depledge 2018). As a high-level Peruvian negotiator noted: "AILAC has been more of a facilitator, … a good facilitator, a negotiation block that has been able to bring countries or parties together, more than just put a very specific and concrete domestic question or need" (Interview 2). A key focus for AILAC in negotiations has been mitigation, despite the low GHG contributions from its members. Peru, in particular, has placed attention on reducing emissions from deforestation and forest degradation. This is related not only to the recognition of land-use change and forestry sectors accounting for more than half of GHG national emissions (UNFCCC 2020) but also to opportunities for international support (Pereira 2022), for instance through schemes for "reducing emissions from deforestation and degradation" (Interviews 2, 5). In recent years, adaptation has also become a key concern and the country has considerably advanced in this policy domain (Interviews 2, 3, 4, 8) as the development of the NAP shows.

The Peruvian delegation at the UNFCCC has not yet designated a specific loss and damage negotiator. This is not uncommon for AILAC countries, which usually engage on the topic through AILAC representatives – with the exception of Chile, which has taken a more prominent role in these negotiations since 2019 (Interviews 1, 8; see also Chapter 9 of this volume). One research participant noted that resorting to AILAC is necessary given the complexity of the negotiations and the small size of the national delegation: "I saw the negotiations in 1999. There was a small number of topics. When I came back twenty years later, the number of issues to follow was enormous. For a small delegation it was very difficult to follow. China had 300 people in the delegation. Our voice as a country was taken by AILAC" (Interview 4). Yet another interviewee explained how, within AILAC, Peru does not participate much in

loss and damage discussions and tends to contribute more on issues related to adaptation (Interview 8). Several research participants suggested that loss and damage is not perceived as a priority for the country (Interviews 2, 4, 8) despite the common practice of Peru foregrounding its vulnerability – that is, by identifying itself as a "particularly vulnerable" country – in a number of UNFCCC-related documents (Government of Peru 2016, 2018; Republic of Peru 2015). Yet according to some interviewees, loss and damage is framed as relating to the countries most affected by climate change impacts, "like island states, LDCs, African countries" (Interview 1) and not to a "middle-income country" like Peru (Interviews 2, 4).

Another explanation points to the highly contested nature of the loss and damage issue as perceived by some interviewees. When tracing the emergence of the topic in climate negotiations, a research participant who had a high-level role in the Ministry of Environment (Ministerio del Ambiente, MINAM) describes it as a "political position to balance … the power of negotiations" and for some groups of developing countries "to be defined as a priority to receive … funds" (Interview 2).

It is worth noting that even within AILAC, loss and damage has not featured as a priority until recently (Interviews 1, 4). One research participant suggested that this was because some of the most assertive framings on the loss and damage issue were not seen as consistent with the conciliatory approach to North–South politics characterizing the group since its establishment (Watts & Depledge 2018):

> I wouldn't think that AILAC would have been interested in the historic discussions on loss and damage under the framework of the Convention, because those were clearly, clearly about having a response: compensation and liability. And AILAC … has always been of the view that it is not a beneficial position to make the Global North responsible, or to [take the position that a country will] not do something about climate if the others do not compensate you. (Interview 1)

Yet AILAC's interest in loss and damage is reported to have slightly changed since the establishment of the Santiago Network, which is perceived as bringing the discussions to a "more practical" level rather than one related to "compensation and liability claims" (Interview 1). As one interviewee suggested, states see it as an opportunity to get technical assistance: "Oh wow, it's wonderful. Bring me an expert … now I work on loss and damage" (Interview 1).

8.5 INSTITUTIONS

The development of the 2018 LMCC, and particularly the exclusion of any reference to loss and damage, illustrates the ways national actors (do not) engage with the issue of climate change. Interviewees put forward several understandings for the exclusion of loss and damage from the final text of the law. A first set of interviewees noted that setting up a mechanism like a

national loss and damage fund would have been institutionally difficult to achieve. Reflecting on the development of the climate change law, an interviewee with a high-level position at MINAM recalled: "There was an article on loss and damage but we thought it was not well oriented because it was a national fund on loss and damage. This was a signal of how some people coming from NGOs [non-governmental organizations] see this: It is like a compensation fund. … And to have a national fund on that was complicated" (Interview 4). Another interviewee identified the need for additional public financial resources for setting up a loss and damage fund as a key problem, given the opposition of the MEF to supporting any additional public spending by other ministries irrespective of the issue being addressed: "It is harshly and strongly criticized by the Ministry of Economy and Finance, and it is almost as if it was forbidden, because the first thing they say is that something similar already exists" (Interview 9). The same interviewee also reflected on the relative power of the MEF compared to MINAM, where the former – together with the Ministry of Energy and Mining – is labelled as a "super ministry" while the latter is identified as a "third-order ministry" despite "the enormous goodwill" of its officials (Interview 9). Another research participant noted that MINAM "is a relatively young institution that has been there for more or less twelve or thirteen years, against forty years of exploitation and execution of extractive activities in Peru" (Interview 5).

Party politics is a second explanation for the lack of engagement with the concept of loss and damage in Peru. The LMCC was adopted after the 2016 general elections, which brought Pedro Pablo Kuczynski from Peruanos por el Kambio (PPK) – a conservative, center-right party – into power as the president and resulted in Fuerza Popular – a fujimorist, populist, and conservative party – dominating congress, with 73 seats out of 130. The legislative proposal (Number 729), which explicitly referred to loss and damage, was put forward by a minor left-wing party. One research participant noted that suggestions put forward by certain minority groups will have little chance of receiving backing from majority groups: "In Peru we are very sensitive. … Everything left wing is too convoluted, very difficult. The mere fact that something is presented by this congress person and that parliamentary group makes it more difficult to achieve consensus with the other majority groups" (Interview 5). This idea that the proposal was "too convoluted" – or rather that the majority parties used their difficulty in understanding it as a reason to edit the bill – was echoed by one of the proponents of the proposal, belonging to the minority left party:

> The fujimorist group in the commission and in the plenary session of the congress – where it held majority – devoted itself to retire all references to loss and damage, as they would not understand the link between risks and climate change … The Ministry for Environment itself step[ped] aside after a political decision of the minister [elected by the PPK] who wanted a "light bill." (Interview 12)

Another interviewee backed this reading, noting how MINAM was "obviously" trying to keep as much as possible from the text proposed by the executive (Interview 6). On a similar note, another representative from the minority left party highlighted how references to climate justice disappeared, being perceived as "very political" by most of congress – as dominated by the fujimorist party: "The climate justice issue scared them, and the [idea of] '*buen vivir*' [good living, wellbeing] evoked how things are in Bolivia. Hence, everything they could take out … I mean, they took many things out of it" (Interview 7). The reference to Bolivia is made to emphasize the alternative framework for dealing with social and environmental issues that is promoted in the country, rejecting the neoliberal logic of extractivism, valuing the participation to community life, and stressing the importance of living in harmony with nature (Cappelli et al. 2022).

Finally, some interviewees identified the lack of uptake of the loss and damage issue among civil society organizations as one of the key reasons it did not make it into the final text. A government representative noted that more engagement from civil society could have made a difference (Interview 4). Stakeholders from local NGOs acknowledged their lack of engagement with the concept and the process (Interviews 6, 9). Yet one of them stressed that these "flags of struggle … cannot be raised every day, but rather take years to be built" and pointed to the example of the years-long work they have been doing on the issue of energy transition (Interview 9).

At the same time, the work undertaken by some international NGOs on loss and damage does not seem to have considerably raised the profile of the issue at the national level. An example is the "Huaraz case," brought in 2016 by the Peruvian farmer Saúl Luciano Lliuya, together with the NGO Germanwatch, against the German energy company RWE over its contributions to climate change impacts in the Andes region of Huaraz (Frank et al. 2019). Huaraz is home to Lake Palcacocha in Cordillera Blanca and to 120,000 people. Glacier retreat is leading to significant risk of GLOFs, placing the lives and livelihoods of the local population at threat. As the owner of a small farm in Huaraz, Lliuya, with the support of Germanwatch, decided to sue RWE for its historical contribution to GHG emissions and thus to increased flood risk in the Huaraz area. Despite RWE having no operations in Peru, Germanwatch's lawyers resorted to a German civil code action used to make negligent neighbors responsible for reparations (Frank et al. 2019). RWE was asked to reimburse 0.47 percent of the total costs for enhancing safety measures to help avoid the outburst of the glacial lake – the same percentage as RWE's estimated contribution to global industrial GHG. These numbers are symbolic, but establishing attribution would represent an unprecedented victory (Huggel et al. 2020). On November 30, 2017, the appeal court recognized the complaint as well-pled and admissible. At the time of writing, the case is still pending resolution.

The Huaraz case has received a great deal of media attention, particularly in the Global North, with outlets from *The New York Times* magazine (Jarvis

2019) to France 24 (2022) covering the developments of the legal claim. Despite this international profile, most people we interviewed felt that the case did not have much relevance in Peru (Interviews 2, 4, 6, 7, 8, 9). As one participant put it: "The level of recognition of the importance of the case has been modest in Peru. Probably, it has not been well understood, the importance of this case. You will see probably a couple of news from *la Republica*; that was the only newspaper that covered that case" (Interview 9). Another interviewee (Interview 6), commenting on how academia has little engaged with the case, observed that other cases, "like the Colombia climate litigation case or the Astrato river protection case," are discussed more often.

8.6 IDEAS

The idea of identity plays a key role in explaining the lack of engagement with loss and damage at the national level. Research participants identified – without prompting – two important facets of Peru's identity that come into play: (a) the country's status as a middle-income country and (b) its development and economic model.

Several interviewees referred to loss and damage as something that is not consistent with Peru being a middle-income country (Interviews 1, 2, 4, 5). In the words of a high-level negotiator: "Tell me if I am wrong, I haven't heard any time that loss and damage is a priority for a country like Peru, that it is a middle-income country. I am not sure if loss and damage is a priority for Chile or for Colombia, I've never heard that it is a priority" (Interview 2). The "middle-income country" argument plays out in different ways. First, referring to the international dimension, it relates to the way national actors frame loss and damage as "money for the poor" (Interview 1) and thus something concerning SIDS and LDCs. Emblematically, one interviewee noted, "As a middle-income country, we did not want to take the resources that were meant for poorer countries" (Interview 4). In a similar vein, it was highlighted that Peru's economic status does not imply a need for international cooperation but rather for technical support and assistance (Interview 5). Another argument put forward related to compensation and the idea that a middle-income status means that the state may need to find resources to compensate its own population if they are affected by climate change impacts (Interview 1). The interviewee went on noting that "the risk is too high for countries to blindly incorporate the term [compensation] without safeguards on what can be done against us as nations and what cannot" (Interview 1).

Second, Peru's development and economic models were brought up by some interviewees as a key factor limiting the discussion and as a barrier to the uptake of bold climate-related policies, including those dealing with loss and damage. The country's extractivist economic model was highlighted as a particularly relevant constraint. Reflecting on the issue of energy transition, one research participant noted that achieving it "is not possible because you are going against development and development in Peru is driven by extractive

activities … which is where Peru gets its main revenues" (Interview 5). The strong reliance on mining as a source of income is also used to explain the relative power across ministries, with the MEF being the strongest, followed by the Ministry of Energy and Mining (Interviews 5, 9). Given this power structure, the climate change law is not simply deprioritized but seen as an active threat to the country's economy. One interviewee observed that any calls for climate change policy are seen as "anti-development" and against national interests:

> [Those insisting for] a change in the economic model, again, they are left wing, they are revolutionaries, they are against the system, anti-development, and we must carry on with our current economic model. This is how they have polarized, so to speak, these messages, these languages and somehow they do not let us open again [the discussion] and identify the priorities and urgencies. So, that's why I say that this context helps to understand that what was achieved with the Framework Law on Climate Change was really an important advance, but of course, we are still missing something. (Interview 5)

Finally, an interviewee critically reflected on Peru's economic model by defining it as "deeply neoliberal" and affirming that the importance of each public sector depends on how much it can yield in terms of private investments or foreign investments in the Peruvian state. They said, "The Ministry of Environment does not escape this logic and the discussions of environmental public policy do not either" (Interview 9).

8.7 CONCLUSION

This chapter has explored the reasons behind Peru's limited engagement with loss and damage – both at the national and at the international level – despite its self-identified high vulnerability to climate change impacts. From a theoretical point of view, this case challenges the "ecofunctionalist hypothesis" (Edwards & Roberts 2015), which posits that concerns among political leaders and citizens around climate change impacts can lead them to take action, especially within international climate talks. The Peruvian case shows that while this is true to some extent there are also other factors at play.

Table 8.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. This chapter shows that Peru's policy landscape is characterized by a growing prioritization of adaptation, suggesting that the country is moving beyond the traditional focus on mitigation. Despite attempts to include a provision for a loss and damage fund in the proposal for the 2018 LMCC, any measures explicitly addressing loss and damage are absent from Peru's national climate policies. We have identified several political factors that explain this exclusion: the rejection of ideas that are regarded as "leftist"; the lack of support by civil society organizations on the issue; and a strong interest from the executive branch in promoting its own legislative proposal. From an institutional perspective, the relatively "weaker" position of MINAM compared to the MEF,

TABLE 8.1 *Summary of Peru*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Glacial retreat • Biodiversity loss • Temperature increase • Sea-level rise and coastal erosion • More intense rainfall patterns, floods, and landslides • Droughts • Desertification	• Climate Change Framework Law (2018): the law does not include loss and damage but featured prominently in one of the legislative proposals and was also mentioned in the two *predictamenes* produced by CPAAA) • ENCC • NDC (2020) • NAP (2021): the document shows emerging recognition of the link between international processes and national policymaking on loss and damage • Disaster risk management system	• UNFCCC through AILAC	• Growing prioritization of adaptation (moving beyond the traditional mitigation focus) • The exclusion of any reference to loss and damage within the Climate Change Framework Law provides insights about the way national actors (do not) engage with the issue • When framed through the issue of compensation policymakers were somewhat wary of loss and damage in terms of what it would require the state to provide at the national level • Power differences between ministries: relative power of the Ministry of Economy and Finance compared to the Ministry of the Environment, where the former – together with the Ministry of Energy and Mining – is labelled as a "Super ministry" while the latter is identified as a "third-order ministry" "despite the enormous goodwill" of its officials • Politics matter: loss and damage has been opposed because its inclusion in the climate change law was proposed by a left-wing party • High-level cases like *Saul Lliuya* v. *RWE* have limited relevance within Peru	• Identity matters: loss and damage is perceived as inconsistent with Peru's status as an upper middle-income country • Peru's extractivist development and economic model is perceived as limiting discussion and uptake of bold climate-related policies, including those dealing with loss and damage • Lack of support for loss and damage from civil society organizations • The case of Peru highlights that concerns about climate change impacts will not necessarily translate into the adoption of the full spectrum of actions required to address them

which is traditionally concerned with any additional budget expenditure, also creates a broader context of constraints within which climate policy is formulated.

In addition to these political factors, we found that Peru's perceived identity as a middle-income country plays the most important role in explaining the lack of engagement with loss and damage. In the UNFCCC context, Peru frames loss and damage as "money for the poor" and stresses how its economic status does not imply a need for international cooperation but rather for technical support. Furthermore, when framed through the issue of compensation, policymakers were wary of loss and damage in terms of what it would require the state to provide. In particular, they were concerned about the additional burden it could imply for the national budget.

The Peruvian case study highlights that concerns about climate change impacts will not necessarily translate into the adoption of the full spectrum of actions required to address them. Even the most severe consequences of climate change that the country is already experiencing, including melting glaciers, loss of biodiversity, and more intense and/or frequent weather extremes, are still framed as being firmly situated within the adaptation domain. The chapter shows the key role of ideational and political conditions in shaping the way limits to adaptation, and resulting losses and damages, are and will be addressed at the national level.

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9

(Non)Governance Evolving

COP25 and Chile's Growing Engagement with Loss and Damage

Monserrat Madariaga Gómez de Cuenca

9.1 INTRODUCTION

Despite its high vulnerability to the impacts of climate change, Chile does not have any specific or explicit policy measures in place to target climate change loss and damage. Historically, the Chilean government has been relatively distant from discussions happening at the international level. Before the twenty-fifth Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in 2019, when Chile took on the role of COP presidency, the country had not directly participated in loss and damage negotiations. Instead, it had been represented by or coordinated with the Independent Association of Latin America and the Caribbean (Asociación Independiente de Latinoamérica y el Caribe, known as AILAC), which brings together many of the Latin American free market economy countries in one negotiating group.

The Chilean COP25 presidency, as well as the growing importance of loss and damage in the UNFCCC negotiations since then, has resulted in Chile becoming much more invested in the issue of loss and damage. In the last few years, Chile has been one of the main promotors of the Santiago Network on Loss and Damage (SNLD), set up to catalyze technical assistance for the implementation of relevant approaches for adverting, minimizing, and addressing loss and damage at the local, national, and regional levels (UNFCCC 2019). This catalyzing engagement with loss and damage was influential in the appointment of Chilean Minister of the Environment Maisa Rojas as the co-chair for the loss and damage negotiations at COP27 in Sharm El Sheikh in 2022. Yet despite this active international engagement, loss and damage policymaking at the national level remains limited.

By reviewing the domestic policy landscape and institutional responses to loss and damage, together with fourteen interviews with key government,

non-governmental organization (NGO) and private sector personnel, this chapter seeks to explain why Chile's new emphasis on loss and damage on the international stage has not yet fully infused national governance, identifying main barriers to prioritizing loss and damage at the national level. Although limited, there is some emerging recognition of and engagement with the issue at the national level: For example, there are three commitments related to "losses and damages" within the adaptation pillar of Chile's Nationally Determined Contribution (NDC), as well as a growing awareness of the country's vulnerabilities and the need to address loss and damage across different sectors of society. Furthermore, this chapter shows that while international negotiations act as a driver for domestic climate governance in some cases, Chile's centralism, lack of ministerial coordination, and the relatively institutionally weak position of the Ministry of the Environment (Ministerio del Medio Ambiente, MMA) all operate as barriers to the development of more effective governance responses to loss and damage. Another key reason behind Chile's limited engagement with loss and damage is its economy: the country's status as a high-income emerging economy and its prioritization of mining, agriculture, and industry over the environment – as is often the case with extractive economies. Finally, using the example of Chile's privatization of its scarce water resources, this chapter suggests that a neoliberal regime can act as a significant obstacle to addressing climate-related loss and damage.

9.2 NATIONAL CIRCUMSTANCES

Chile is formed of continental land and insular territories (islands and archipelagos). Its continental land occupies a long and narrow strip in South America, bounded by the Andes and Argentina to the east and more than 6,000 kilometers of coast on the Pacific Ocean to the west. Chile also has jurisdiction over Easter Island, located in Oceania. This diverse geography results in varied climatic zones across the country: from the Atacama Desert in the north of Chile – the driest in the world – to Patagonia in the south, where the ice fields concentrate the largest glacierized area in South America (Pellicciotti et al. 2014, p. 1199).

Given its varied geography, Chile is already experiencing wide-ranging climate impacts, particularly increases in temperatures and nationwide heatwaves (Jarpa Solar 2020). This will be felt with greater intensity in the northern area (1.5 to 2 degrees Celsius above the historical average) and in the mountainous region of the Andes due to rainfall reduction and drought (Jarpa Solar 2020). Chile has been experiencing a ten-year megadrought, which has contributed to its problem with water scarcity (see Section 9.6), and rainfall is expected to decrease by up to 30 percent in the future (Bustos et al. 2015). These changes also pose threats to some of the main economic activities of the country – agriculture and forestry – as well as to people's lives and livelihoods. Newspaper headlines have identified climate change-related migration associated with

water scarcity in various parts of Chile (Benfeld 2022; Montes 2021). The mining sector has begun to resort to desalinization processes to meet water needs (Interview 14). Other climate-related challenges include rising tides in coastal areas; extreme climate events in different parts of the country, such as floods, landslides, and the intensification of forest fires; sea swells; reduction of glaciers; ocean acidification; and damage to infrastructure (Government of Chile 2020a).

The Chilean government recognizes these vulnerabilities in its national communications to the UNFCCC and most national climate policy instruments. They outline how Chile meets seven out of the nine criteria for climate vulnerability under the UNFCCC regime: low coastal areas; arid and semi-arid regions; forested regions; land susceptible to natural disasters; drought and desertification; urban areas with atmospheric contamination; and mountain ecosystems (Government of Chile 2020a, p. 10). The same communications and scientific documents point to structural inequalities, institutional weaknesses, and the extractivist-focused development model as stressors of these circumstances.

9.3 POLICY LANDSCAPE

Chile's presidency of COP25 in 2019 was seen as a pivotal moment to strengthen the country's national climate policy framework. Since then, several new climate policy instruments have been developed. First, the Framework Law on Climate Change (Ley Marco de Cambio Climático, referred to here as LMCC), adopted in June 2022, sets out new policy instruments, including the 2050 long-term climate strategy (*Estrategia climática de largo plazo*) (Government of Chile 2022a). The strategy lays out a road map for mitigation and adaptation, establishing 2050 as a deadline for carbon neutrality and setting out adaptation guidelines and thresholds. The LMCC establishes other policy instruments, namely, sectoral mitigation and adaptation plans. The Chilean NDC complements these documents and is unusual among Latin American and developing countries' NDCs in that it explicitly aims for carbon neutrality by 2050. This emphasis on mitigation was criticized by some actors who believe the government, given the country's already relatively low greenhouse gas emissions, should focus efforts on adaptation to attend to the country's most urgent needs and think through potential future climate scenarios (Interviews 2, 9). For other actors, the 2050 mitigation goal, as a result of matching the international framing, is not ambitious enough as it does not consider the urgent need to decarbonize some specific areas, particularly the "sacrifice zones" (Interview 2). The idea of sacrifice zones first emerged from affected communities and the NGO sector but was then crystallized through case law in Chile. It concerns those territories that endure irreversible and severe environmental damage due to the economic activities being performed there. A paradigmatic example is the Quintero and Puchuncaví region, also

referred to as "the Chilean Chernobyl" in international media, that has been affected for decades by recurrent oil spills in the sea, toxic gas emissions from the local thermoelectric plant, and other air, water, and land pollution from mining and other industrial activities (Dannemann 2022; Leija 2022). A 2019 Supreme Court ruling grants protection to the population and determines state responsibility:

> The several failures to act committed by the bodies of the Executive Branch, these are the Ministry of the Environment and the Ministry of Health, constitute serious illegal omissions that, at the same time, have violated the rights invoked by the plaintiffs and which are guaranteed by the Constitution. (Labbé Céspedes & Palma Calorio 2019)

Pressure to act and the election of a more progressive and "green" government in 2021 prompted the board of one of the companies operating in the area – a state-owned smelting factory, Codelco Ventanas – to announce the closure of its operation (Deutsche Welle 2022).

The adaptation section of the 2020 NDC includes a specific loss and damage-related commitment: "by 2021, an estimation of the costs of inaction on climate change, and by 2025 following the same line, an estimation of costs associated with historic losses and damages."[1] According to stakeholders, especially within government, this instrument is considered a key priority as these costing estimations are required to justify public spending on loss and damage-related measures (Interviews 1, 13) to move forward loss and damage policy. The study "Costs of Inaction on Climate Change" (Costos asociados a la inacción frente al cambio climático; CEPAL 2022) was presented in the adaptation communication submitted by Chile to the UNFCCC on December 14, 2022 (Government of Chile 2022c). It quantified the costs of inaction toward the middle to end of the century, against the worst-case climate change scenario (i.e., the Representative Concentration Pathways 8.5), in eight key economic sectors: agriculture, drinking water, biodiversity, energy, mining, fishing and aquiculture, harbors and beaches, and health (Government of Chile 2022c, p. 13). For example, the agricultural sector would face an income reduction of 25–28 percent by 2050 (Government of Chile 2022c, p. 13). The adaptation communication warns that the study is not exhaustive, as it does not consider all sectors or sub-sectors susceptible to climate change as well as other impacts where research is not available for the country. Hence, the results "should not be taken as a prediction of future conditions per each sector, but as an exercise to identify some of the potential impacts of climate change" (Government of Chile 2022c, p. 17).

[1] Author's translation of the NDC (p. 10), commitment A2. An official English translation is available, but it does not exactly capture the meaning of the commitment: "By 2021, an estimation of the costs of inaction on climate change, and by 2025 an estimation of costs associated with historic by losses and damage as part of this."

The same section contemplates a commitment on climate change-related migration framed as "responses to climate risks and socio-natural disasters" (Government of Chile 2020a Commitment A2 [a] and [c]). The proposed action comprises the development of guidelines on the effect of climate change on human mobility in Chile. The text links it to international commitments, and interviewees identified the guidelines as a response to the topics grouped together under the Warsaw International Mechanism for Loss and Damage (WIM) (Interviews 1, 8). The National Emergency Bureau in the Ministry of the Interior and Public Security (Oficina Nacional de Emergencias del Ministerio del Interior, known as ONEMI) is the institution designated with guideline development, and it has established a multi-sector and multi-actor roundtable to work on policy development related to climate change migration (Government of Chile 2015). Commenting on this specific roundtable, one interviewee noted that there is a preference for focusing on the humanitarian side of loss and damage because other problems – such as agricultural loss and damage – are outside ONEMI's remit (Interview 8).

In contrast to the NDC, which explicitly refers to "climate change loss and damage," many potentially relevant national policies do not use this terminology. However, when asked about "loss and damage," some interviewees referenced contiguous policy domains, including disaster risk management and adaptation. For example, interviewees saw the National Disaster Risk Reduction Policy 2020–2030 (Politica nacional para la reducción del riesgo de desastres) as relevant for loss and damage (Interviews 1, 8). This policy reiterates issues of climate change vulnerability, referencing the National Adaptation Plan (NAP) and the nine vulnerability criteria established by the UNFCCC (Government of Chile 2020c). Its strategic objectives include strengthening disaster risk management governance and developing an integrated system to monitor "damages, losses and needs." Similarly, interviewees identified loss and damage concerns as relevant and related to instruments on climate change adaptation. They mentioned, in particular, the 2022 Climate Change Adaptation Plan, which replaced the 2014 NAP (Interviews 7, 10). Finally, they pointed to sectoral adaptation plans which have been mandated by the LMCC (Interviews 3, 7; see also Madariaga Gómez de Cuenca 2021).

A notable development in Chile's loss and damage policymaking is a direct mention of the issue in the 2022 LMCC. The original draft, introduced by the government for parliamentary discussion in January 2020, did not include any reference to loss and damage (Government of Chile 2020d). Those involved with drafting the bill suggest that Chile's lack of international engagement with the topic accounted for its omission in the first draft (Interviews 1, 7). During parliamentary discussions, references to loss and damage were included in the glossary section, eventually making it into the final text. Article 3 defines losses and damages as the economic, social, and environmental "impacts caused by climate change to which a territory and its population are exposed" (Government of

Chile 2022a).[2] The definition makes a distinction between irreversible impacts, calling them "losses," and reversible ones, "damages." It also identifies three types of loss and damage: avoidable, non-avoided, and unavoidable (Government of Chile 2022a). At COP27 in 2022, following on from the Glasgow Pact, Chile presented an updated annex to the 2020 NDC with stronger mitigation commitments, a new institution to address "just transition," and a presentation of the LMCC and the long-term strategy, but no amendments were made to adaptation or loss and damage pillars (Government of Chile 2022b).

Finally, environmental advocates sought to impose a duty on the state to adopt actions to "prevent, adapt and mitigate risks, vulnerabilities and effects provoked by the climate crisis" as part of the discussions during the Constitutional Convention over the course of 2021 and 2022. This language was included as Article 129 in the draft version that emerged from the Constitutional Convention in July 2022. However, the full draft of the convention was rejected in the Constitutional Referendum on September 4, 2022, pointing to some deep-seated divisions in the broader political landscape around constitutional reform in Chile.

9.4 INTERNATIONAL ENGAGEMENT

This section explores three main themes. First, it looks at the role of the Chilean delegation in the UNFCCC negotiations on loss and damage, specifically around the time of COP25. Second, it considers the much lower levels of engagement of nongovernmental Chilean actors with the loss and damage negotiations. Governmental actors, and particularly those working directly in the negotiations or in adaptation and disaster risk management, were found to be much more familiar with international developments on loss and damage than civil society or academia. Third, the section analyses how the international negotiations and its outcomes shape domestic policies.

9.4.1 Presiding COP25

In 2019–2020, Chile held the presidency of COP25 for a two-year period – an unusual arrangement – because of the postponement of COP26 due to the Covid-19 pandemic. The Chilean presidency had implications for domestic climate change actors: It enhanced the relative strength of the negotiation delegation; broadened the range of negotiating topics the delegation was involved with (including loss and damage); and increased the capacity for domestic climate policies teams (Interview 7). Interviews show that prior to COP25 there was no

[2] Instead of using a literal translation of "loss and damages," which would be *pérdida* (singular) *y daños* (plural), the Spanish translation of the Paris Agreement uses *pérdidas y daños* (both plural); hence, many national instruments, such as the NDC or the LMCC, speak of *pérdidas y daños*.

specific negotiator on loss and damage and that Chile "would rely on AILAC to conduct these negotiations" (Interview 7). AILAC is recognized as a negotiation group within the UNFCCC and is part of the broader G77 plus China bloc of developing countries. It includes Chile, Colombia, Costa Rica, Guatemala, Honduras, Panama, Paraguay, and Peru, with the aim "to generate coordinated, ambitious positions and contribute to the balance in the multilateral negotiations on climate change with a coherent vision for sustainable development that is responsible to the environment and future generations" (AILAC n.d.). Informal conversations with AILAC negotiators suggest that the group emerged on the initiative of the negotiators themselves, who had found themselves unable to cope with the many negotiating streams and were keen to coordinate positions to enhance an otherwise limited impact in the negotiations as individual countries.

Before COP25, the participation of the MMA in adaptation negotiations (which include the loss and damage negotiating stream) was nonexistent. Instead, these were covered by a negotiator from the Ministry of Foreign Affairs who would then report on international developments for consideration in national policy development and implementation processes (Interviews 7, 10). As one interviewee from the MMA noted, their initial lack of involvement was due to budgetary constraints:

> No, there was no money to go to COPs. Someone from the mitigation team would attend, which was the main negotiation topic, and perhaps the office chief if resources became available. Little by little, in recent years the minister [of the environment] joined the delegations and ever since, the topic has become more relevant .... Of course, the political relevance is increasing incrementally. Before, no; not even a chance. I asked many times and fought for it but there was no money. (Interview 10)

Despite the small size of the delegation, Chilean negotiators were quite active within the Adaptation Committee. According to our interviews, this is attributable to the personal interest and motivation of the relevant negotiators rather than a priority of the state at the time (Interview 10).

The Chilean COP presidency marked a dramatic shift in thinking about loss and damage, as the delegation began to take an active role in leading discussions (Interviews 4, 10). During COP25, the presidency worked toward the establishment of the SNLD to address calls for greater technical assistance on loss and damage (Interviews 7, 10).[3] In the year after COP25, the Chilean presidency again focused on the SNLD, which needed to be operationalized and was a priority for the Chilean delegation (Interviews 4, 10). As part of these efforts, in December 2020, a climate dialogue was hosted by Chile and the incoming UK presidency to develop an agreement on the functions of the SNLD.[4] Different Chilean actors interviewed for this research as well as other countries' delegates

[3] But see also UNFCCC (2019).

[4] Description and video recording of the event available at: https://unfccc.int/event/developing-the-santiago-network-for-loss-and-damage.

recognized the role of Chile's negotiators in facilitating the SNLD's establishment and operationalization and some commented on how the outcome was particularly welcomed by the Small Island Developing States, one of the most active and relevant sets of actors on loss and damage (Interview 7).[5]

9.4.2 Civil Society Actors

The participation of Chilean civil society at COPs or as part of the broader international discussion on loss and damage is very limited: Only three Chilean NGOs had observer status at the time of this research (UNFCCC n.d.). Interviews suggest that only a few actors in this sector are familiar with the concept of loss and damage or engage with it in their NGO activities (Interviews 3, 12). One exception was a young activist who learned about loss and damage while spending some time with YOUNGO, the youth and children constituency of the UNFCCC, when he was studying overseas. The stakeholder suggested that this opportunity to attend the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM ExCom) meetings and report to YOUNGO only happened when he was situated within a Global North institution. Since his return to Chile, he noted that "this is not a concept I've worked on so much directly … In Chile we did not do anything because it's not a conversation we have had yet. Coming from the WIM ExCom to report to a group of young people, they would not understand anything. We are only now starting to pick up on loss and damage at our local COY [Conference of Youth]" (Interview 12). The stakeholder also suggested that it was difficult to translate the ExCom's work into the national context:

> ExCom was quite disorganized, problematic. I, to be honest, feel – and this is something that happens to me in general with the UNFCCC, and maybe it is due to the privilege that is required to come into the space of the Convention – but I feel there is too much of a disconnect with the territorial realities. That it is very difficult to bring those realities to the conversation and for those realities to be ultimately reflected in how these international policies are being drafted and developing. (Interview 12)

Other NGOs and civil society actors we engaged with were either unfamiliar with the topic or were upfront about not being interested in the international negotiations (Interviews 2, 3, 9). One of them described her lack of engagement and interest in the international dimension of climate change as a consequence of the historic failures of the process and particularly the legacy of the failure at COP15 to reach a binding international agreement (Interview 2).

9.4.3 International Instruments and National Policies

Domestic climate law and policy are influenced by international discussions, instruments, and their framing. This sometimes acts as a driver, promoting

[5] This also became clear through author's participant observation at COP26.

new developments in policy, while in other cases it is perceived more as a barrier to engaging with the types of climate challenges faced at the national level. This explains, for example, the framing of loss and damage as disaster risk management (DRM) within domestic policies and their alignment with international law instruments.

Interviews conducted at ONEMI (Interviews 7, 8, 10), as well as a document review of the national policies (Government of Chile 2020a, 2020c), show a link between the Paris Agreement and the Sendai Framework on Disaster Risk Reduction, on the one hand, and the domestic policies, on the other. In general, interviewees suggested that "the Sendai Framework and the Paris Agreement shape the platform for risk reduction and prevention" (Interview 8) and "the Paris Agreement and the negotiations set the topics to be addressed" (Interview 10). Indeed, the Sendai Framework has been seen to contribute significantly to shaping DRM policies, including those related to climate change risks (Interview 8). One of the interviewees exemplified this when referring to DRM policies and using the same timelines as the international instrument: "It is important and it is a commitment according to Sendai, we should show some progress for 2030" (Interview 8).

On adaptation, however, the slow progress at the international level is seen, in some contexts, as an obstacle to developing domestic adaptation policies. Likewise, the international preference for mitigation funding is also regarded as a barrier to seeking international support for adaptation-related initiatives. One interviewee noted that resource allocation plays a significant role in focusing policy in certain directions:

> I see this as very related to resources, and developed countries, for a long time, have emphasized mitigation, which was the most relevant topic for them. Including [adaptation] entailed starting a conversation about finance with developing countries and more vulnerable countries. I think [adaptation was avoided] because of these two circumstances: mitigation and not getting into problems and disbursing money. (Interview 10)

Lack of guidelines and direction from the international level was another factor interviewees pointed to in explaining the more embryonic development of adaptation policies compared to mitigation policies at the national level:

> It is as if the general outcome was "countries have the freedom to adapt as they wish. What is important is that adaptation is met." There was not much input coming, nor much input we could deliver. I know some progress has been made but there is still no agreement on what will be in the adaptation communication, which indicators should be used, what agreements will be reached on the global stocktake for adaptation. I believe adaptation as a topic is very weak at the international level. (Interview 10)

This idea that the international sphere focuses excessively on mitigation to the detriment of other facets of climate policy was shared more widely (Interviews 2, 4, 9, 10).

Research participants noted that this international influence can also sometimes act against a more ambitious national climate policy. As noted in Section

9.3, criticism arises particularly around the 2050 decarbonization target, prompted by the Paris Agreement. One interview noted that international mitigation targets might have created the conditions for a less ambitious national decarbonization plan:

> There was a possibility to move decarbonization ahead to 2040 during the parliamentary discussion of the climate change framework law bill, which is relevant for the local reality of sacrifice areas, but the argument of the international community setting the 2050 goal permeated the decision to leave it as such. (Interview 2)

The 2040 goal was deemed important at the national level as a way to bring forward the end of coal-generated energy and other activities conducted in the "sacrifice areas" (see Section 9.3).

9.5 INSTITUTIONS

Throughout our interviews, institutional dynamics were consistently identified as major obstacles to dealing with climate change in general and grappling with loss and damage more specifically. There is a perceived weakness of the MMA compared to ministries related to productive sectors, such as agriculture, mining, fisheries, economy, development, and tourism. This weakened position is institutionally represented by the role of the Council of Ministers for Sustainability (CMS), which was seen to impede further development of national environmental policies. Actors also perceived a need for better institutional coordination on how to respond to the complexity and transversality of climate change impacts. Centralism, on the other hand, is portrayed as a barrier to the development of regional and local climate impact policies.

9.5.1 MMA

Challenges that were identified by interviewees in developing effective responses to loss and damage arising from climate change concerned the perceived weakness of the MMA. This was linked to resource limitations, domination by other larger ministries, and/or features of its institutional design. For example, one interviewee, when commenting on the urgent need to articulate a multi-level governance framework to address climate change, highlighted the relatively low resources of the MMA as one of the main barriers to better governance of loss and damage. The stakeholder asked:

> Who should do this coordination? The Ministry of the Environment. And they do it, but not up to the standard needed to deal with the complexity of the challenge. There are several reasons for that, not as much willingness …; the resources of the Ministry of the Environment are so scarce, specially compared to the ones of, for example, the Ministry of Energy. The Ministry of Energy can conduct a consultation process where this single process cost is equivalent to the yearly budget of the whole Ministry of the Environment. (Interview 4)

Established in 2010, the MMA was granted limited influence over environmental policy; all relevant activities producing environmental impact are under the jurisdiction of other ministries, for example, agriculture, energy, forestry, and fishing. The MMA has little to no influence over the development model or development planning. It deals primarily with negative externalities of productive activities, for example, waste regulation or decontamination plans. Its influence in these areas might grow as a result of the recently created National Service for Protected Areas (Servicio Nacional de Áreas Protegidas, SBAP), which places biodiversity management under the authority of the MMA. However, the ministry is still not involved in water management or the allocation of water rights, which, as will be discussed in Section 9.6, is a main ecological concern for the country (Government of Chile 1981). Even the environmental impact assessment process is managed by an independent body established outside of the realm of the MMA (Government of Chile 1994 Article 8).

The 2022 LMCC goes a step forward in granting more climate policy responsibility to the MMA. Indeed, the ministry is responsible for the drafting of the main instrument of the law, namely, the "long term strategy," which outlines mitigation, adaptation, and loss and damage policies (Government of Chile 2022a Article 5). However, the law maintains a sectoral approach to adaptation and mitigation plans, where the concrete steps to achieve goals and commitments are made. As this approach and these plans existed prior to the LMCC, these remain in the realm of the respective ministries, giving the MMA a coordination role (Government of Chile 2022a). One interviewee related her experience coordinating climate change adaptation plans:

> Obviously, it [the MMA] has no weight. Actually, when I worked there I realized how frustrating it is, because you have to go and ask other ministries for favors. "Please, would you be so kind to please make an adaptation plan for your sector?" What? The Ministry of the Environment should be demanding productive ministries to deliver on minimum requirements for their processes. (Interview 9)

This weakened position of the MMA does not only emerge from the (lack of) allocated functions and competences and a scarce budget but also from its institutional design. Indeed, regulation, policy, and activities produced and delivered by the ministry must be agreed to by ministers from all productive sectors through the CMS (Government of Chile 1994 Article 71). Chaired by the MMA and composed of ministers across multiple sectors including agriculture, finance, health, housing transport, and mining, the CMS's aim is to provide a more transversal approach to environmental protection. However, some interviewees, including those in academia, suggested that it instead operates as a filter to block progressive environmental policymaking and to undermine the decision-making power of the MMA (Interviews 2, 3).

The LMCC dictates that all instruments – including those of relevance for climate change loss and damage, like the aforementioned "long term

strategy," will be subject to approval by the CMS, solidifying its position as a key gatekeeper to climate action (Madariaga Gómez de Cuenca 2021). If the CMS maintains its current performance trend, this might operate against climate ambition, instead of promoting it. Indeed, a study examining the agreements of the CMS since its creation in 2010 shows that "it has not contributed significantly to promoting the environmental component in public policy" (Richter 2021). During the discussion of the law, members of parliament and other actors expressed concerns about the mediating role of the CMS over climate policies and instruments set out in the law.[6] This led to introducing transparency requirements to the CMS in order to enhance accountability (Interview 13).

9.5.2 Lack of Coordination

The multidimensional and interdisciplinary nature of grappling with climate change impacts demands coordination among different actors and institutions. This was highlighted as a key institutional constraint to addressing loss and damage and adaptation. The country takes a sectoral approach to many of these issues, for example, the drafting of mitigation and adaptation plans, as mentioned in Section 9.5.1. These are called "sectoral mitigation plans" or "sectoral adaptation plans" (Government of Chile 2022a Articles 8, 9). While the first apply to ministries with an obligation to reduce emissions, the second relate to thematic areas where adaptation is required but that are allocated to the ministry perceived as most relevant to that topic. For example, the Transport Mitigation Plan is to be drafted by the Ministry of Transport to comply with their allocated emission budget, and the Coastal Adaptation Plan is to be drafted by the Ministry of National Defense (Government of Chile 2022a). One actor noted: "Chile is one of the few countries with a very strong sectoral approach of their plans, which, on the one hand, works against unity, because of fragmentation, but on the other hand, it offers a good level of detail. In other places, there are large national plans, with the same breath as one of the sectoral plans in Chile" (Interview 4). This lack of institutional coordination is perceived as a problem for authorities dealing directly with loss and damage as well. ONEMI, Chile's DRM public authority, effectively participates in the formulation of NDCs and adaptation plans as well as their sectoral plans, but in interviews the members highlighted a lack of coordination across bodies and multilevel institutions as an obstacle for their engagement with the loss and damage agenda (Interviews 1, 8). When asked if loss and damage was relevant for the country, an actor suggested:

[6] Including the author, see presentation at the Senate Environment Commission on January 27, 2020. Recording available at: https://tv.senado.cl/tvsenado/comisiones/permanentes/medio-ambiente/comision-de-medio-ambiente-y-bienes-nacionales/2020-01-27/112257.html

I am saying yes because there is a larger awareness of the need and relevance of generating responses [to climate impacts], but it is not part of our day-to-day … to even know if we are investing enough in DRM because we don´t know how much we are really investing. Ministries are not aware of this; hence, they do not consider it in their budgets. (Interview 1)

It is worth noting that government actors we interviewed and documents we analyzed pointed to a number of recent efforts to strengthen cross-sectoral coherence and integration. First, the Interministerial Technical Team for Climate Change (Equipo Técnico Interministerial para el Cambio Climàtico, ETTIC) was established in 2019 under the umbrella of the NAP. The body assists the MMA in preparing, implementing, and monitoring climate change-related instruments and is composed of representatives drawn from climate change-related institutions. Second, the Gender and Climate Change Interinstitutional Working Group was also formed in 2019 as part of the COP presidency activities and integrated the Gender Negotiating Cluster of the Ministry of Foreign Affairs; the Climate Change and International Affairs Offices of the MMA; and the Ministry of Women and Gender Equality. However, most actors we spoke to did not mention these bodies, potentially because of their relatively recent establishment. Third, the Roundtable on Human Mobility, Climate Change and Disasters was established, composed of representatives of the public sector, academia, and civil society. It is working to expand knowledge on the phenomenon of human mobility in the context of climate change and develop guidelines for public policy, at the national and sub-national levels (Interview 8).

9.5.3 Centralism

Government, academic, and NGO interviewees all pointed to the high degree of centralization in Chile's political governance as a challenge when adapting to climate change. The perception is that a more locally focused model is needed because "the diversity of the territory requires this approach" (Interview 3). Actors working with local governments identified several barriers to their involvement with policymaking that are relevant for adaptation and addressing loss and damage. First, interviewees pointed to existing regulation and the limitations of the competencies that have been granted to local governments. One interviewee noted that the Municipalities Act gives local governments DRM-related functions, without fleshing out specific ways that would allow them to develop proactive programs, observing that "they get used to generating good reactive instruments, because they cannot be preventive" (Interview 3). A lack of jurisdiction in relation to land use is another legal barrier suggested by the same interviewee: "Further flexibility in municipal programs is required for, for example, [preventing and managing] fires. Despite the fact that local governments understand which adaptation processes would be more effective, they are constrained by large legal obstacles, like private property regulation"

(Interview 3). Second, a lack of resources was named by most interviewees as a limitation in grappling with climate change impacts. One stakeholder noted that "municipalities have so many challenges, and climate change adaptation is one more [in addition] to many others with no extra budget" (Interview 3). Another mentioned that when attempts are made to implement DRM functions, the response of municipalities tends to be "with what money?" (Interview 6). A related barrier, as another interviewee suggested, concerns low levels of capacity: "There can be a mandate, even budget to have an instrument, a plan for example, but that does not mean that you have trained staff to design, implement or evaluate that plan …. In the municipalities, effectively there are no resources, human resources I mean, and trained personnel to address this issue from the local realities" (Interview 3). However, there is some progress toward more decentralized climate governance. Stakeholders identified areas of the LMCC that have allocated climate change-related functions to local governments, including an obligation to develop regional adaptation plans and local water management plans (Interview 3).

9.6 IDEAS

Interview data shows that national loss and damage governance is highly reliant on science and cost–benefit analysis tools. Indigeneity is very important in practice and produces valuable knowledge; however, it is not very present in national-level regulation. This section identifies ways in which identities are shaping the relevance of loss and damage. First, it contends that the (self-) perception of the country as middle income affects the role and approach of Chile in the international negotiations. Second, it argues that the extractivist model of development coupled with a dominant neoliberal ideology shapes the possibilities for action on adaptation and loss and damage.

9.6.1 Knowledge

A general finding from across interviews is that a significant number of actors rely on science and are able to prompt research needs to support the further development of loss and damage governance at the national level. Government officials and non-state actors identified hard-science research needs: meteorological studies, glacier, snow measurements, and so on. (Interview 7). They also called for economic-oriented research needs, pointing specifically to the need for cost estimations of loss and damage (Interviews 1, 4, 7, 8, 10). Indigenous knowledge and practices, however, were notably absent from our discussions.

The most commonly mentioned adaptation and loss and damage science-based instrument is the Climatic Risk Map (Atlas de Riesgo Climatico, known as ARClim), financed by the German International Cooperation Society

(GIZ) and developed in 2019–2020. ARClim is a set of maps related to climate change risks for Chile that incorporate medium-term climate projections. These maps show information on hazards, exposure, sensitivity, and risks of selected systems at the community level. The maps are displayed on an online platform which allows dynamic visualization and data downloading, with the idea that it will become a tool for public policy and adaptation (Interviews 4, 8, 10). At the time of writing, the MMA is developing adaptation indicators using the ARClim. A second main instrument flagged was the evaluation of costs of inaction, which was seen as a way of making action politically viable (Interviews 3, 7, 10, 13). This instrument is meant to quantify adaptation needs and articulate the economic cost of losses and damages arising from climate change, allowing for a financial justification for addressing loss and damage, which many actors see as a requirement for developing policy (Interviews 1, 4, 7, 8).

When discussing research needs, a significant number of interviewees spontaneously shared an unearthed criticism of the role of academia and how the types of research being undertaken are not sufficiently relevant to either policymakers or to civil society: "Papers are very pretty for academia, are very interesting, but everyone else would not read them, and if they do, they don't understand them, and if they understand them, they are not useful for their task" (Interview 4). Hence, "closing the link between academia and civil society is important" (Interview 11).

There was a notable absence when participants discussed the role of knowledge, science, research, and evidence: Most research participants did not refer to Indigenous knowledge and practices as relevant for addressing loss and damage. Only a couple of civil society actors went beyond traditional science and called for a need to integrate Indigenous knowledge (Interviews 3, 4, 5, 6). Research has found that Indigenous knowledge is of particular importance in considering approaches to adequately address climate change impacts and to incorporate other forms of knowledge and practices into national policies (Haboucha & Jofré 2021). Valuable adaptative practices are being developed and deployed by Indigenous populations as a response to climate change. For example, as one research participant noted, a form of local climate migration or temporary displacement has long been practiced by the Indigenous communities in the north of Chile:

> People have been living in the altiplano region all their life and it is not a problem. Many years ago, I visited Arica, affected by an altiplano winter crisis, and they explained, "We are used to living in various levels. When the weather is good, we go up and if it gets bad, we go to the family living one level down. If it gets worse, then we go to the next. This is not an issue for us, we live like this. For us, there is not really a risk, it is our way of living." (Interview 5)

Institutions do not recognize these grassroots Indigenous adaptation measures. An interviewee suggested: "It is difficult to understand these cosmologies and

paradigms [that are] so different. The challenge there, of course, is to validate these ways in which communities are adapting to risks" (Interview 6). Using these practices to inform policymaking can be an efficient way to grapple with loss and damage arising from climate change.

9.6.2 Identities

Two identities were suggested as crucial to two dimensions of loss and damage governance. First, the perception of the country as a high-/middle-income or emerging economy affects the level of engagement of the country with the international dimension of loss and damage. Second, the dominance of the extractivist model of development acts as both a material and an ideational hurdle to an appropriate response to the most severe climate impacts.

According to the Organisation for Economic Co-operation and Development and the World Bank, Chile became a high-income country in 2013 (World Bank Group n.d.). At the same time, however, it is also one of the most unequal countries in Latin America and the Caribbean (UNDP 2021). Many of our research participants referred to the country's economic status as a matter of identity. Negotiators note that Chile would not directly benefit from a loss and damage finance mechanism because of its income status, to which they refer (despite its high-status categorization) as "middle income." One stakeholder suggested that loss and damage was not a concern for Chile but for "less developed countries … Of course, because we are a middle-income country this is something that also does not act in our benefit from the international perspective …. Even now, when engagement is larger, this identity shapes the country's views, as for example, they do not believe climate finance would ever reach Chile" (Interview 7). Other actors shared this view of Chile as not benefiting from potential international loss and damage finance, suggesting that most UNFCCC regulation and financial instruments are mitigation-oriented, except for funds dedicated to developing policy instruments (Interviews 2, 10):

> The topic is very important. Regarding negotiations and what could one get from those, I do not know because I see more loss and damage in small island states, those countries that have no way around, really. Chile is a country that maybe is a bit better prepared, and I do not know if we will have so much loss and damage. (Interview 10)

At the same time, however, the same interviewee reckoned that "we have no knowledge either, we have not assessed loss and damage, for example. We know we are vulnerable; we know we can adapt, and adaptation has a limit, but we have not assessed what these losses and damages could be" (Interview 10).

A second way in which identity influences approaches to loss and damage in Chile is the model of development aligned with neoliberalism. Several actors identified the extractivist economic model as a limiting barrier to addressing climate change (Interviews 2, 3, 9). For example, water scarcity is severe and at least 25 percent attributable to climate change. It is already causing dramatic loss and damage and resulting in people being displaced to urban areas or to the south of Chile (Benfeld 2022; Montes 2021). Water scarcity is compounded by Chile's unique water governance model that allows for privatization of this key resource (Government of Chile 1981). Water rights are regulated in the Water Code of 1980 and the Chilean Constitution of the same year, which guarantees private and imprescriptible property of these rights (Government of Chile 1981). Only in 2005 was the Water Code amended to include an "ecologic flow" and a "human consumption flow" as limits to the assignment of water rights. These are only applicable to newly granted rights, but many water basins are already over-granted (Government of Chile 1981).

According to the first report of the National Water Table, in 2015 the agricultural sector was consuming 72.3 percent of the water supply (INDH 2021), with only 11.2 percent being distributed as drinking water (INDH 2021). However, over 47 percent of the population in Chile live in water scarcity zones, according to recent designations (Government of Chile 2020b). One interviewee brought up the avocado industry as an example of large-scale agriculture that entails the consumption of large amounts of water, even in areas of the country where populations are struggling to have access to drinking water. The interviewee framed it as a North–South extractivist dynamic:

> Almost 60 or 70 percent of the avocados we grow in Chile are for export .... A substantial percentage goes to Japan, China, and Europe in general, which are countries that can live perfectly fine without avocado, because it is a luxury. Guacamole, and sushi are fashionable, and those countries never limit themselves in consumption. Chile, México are emptying their water reservoirs to grow avocados. "I don't care, I don't see it. I want to eat avocado." (Interview 9)

The Petorca community is a paradigmatic example of this. Previously a traditional agriculture and kettle region, the concentration of water rights for avocado crops has led to significant loss of livelihood (Benfeld 2022; Montes 2021) and deprived small farmers and the local population of their access to drinking water (Interview 11). Because of the level of degradation, with the root cause being extractive activity, some actors refer to these areas in a similar way to the areas of coal mining, as "sacrifice areas." This situation has led to international and national activism and litigation. On March 23, 2021, the Supreme Court of Chile ruled in favor of the Chilean National Human Rights institution on a claim against the Petorca regional government and the Ministry of Health for their failure to guarantee access to water. The judgment

established a government duty to guarantee 100 liters of water per person per day (INDH 2021).

Regulation and water governance were signaled in our interviews as factors that place a hard limit on addressing water scarcity (Interview 4). When asked about the larger challenges to adaptation, one actor noted the "institutional limits" that any adaptation measures might face: "There is little control, several impacts …. There are many adaptation measures that could be implemented but there are institutional limits. They do not have the water rights for that" (Interview 4).

9.7 CONCLUSION

Table 9.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. This chapter shows that the Chilean presidency of COP25 led to a significantly larger engagement of the Chilean government and delegation with loss and damage in the international sphere, going from being uninvolved in loss and damage negotiations to leading the Santiago Network implementation discussion. This research unveils that, together with limited resources to fund delegates, the identity of Chile as a high-income country acted as a disincentive to prior engagement, based on the understanding that no loss and damage finance would benefit Chile. The presidency acted as a driver to take the lead on the topic at the international level, but the country's economic identity still acts as a constraint on the domestic development of adequate responses to loss and damage and on engagement with the loss and damage terminology, although there are some recent developments, such as the inclusion of loss and damage in the LMCC, the country's framework law.

Non-state actors are worried about Chile experiencing loss and damage, especially water scarcity. Nevertheless, they fail to engage with this concept at a policymaking level, nor do they participate in the international discussion. Loss and damage as a concept has not permeated Chilean civil society. This is not the case for government actors, who are increasingly engaging more with the concept, especially officers from DRM institutions and the MMA. This trend is limited by an institutional design that does not facilitate their ownership of the topic but acts instead as an obstacle to developing further loss and damage national governance. The relatively weak position of the MMA, the strict centralist government model, and the limited coordination among institutions were prompted by interviewees as the main barriers to engagement. Similarly, the example of water resource allocation, as well as the prioritization of agriculture over human consumption, indicates where Chile's governance priorities lie. Here we see how a national identity embedded in neoliberalism can not only fail to address climate impacts but also exacerbate them.

TABLE 9.1 *Summary of Chile*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Water scarcity • Increasing temperature • Heat waves and droughts • Reduced rainfall • Floods and landslides • Glacial retreat • Ocean acidification	• National Disaster Risk Reduction Policy 2020–2030 • Climate Change Framework Law (2022) • 2050 Long Term Climate Strategy • NDC (2020, updated) • 2022 Climate Change Adaptation Plan • Cost of inaction policy • Climate emergency declaration (2020, signed by several regional governments) • New Constitutional Convention (2022) contains explicit provision on climate crisis • NAP (2017) • First updated NDC (2020)	• COP25 changed country approach; historically, Chilean government relatively distant from discussions happening at international level (before COP25); used to be represented in loss and damage negotiations by AILAC • International instruments: UNFCCC and Sendai • International finance • Support from GIZ (financial support to produce a Risk Map ARClim 2019–2020)	• No explicit policy measures on loss and damage • Since COP25, Chile has been one of the main promotors of Santiago Network • At national level: emerging recognition and engagement with loss and damage (e.g., inclusion of three losses and damages commitments in the adaptation pillar of Chile's NDC and awareness about vulnerabilities and the need to address loss and damage from different sectors of society) • Government actors were largely familiar with loss and damage but tended to situate it as a concept relevant at international level • Institutional dynamics and design impede progress at national level: relative weakness of the Ministry of Environment compared	• Participants argued that Chile would not benefit from a loss and damage finance mechanism because of its middle-income country status ○ Civil society and DRM institutions do not share this approach and think loss and damage is a key issue for Chile and that international support is essential to address them • Extractivist model of development coupled with a dominant neoliberal ideology shapes the possibilities for action on adaptation and loss and damage • Civil society actors show little engagement with the international discussion and loss and damage framework • National loss and damage governance is highly reliant on research and science and cost–benefit analysis tools

(*continued*)

TABLE 9.1 (*continued*)

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
			to ministries related to productive sectors like agriculture, mining, fisheries, economy • Chile's sectoral approach to policymaking characterized by good level of detail but also fragmentation • High degree of centralization in Chile's political governance as a challenge for adaptation. The perception is that a more locally focused model is needed • Municipalities (Local Governments) Act gives local governments DRM-related functions, without fleshing out specific ways that would allow them to develop proactive programs; also challenge of limited resources to address climate change at municipality level	• Indigeneity is very important in practice and produces valuable knowledge; however, it is not very present in the national level regulation or integrated into research • A new constitution and a "green government" could be the beginning of a dramatic change in Chile climate policy, including loss and damages

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10

Conclusion

Lisa Vanhala and Elisa Calliari

10.1 INTRODUCTION

Over the last decade, much of the political action and attention on loss and damage governance has focused on the international climate change negotiations, but ultimately nation states are "first responders" when it comes to climate impacts. Yet with respect to loss and damage, we have little understanding of how, as an "object of global governance" (Allan 2017), the issue is being understood and shaped at the national level. Our research provides new insights on these dynamics, identifying how processes, norms, formal agreements, and informal dynamics matter differently across countries. As such, this book constitutes an important contribution in leading what we refer to as "the national turn" in research on loss and damage governance: a shift of scholarly focus to better understand the full range of drivers and consequences of loss and damage policy adoption across governance scales. We find that while, in many ways, the very concept of loss and damage is an international construct, its meaning is still being contested and reconstituted within and across governance scales.

At the international level, there are continuing discursive debates about the nature of loss and damage: whether it is a problem of risk and uncertainty on the one hand or harm and injustice on the other (Vanhala & Hestbaek 2016). At the national level, policymakers and practitioners face pressing issues that simply need to be dealt with. National policymakers across sectors deal with the implications of both environmental material realities and international legal outcomes in their respective fields of practice. We reveal some of these "horizontal dynamics" that emerge between differently situated individuals who operate across institutions, many with different paradigms for understanding climate risks and impacts. While we see those involved in climate policy development as critical actors in the governance of loss and damage, our

findings also point to the importance of a broader range of other stakeholders – whether understood as such or not. With the establishment of the Santiago Network on Loss and Damage (SNLD) at the twenty-fifth Conference of the Parties (COP25) in 2019 and the agreement to establish new funding arrangements, including a fund, at COP27 and their operationalization at COP28, this is an opportune moment to ask what countries are already doing to respond to the loss and damage they are experiencing and facing and what lessons can be learned from their experiences.

The case studies in this volume have revealed a diversity of outcomes. While each case is unique, we can also identify some patterns in how policymakers and other stakeholders are approaching policy adoption and innovation when it comes to climate change loss and damage. In this chapter, we first identify the key cross-cutting findings and outline our descriptive contribution to the study of loss and damage policy and politics. We also return here to the theoretical explanations presented in Chapter 2 that underpinned our iterative approach. We assess the relevance of these theoretical explanations across the individual cases to glean further insights, we show how our findings advance the comparative climate policy and politics literature, and we highlight topics and approaches that merit further exploration.

10.2 COMPARISON OF OUTCOMES: LEADERS AND LAGGARDS

The case studies in this volume have revealed significant variation in the levels of engagement with the concept of loss and damage at the national level. We find that there are several inherent challenges in directly comparing national policy and program measures given the different nature of risks these countries face and enormous variations in regime types, institutional arrangements, and the contingencies of national-level politics.

Table 10.1 summarizes each country's policy engagement with the loss and damage issue, taking into account explicit mentions in three key sources: national-level policies, national communications to the United Nations Framework Convention on Climate Change (UNFCCC), and Nationally Determined Contribution (NDC). We find that, of the countries studied in this volume, Antigua and Barbuda, Tuvalu, and Bangladesh have moved the furthest in terms of incorporating explicit considerations of climate change loss and damage in their national policies and their engagement with the UNFCCC. Antigua and Barbuda treats this most explicitly as an issue "beyond adaptation" whereas in the case of Tuvalu loss and damage measures sit along a spectrum with adaptation actions. In Bangladesh, considerations of loss and damage often overlap with work on disaster risk. All these countries have played a leadership role on the issue within the international negotiations, both with respect to climate finance for loss and damage and the adoption and early years of the Warsaw International Mechanism for Loss and Damage (WIM).

TABLE 10.1 *Summary of evidence of policy relevance of loss and damage across case studies*

Country	Are there loss and damage-specific policies (or have policy proposals been put forward)?	Is loss and damage mentioned in its national communications to the UNFCCC? If so, how?	Is loss and damage mentioned in its NDCs? If so, how?
Tuvalu	• Te Kaniva (2012), the first climate policy, explicitly mentions loss and damage under Goal 1 on strengthening adaptation actions. • Loss and damage is mentioned in Te Kakeega III (TKIII) 2016–2020, i.e., Tuvalu's eighth National Development Plan. • The 2019 Climate Change Resilience Act gives a legal foundation to loss and damage by including "Addressing loss & damage associated with climate change" as one of its eight policy objectives. • The Tuvalu Infrastructure Strategy and Investment Plan (2016–2025) – falling under TKIII – identifies climate change impacts causing "loss and damage" to assets, and measures to protect them. • The 2021 national climate change policy (Te Vaka Fenua o Tuvalu, 2021–2030) prioritizes the integration of loss and damage in all adaptation projects and programs, and risk management processes of the government.	• The second communication (NC2, 2018) explicitly mentions "significant loss and damage to houses, infrastructure and livelihoods."	No.

(*continued*)

TABLE 10.1 (*continued*)

Country	Are there loss and damage-specific policies (or have policy proposals been put forward)?	Is loss and damage mentioned in its national communications to the UNFCCC? If so, how?	Is loss and damage mentioned in its NDCs? If so, how?
Antigua and Barbuda	• Loss and damage is explicitly mentioned in the 2019 Environmental Protection and Management Act in the context of setting up the architecture for a potential funding mechanism.	• The second communication (NC2, 2011) mentions loss and damage explicitly once in the context of adaptation strategies. • The third communication (NC3, 2016) mentions loss and damage in the context of a "loss and damage mechanism" to support farmers, fishers, and residential and business owners to cope with loss and damage. There is also a mention of economic losses and damages.	The opening message from the prime minister mentions loss and damage in relation to response programs for disaster recovery. Subchapter (7.4) on "Loss and Damage Response" lists loss and damage-related risks, mentioning both economic and noneconomic loss and damage and highlighting the need for resilience-building. The document also includes "loss and damage tracking and reporting" as part of the country's envisioned climate action and progress reporting system.
The Bahamas	No	No	No
Peru	The Climate Change Framework Law does not include any reference to loss and damage. Yet the issue featured prominently in one of the discussed legislative proposals (N.729), which included several references to loss and damage (e.g., Articles 2 and 9) and a dedicated loss and damage article (Article 16).	The third communication (NC3, 2016) explicitly mentions "*daños y pérdidas*" (losses and damages) in the context of adaptation and vulnerability as well as in the context of economic loss and damage.	"*[P]erdidas y daños*" is mentioned when describing the content of the regulations of the Climate Change Framework Law.

Chile	Loss and damage is mentioned in the Framework Law on Climate Change. Article 3 defines "*daños y pérdidas*" as the economic, social, and environmental "impacts caused by climate change to which a territory and its population are exposed."	The fourth communication (NC4, 2021) mentions "*daños y pérdidas*" explicitly in the context of vulnerability and indigenous people as well as in the context of needs to better evaluate them.	"*Daños y pérdidas*" is mentioned once in the context of extreme events. The document also mentions the "economic costs for historical losses and damages" (*costos por pérdidas y daños históricos*).
Ethiopia	No	No	No
Bangladesh	Loss and damage is mentioned in the Mujib Climate Prosperity Plan (2021).	The third communication (NC3, 2018) has a section dedicated to "Loss and damage" (pp. 210–211) which mostly focuses on economic loss and damage.	No

At the other end of the spectrum, two countries we might expect to be leading on policy innovation and adoption given their respective vulnerabilities, The Bahamas and Ethiopia, have been slower to adopt new governance measures to deal with loss and damage. Both countries have focused predominantly on climate change mitigation. Ethiopia's reputation as a green economy leader over the last decade has included considerations of climate change resilience, and there is growing awareness among policymakers and stakeholders of the consequences of climate change for the country. However, loss and damage has to-date not featured prominently or explicitly in national policies or communications to the UNFCCC. In many ways, the case of The Bahamas is perhaps the most surprising outcome: Despite the experience of more intense tropical storms and hurricanes, the country has been slow to adopt explicit mentions of climate change loss and damage, and it has not released a National Adaptation Plan (NAP) since 2005.

The cases of Peru and Chile are interesting in tracking the trajectory of countries that have been less involved in advancing the loss and damage issue at the international level and yet have begun to understand its relevance for national policy. Chile has included explicit mention of "losses and damages" in the new climate change framework law; Peru has not, but the issue did feature prominently in one of the legislative proposals and in the draft versions of the law. The removal of this language, related to ideological positioning and concerns about potential climate change litigation, offers theory-relevant insights into some of the reasons political leaders may be reluctant to be explicit about climate change loss and damage in national-level policy debates.

10.3 CLIMATE CHANGE RISKS AND IMPACTS

In Chapter 2, we noted that vulnerability to climate change risks and impacts could drive states to adopt climate change loss and damage policies. Recent research in both comparative and international politics has increasingly incorporated measures of vulnerability to climate change to explain variation in public opinion (Massey et al. 2014; Soni & Mistur 2022; Zahran et al. 2008), the building of climate coalitions (Gaikwad et al. 2022), and state behavior both within and beyond the international climate change regime (Colgan et al. 2021; Genovese 2020). Yet research on the links between climate change impacts, public opinion, and policy adoption is inconclusive and has largely focused on the Global North (but see, e.g., Gaikwad et al. 2022; Genovese 2020). Our set of cases – Global South countries which all face significant climate change risks – does not allow us to draw any firm conclusions about how climate change risks relate to policy adoption and innovation, but we identify some preliminary insights that future research could build on.

Within both Caribbean countries, Antigua and Barbuda and The Bahamas, research participants pointed to the experience of storms as focusing the minds of political leaders, but we lack any comparative data to suggest how levels

of public awareness might be shaping this across countries. Future research could conduct this type of data collection to understand whether and how extreme weather events shape both citizens' and political leaders' commitments to developing governance responses at the international and national levels. We suggest that particularly in the early stages of the policy development cycle – that is, in the construction of the object of governance and in the agenda-setting phase – there is merit in exploring the ways in which policymakers conceptualize and operationalize loss and damage policies.

Most of our research participants focused on the extreme weather events their countries were facing. While a minority of interviewees mentioned slow onset events (SOEs), these tended to be secondary to the various forms of rapid onset events each country was facing. Existing research in the social sciences on natural disasters and the impacts of climate change has also focused on extreme events, such as wildfires, floods, and storms (Egan & Mullin 2012; Kim & Wolinsky-Nahmias 2014; but see Lujala & Lein 2020). Thomas and Benjamin (2018a) note that the problems policymakers face in Small Island Developing States (SIDS) – a lack of data, gaps in financial assessments, and a lack of policies or mechanisms targeted at loss and damage – are most acute in relation to SOEs. Our research affirms this. Future research could build on our descriptive findings to begin to identify differences between how extreme weather and SOEs shape political beliefs among both the public and policymakers and how this influences the likelihood of policy adoption and implementation. Further distinguishing between hazard types within these categories – such as floods and wildfires in the former and increasing temperatures and rising sea levels in the latter – would also help in understanding the processes that link specific types of climate vulnerabilities with policy adoption.

While our focus was on trying to understand what drives policy adoption, we did identify another interesting dynamic between climate change risks and impacts on one hand and institutions on the other. A key finding of our research is that climate change risks and impacts are disrupting existing institutional landscapes across a number of different countries and are leading in particular to the establishment of new institutions and processes empowering existing ones. The establishment of the Ministry of Disaster Preparedness, Management and Reconstruction in The Bahamas after Hurricane Dorian in 2019 and the role of Cyclone Pam in 2015 in adjusting the focus and mandate of the Climate Change Department and driving the emergence of new bodies, such as the Climate Change and Disaster Survival Fund in Tuvalu in 2016, are examples of institutional innovation triggered by climate change-related events. We also found examples of innovation in collaborative activity across ministries. For example, in Chile the Gender and Climate Change Inter-institutional Working Group, which was formed in 2019 as part of the COP presidency activities, integrated the Gender Negotiating Cluster of the Ministry of Foreign Affairs, the Climate Change and International Affairs Offices of the Ministry

of the Environment, and the Ministry of Women and Gender Equality. We see this in other jurisdictions as well, beyond the case studies considered in this book. For example, after much of the infrastructure in Dominica (not one of our case studies) was destroyed during the 2017 hurricane season, the government established the Climate Resilience Executive Agency of Dominica, a statutory government agency, which has since sought to make Dominica the first climate-resilient nation in the world. The government has adopted a strategic plan with twenty key targets to augment the country's climate resilience.

These examples of institutional innovation take the focus off mitigation, and recent innovative studies have provided an alternative perspective on the interrelationship between political institutions and climate change (Dubash 2021; Hochstetler 2021; Mildenberger 2021; Teng & Wang 2021; Valiathan Pillai & Dubash 2021). Whereas most research in this vein has tended to focus on institutions as the explanatory variable in accounting for the adoption of climate policy, scholars are increasingly querying the conditions under which climate institutions emerge. The findings from our study raise new questions about both the climatic and the political conditions that account for the emergence of new institutions or the layering of new forms of power and additional resources onto previously existing organizations (see Mildenberger 2021). Our insights about the disruptive impacts of climate change in the Global South countries we study – SIDS, least developed countries (LDCs), and smaller emerging economies – complement existing explanations about the ways in which climate change impacts shape political behavior and outcomes in the Global North and emerging economies (Gaikwad et al. 2022; Naess et al. 2005).

We also identified several ways in which climate change-related events shifted more diffuse institutions such as property tenure regimes. The shift from commonhold land tenure and land-use practices to a private property model in Barbuda after the 2017 hurricane season is one such example. Examining the case of Antigua and Barbuda, some scholars have argued that path dependencies since colonialism can help to account for the construction of social vulnerability to climate change impacts. We therefore suggest that future research could take a long historical time span to better understand how more diffuse institutional forms and slower moving governance processes are shifting because of the impacts of climate change (Falkner 2024; Park 2022).

10.4 INTERNATIONAL ENGAGEMENT

While the material realities of loss and damage associated with climate change are undeniable and manifest at the local level, when shifting to the international level we can understand "climate change loss and damage" as both a material manifestation and a sociopolitical construct, or what Allan (2017) has referred to as an "object of global governance." Social science research has articulated the wide range of understandings among international actors of what loss and damage encompasses (Boyd et al. 2017; Calliari 2016; Vanhala

& Hestbaek 2016) and the implications of these different understandings for where responsibility for responding to loss and damage should lie (Vanhala 2023). Rich countries have consistently eschewed claims of responsibility and rejected notions of liability and compensation forcefully within the UNFCCC. They have consistently argued that a country-driven or national approach is best when grappling with loss and damage. Developing countries and their civil society allies, on the other hand, highlight the profound injustice of climate change impacts and have advocated for a robust set of international institutions and sufficient levels of climate finance to support those countries that are particularly vulnerable to loss and damage. The failure to advance global governance at a sufficient pace has meant that there has been a "national-level default" in response to the question of who is going to help to remedy some of the harm caused by climate change impacts. Yet we do find that international engagement broadly conceived can matter in terms of shaping early policy development on loss and damage.

10.4.1 Engagement with International Organizations

Among our case studies, we found that those countries that have tended to be involved in the early stages of international engagement on the loss and damage issue were also leading thinking on the issue of loss and damage "at home" (Calliari & Ryder 2023). For example, over many years, negotiators from Tuvalu – including Ian Fry, who was the Special Rapporteur on Human Rights and Climate Change between May 2022 and December 2023 – have played a key role in advocating on loss and damage within the UNFCCC. Similarly, the role of negotiators from Antigua and Barbuda in discussions about climate finance led to the insertion of explicit language on climate finance to address loss and damage in that country's Environmental Protection and Management Act in 2019. Antigua and Barbuda's negotiators also successfully led the efforts of the G77 plus China to push for the adoption of a new loss and damage fund in 2022.

We therefore posit that SIDS civil servants can play a bridging role in shaping knowledge, norms, and policy at both the international and the national level based on their learning and socialization at the other level. Many negotiators from the Global South also play operational roles at the domestic level. While existing literature has highlighted this as a weakness in the negotiations in terms of delegation capacity (Depledge 2005), our research suggests that under certain circumstances and particularly when individuals are able to create synergies between their domestic and international roles, there are also advantages to having this bridge of knowledge and experience. We suggest that the existence of individuals who are willing and able to play this bridging role can help to account for early policy adoption and innovation at the national level. Future research could explore potential micro-level mechanisms in the early stages of climate policy development to better understand what drives the early adoption of specific kinds of measures.

Based on the case of Chile, and its evolving relationship with the loss and damage agenda at the international level – from almost no engagement on the issue in the mid 2010s to playing a key role in the establishment and operationalization of the SNLD – we also suggest there could be meso-level mechanisms in operation whereby states take on leadership roles, like that of the COP presidency, and then become upskilled in new issues at a delegation level. This can then similarly trickle into domestic-level policy thinking and practices at home. Holding the COP presidency usually acts as an incentive for upgrading national climate policy frameworks in general. Engagement with specific issues like loss and damage is more dependent on the topics that are on the COP agenda in a country's presidency year and the way negotiations unfold. For example, Chile as the COP president had to engage with loss and damage as it turned out to be one of the critical issues at COP25. This kickstarted the inclusion of loss and damage in the national climate change framework law. However, this was not the case of Peru, which held the COP presidency in 2014, arguably because a significant outcome had been achieved the year before with the establishment of the WIM, and the Peruvian presidency team engaged with the issue of loss and damage in a limited manner.

We also identify a mechanism operating at the negotiations level, whereby the membership in a negotiating coalition within the UNFCCC may shape involvement or nonengagement with the issue domestically. Our case studies of Peru and Chile are illustrative of this. They show how perceptions of national self-identities as middle-income countries in the UNFCCC regime meant that negotiators and other stakeholders tended not to see loss and damage as an issue that was particularly relevant to them. However, we find that the interest of the Independent Association of Latin America and the Caribbean in loss and damage slightly changed since the establishment of the SNLD, as the latter is perceived to move the discussion away from compensation and liability claims and to provide an opportunity for countries to receive technical assistance. Future research could explore how these recent developments in negotiations affect the engagement of nontraditional loss and damage players both internationally and domestically.

An empirical finding that surprised us, given our starting point within the UNFCCC, was the wide range and number of other international organizations and UN regimes that policy stakeholders mentioned in our research interviews. Many of these were referred to by research participants more often or were seen as more relevant than the UNFCCC when discussing the types of issues that have been classified as loss and damage within the UNFCCC. This included organizations like the United Nations Office for Disaster Risk Reduction and the Sendai Framework; the World Bank; the United Nations Convention on the Law of the Sea and the International Tribunal for the Law of the Sea; the United Nations Convention to Combat Desertification and the Convention on Biological Diversity; and regional bodies like the Pacific Community, the Caribbean Disaster Emergency Management Agency, and the

Caribbean Community. The case studies also track the ways in which new bodies are being established: For example, at COP26 in Glasgow the prime ministers of Antigua and Barbuda and Tuvalu launched a Commission of Small Island Developing States and International Law to explore various ways and forums in which international law could be brought to bear on the problem of loss and damage arising from climate change. Finally, the case of Bangladesh and its involvement in the Climate Vulnerable Forum highlighted the role of less formalized international partnerships in shaping the loss and damage discussions in the climate regime.

We found that those working in disaster risk reduction across countries, in particular, were able to highlight some of the conflicts and ideational tensions between discussions about loss and damage in the UNFCCC and efforts in the disaster risk reduction realm. This point is an important one to consider for those who argue that top-down diffusion mechanisms drive policy change: Our findings suggest that there may be competing conceptualizations of the governance problem to be dealt with as a result of what Keohane and Victor (2011) refer to as the "regime complex." Under some circumstances, international engagement, which is generally understood as a driver of climate action, can also be a barrier to national policy development. This has been shown in the case of mitigation. For example, in Chile one research participant suggested there was the possibility of establishing a decarbonization target of 2040 in Chile's national framework law, but agreement at the international level meant that this ambition was lowered to establish a 2050 target in line with Paris Agreement commitments.

Future research could explore this wider institutional and legal landscape when understanding how international factors shape loss and damage policymaking at the national level. Green (2024) argues that a new stream of research in political science sees climate change not only as a collective action problem or one of domestic distributive politics (see also Aklin & Mildenberger 2020; Bayer & Genovese 2020; Finnegan 2022) but also as one of "existential politics" that threatens the value of assets through changing climatic conditions and a shifting regulatory landscape (Colgan et al. 2021). Green (2024) makes the case that taxation and trade institutions could help to accelerate decarbonization. Our findings on loss and damage politics could be enhanced by further research into the conditions under which a broad range of international organizations are beginning to navigate loss and damage.

10.4.2 Financial Incentives from International Funds

Previous research on the adoption of climate policy has highlighted the ways in which financial incentives can increase the likelihood of domestic political action. At the time this research was undertaken (between 2019 and 2021), there were no explicit funds available for addressing loss and damage within the UNFCCC (although that landscape has changed profoundly

in recent years). Even so, stakeholders across countries were aware of other sources of international funding, including climate change adaptation funding, post-disaster response, humanitarian sources, insurance schemes, and funding for projects related to climate-resilient sustainable development. To our surprise, the expectation of potential or future finance on loss and damage was mentioned by stakeholders across countries in discussions about action on loss and damage at the national level, including in Ethiopia, Bangladesh, and Antigua and Barbuda. In Bangladesh, research participants noted that the establishment of a dedicated fund for loss and damage under the UNFCCC could act as an incentive for reviving the concept of a national mechanism for loss and damage. Antigua and Barbuda explicitly mentions international finance in its domestic legislation in the context of setting up the institutional architecture for a potential funding mechanism. In Chile and Peru, interviewees shared the perception that any future funding on loss and damage would be mainly for SIDS and LDCs, but the types of technical assistance that might be provided by the SNLD were seen as potentially relevant.

However, it is important again to note the broader funding environment and how different streams of climate finance may potentially undercut each other's objectives. This has long been a debate in discussions about the relationship between mitigation and adaptation, and bringing in considerations of loss and damage only increases the complexity of the issue. Some of our case studies suggest that under circumstances of limited state capacity a disproportionate emphasis on finance for mitigation efforts can undermine effective policy development on loss and damage. When countries receive funding to develop and implement mitigation policies, this could be diverting attention away from important adaptation and loss and damage measures that may fundamentally be more important for the citizens of those countries that are particularly vulnerable. Peru provides a key example in this respect. The country has been placing considerable emphasis on reducing emission from deforestation and forest degradation, not only because this accounts for more than half of its national greenhouse gas emissions but also because – as our interviewees noted – it provides opportunities for international support through "reducing emissions from deforestation and degradation" schemes.

10.4.3 Policy Diffusion

While several mechanisms of policy diffusion have been articulated in existing literature on the spread of environmental policy, we noted in Chapter 2 that studying the early stages of loss and damage policy adoption requires a different approach. We thus join recent scholarship stressing the benefit of focusing on stages prior to policy adoption, and pointing to the centrality of issue definition in the diffusion process and the way diffusion plays a key role in issue definition (Gilardi et al. 2021). This approach recognizes that the policy process is made of different stages, starting with the definition of an issue,

which only later culminates – but not always – with the adoption of a policy. Consistently, we kept our analysis open to understand how policy frames elaborated in the UNFCCC context might affect the way the issue is understood and discussed at the national level, including which elements of the frame are embraced and which are rejected, and whether this results in policy adoption.

We found that the way loss and damage has been framed internationally affects the extent to which countries will engage with the issue. This was evident in our Peru and Chile case studies, where several research participants explained their country's limited engagement with loss and damage by framing it as "money for the poor," and thus something for SIDS and LDCs rather than middle-income countries. The case of Ethiopia similarly explores this broadened framing by showing how policymakers are beginning to understand the relevance of this issue even in a landlocked country. This deepens our understanding of how issue-framing matters and builds on previous research that traced how and when the LDCs and African countries began to see loss and damage as also relevant for them – expanding it from its original framing as an issue for SIDS (Vanhala & Hestbaek 2016). Our cases also show that issue definition at the national level can partly depart from the international one. In climate negotiations, developing countries argue for an explicit distinction between adaptation and loss and damage. Yet this can be different at the country level. In Tuvalu, we found that public sector stakeholders understand loss and damage along a continuum with adaptation because it is not seen as "practical" to distinguish between the two.

10.5 INSTITUTIONAL CONTEXT

The types of political systems and institutions that have been shown to shape climate change mitigation policies are varied. Chapter 2 traced the emergent literature on the comparative political economy of climate change mitigation. For scholars working in this vein, factors such as the type of political regime (democratic, transitioning countries, and authoritarian regimes), the nature of the electoral system (proportional representation versus first-past-the-post systems), and the party system (multiparty versus two-party systems), the processes for the mediation of political interests, including business, civil society organizations, and social movements (corporatist arrangements versus pluralist processes), and the degree of centralization (federal versus centralized countries) can all shape the effective navigation of the distributional politics of addressing climate change and the energy transition. These variables have been used to account for cross-national differences in the adoption and implementation of effective climate mitigation policies. Our research design and the nascent nature of loss and damage policy development meant that these types of institutional considerations were not yet at the forefront of our research participants' understandings of what matters in loss and damage policymaking. Instead, we identify the other factors that were seen as important in accounting

for policy adoption and innovation in this realm. Our empirically grounded approach has revealed new insights about institutions in a novel area of climate policy.

10.5.1 Political Leadership

We find some evidence to suggest that individual leadership on the loss and damage issues may matter in explaining the different approaches to loss and damage policy engagement. This is true in the case of Antigua and Barbuda, where members of the Department of the Environment introduced elements of the international discussions on loss and damage into domestic legislation. It has also played a role in Chile, where climate activists were able to seize on the Constitutional Convention process to insert progressive language. However, this case also highlights how the broader political landscape can shape what is possible: The proposed text was ultimately rejected by the electorate in the September 2022 referendum on the draft constitution. Similarly, the Peru case shows how party politics can constrain the uptake of loss and damage language, as the latter was put forward by a left-wing party in a congress dominated by the conservative party. In the case of Antigua and Barbuda, we found that different branches of government have varying incentives for enhancing the understanding of climate change risks and potential future impacts: The Department of Environment sought to deepen understanding and make the evidence transparent, whereas those in the Ministry of Finance were more cautious given the importance of tourism and private sector development to the nation's economy.

10.5.2 Institutional Capacity

With the recent "institutional turn" in the study of comparative climate politics, there has been increased scholarly attention on the role of institutional capacity in the politics of decarbonization (Meckling & Nahm 2018, 2022). In the field of climate change adaptation, institutions have long been acknowledged as crucial determinants of adaptive capacity and can also help to explain where and how insufficient levels of adaptive capacity result in loss and damage (Engle 2011; Smit & Pilifosova 2001). This chapter echoes recent research in noting that institutional capacity facilitates policy and institutional innovation and experimentation. A lack of institutional capacity, including insufficient cooperation and coordination among relevant actors, was highlighted as a barrier to the development of effective governance measures to address losses and damages across all our case studies.

Our empirical research also uncovered several potential mechanisms that can help to account for the policy outcomes that merit further research across cases and over time. First, across several countries, research participants pointed to the relative institutional capacities of various ministries to account

for whether loss and damage received attention from political elites and policymakers. In Chile and Peru, in particular, research participants suggested that the ministries tasked with climate policy and governance were less well resourced and less powerful than ministries dealing with energy, mining, or finance. This affirms a long-standing finding in the literature on environmental politics that environment ministries tend to be weak relative to other government ministries, particularly those focused on finance, resources, and economic growth (Aamodt 2018; Aklin & Urpelainen 2014). Second, another potential barrier to the development of policy on loss and damage concerns the degree of coherence and coordination required on this multidisciplinary, multifaceted issue. For example, in Chile, one research participant involved with the development of policy on human mobility and climate change noted that there was a preference to focus on the humanitarian side of loss and damage because this was the focus of the organization that is tasked to deal with it. This coheres with previous research on the politics of loss and damage and the institutional implications of different ways of framing the issue as a problem either of risk and uncertainty or of harm and injustice (Vanhala 2023; Vanhala & Hestbaek 2016). Finally, in The Bahamas, one research participant noted that a mechanism of generational change among civil servants could play a role in prompting greater awareness and action on climate change generally and loss and damage more specifically. This micro-level mechanism could be explored in future research using large-n studies to better understand how this may drive institutional change and shape priorities. While existing research has traced this type of generational shift in Global North contexts (e.g., Morag-Levine 2003) we need to gain a better understanding of how the beliefs and values of policymakers shape policymaking processes in the Global South.

10.5.3 Pressure from Civil Society and Business Actors

Previous research has noted that non-governmental organizations (NGOs) have shown themselves to be influential when pushing for policy change. Our evidence on the role of civil society and business actors is fairly thin: Few research participants invoked either category of stakeholders in our discussions. An exception is the case of Bangladesh, where research participants mentioned the important role played by NGOs in advocating for a greater integration of the concept of loss and damage in national policymaking and resulting in its inclusion in the Mujib Climate Prosperity Plan. In the case of Peru, several research participants described the lack of civil society support for the inclusion of loss and damage in the climate change law as a key factor in explaining why it did not make it into the final text. We were surprised by the lack of mention of these types of actors in our policy stakeholder interviews given the extensive focus in contemporary political science literature on the role of business, labor, and civil society organizations (Falzon et al. 2023; Finnegan 2022; Mildenberger 2020). Further research is needed to understand the political

interests and policy engagement of insurance companies that face a growing wave of climate risks around the world. Future research could also begin to explore how a variety of non-state actors, from sectors including NGOs, labor unions, and business interests (including and beyond the insurance sector), engage with the politics of loss and damage at the domestic level.

10.6 IDEATIONAL CONTEXT

A final set of factors we have sought to better understand concerns the ideational context within which policymakers are situated. We are interested in how knowledge, values, and norms affect the actions of policy stakeholders and how they act as drivers of – or barriers to – policy innovation or adoption. While it is difficult to draw any clear-cut patterns across our case studies, we offer some empirical insights and draw out some theoretical implications which can be explored in future research.

10.6.1 Development Paradigms

Levels of development, as expressed by indicators like gross domestic product, have been put forth as a key factor to account for the adoption of climate change policy (Held et al. 2013). Our case studies find that the economic paradigms that countries pursue help us to better understand how they engage with the concept of loss and damage. For instance, in both Peru and Chile, stakeholders referred to their countries' extractivist economic models and neoliberal ideologies as key constraints for the uptake of bold climate-related policies, including those dealing with loss and damage. These views also align with the idea that loss and damage is not relevant for middle-income countries like Peru and Chile but rather a concern for poorer countries like SIDS and LDCs. Another example is Antigua and Barbuda as a "tourism economy," where efforts to strengthen scientific information about climate change-related hotspots have been thwarted by the argument that tourism is the largest single economic sector and it would not make economic sense to highlight climate risks to potential investors. These examples show how commitment to existing economic paradigms can be in tension with the effective governance of loss and damage. On a slightly different note, the case of Ethiopia and its ambition to become a "green economy front-runner" can help explain the relative emphasis on mitigation over adaptation within its policies and the limited focus on loss and damage.

10.6.2 Scientific Research and Other Forms of Knowledge

Our research has affirmed existing work that has decried the unfairness globally in terms of the emerging "science of loss": We know far more about loss in the Global North than in the Global South. Policy stakeholders across our case

studies highlighted the many ways in which gaps in data limited their capacity to manage climate risks effectively. For instance, stakeholders in both Tuvalu and Bangladesh lamented the lack of comprehensive assessment tools as a key factor limiting evidence around loss and damage (in the case of Tuvalu, this was reported as one of the reasons why a discussion of loss and damage was not included in its NAP).

However, we were struck by two findings that were shared across several cases, particularly those in smaller jurisdictions. First, those developing new policies or practices concerning loss and damage often relied on traditional forms of knowledge as well as evidence gathered anecdotally at the community level. For example, civil servants working on fisheries in Antigua and Barbuda and The Bahamas noted that they liaised regularly with fishers to better understand what was happening with fish stocks. Subtle changes detected by those whose livelihoods depend on fish and shellfish populations were then fed into the knowledge base relied on by policymakers. In this way, as much research has attested, it is worth further studying the role of community-generated knowledge in acting as a driver in policy innovation (McNamara & Buggy 2017; Petzold et al. 2020).

Second, the case of Antigua and Barbuda underscores some of the ways in which siloed approaches to policy can act as a barrier to knowledge generation and dissemination, with tussles over how transparent data about future climate risks should be. The case of Antigua and Barbuda exemplifies why some stakeholders may not be keen to share information that could be detrimental to the state's investments or development prospects, whereas others see this information as critical to being proactive about development decisions and potentially useful in eliciting climate finance to build resilience. Our research highlights how developing a science of loss can have psychological, social, and political consequences that researchers will need to navigate.

10.6.3 Normative Landscape

Recent research has highlighted the potential for norms to play a more significant role in the politics of climate change at the global level, yet it has focused almost exclusively on norms in relation to decarbonization, specifically anti-fossil fuel norms (Busby & Urpelainen 2020; Green 2018; Sikkink 2023) and those focused on a "just transition" from polluting sources of energy to renewables. Our research highlights how norms are emerging on the topic of loss and damage in ways that may shape the likelihood of policy engagement. We found that ideas around liability and compensation, which have been cornerstones in developing countries' framing of loss and damage in the UNFCCC, seem to play out very differently at the national level. We found that the process of translating ideas from the international to the national level resulted in a reversal of liability from Global North governments to Global South governments, and a subsequent nervousness about the potentially

negative consequences of integrating loss and damage into national policy. For instance, in Peru a key reason for scrapping references to loss and damage in the Climate Change Framework Law proposal was that it would have created a dedicated loss and damage fund, thus placing responsibility on the national state with implications for national resources. Similarly, the case of Antigua and Barbuda highlighted a tension between gathering better and more data to assist with loss and damage assessments and with predicting potential future losses and damages on the one hand and the potential liability of national governments that might come with this information particularly when it is associated with investment decisions on the other hand.

On a related note, we expect that the growing phenomenon of climate change litigation may also shape future policy developments. Although the idea of litigation is peripheral to our case studies, we can imagine that it will play a role as a method for both prompting policy development and encouraging effective implementation. Litigation will also matter in clarifying legal meaning and resolving norm conflicts in the face of climate change risks and future loss and damage.

10.7 CONCLUSION

This book highlights the central role that national governments already play in tackling climate change loss and damage, their successes, and the myriad barriers they face. In doing so, it shows the way to more effective governance as nation states continue to bear the brunt of loss and damage policymaking. We have identified policy innovations in sectors from fisheries to finance, shown how new institutional linkages allow countries to better address issues such as climate-related internal displacement, and highlighted how different forms of knowledge – from local and lived experience to historical disaster data – can supplement a lack of systematic information in policymaking processes. We have also drawn attention to the role of ideas in climate policymaking, showing how some states' desires to cultivate a particular national identity (e.g., as an "emerging economy" or as a "green economy leader") in the international sphere or the pursuit of specific development paradigms affect the ways and the extent to which they engage with loss and damage as a policy domain.

Given the increasing intensity and frequency of extreme weather events and the cascading and compounding risks of SOEs, effective policymaking on loss and damage is needed more urgently than ever. The policy framework on loss and damage is now, after many years of slow progress, developing more quickly with the operationalization of a fund for loss and damage, a consideration of other types of funding arrangements, and the enhancement of technical capacity in the form of the SNLD. We see a pressing need for further research both to enhance the "social science of loss" that is emerging as a new area of climate change research and to inform these policy discussions.

The case studies here show that the affected actors, dynamics, and distributional conflicts of loss and damage will be profoundly different from those in the realm of climate change mitigation. They will be different even across the varied domains of loss and damage policymaking – from coastal erosion prevention to drought recovery, to building back better after extreme weather events, to the mental health impacts of climate disasters, to different forms of climate change migration. The distributive politics of loss and damage will be highly context dependent and culturally defined. In comparison with actors affected by the energy transition, which tend to be comparable in at least some minimal ways from jurisdiction to jurisdiction, it is difficult to generalize at this stage about the winners and losers in loss and damage policymaking. For example, consider the range of actors, processes, and the distributional conflicts associated with the expansion of insurance policies for climate change-driven crop failures, the planned relocation of communities because of rising sea levels and coastal erosion, and policy responses to the mental health impacts of climate change. As an emerging topic of research, our grounded empirical approach offers a way to begin to better understand some of these complex and varied dynamics. At the same time, we acknowledge that of course much remains unexplored in our account. In drawing to a close, we summarize the three main areas we think will be most fruitful for future research.

First, it would be useful to expand the type of analysis we offer in this book to a wider set of cases, including in the Global North. This book delved into seven original empirical case studies – all the countries we chose were from the Global South and represented most-likely cases of engagement with loss and damage, given their role in advancing the loss and damage agenda in climate negotiations (e.g., SIDS or LDCs) or their exposure and vulnerability to climate change impacts. Future research could focus on a wider set of vulnerable countries but also target vulnerable communities facing loss and damage in richer, developed nations. For instance, climate change in the Arctic region is happening about twice as fast as the global average, and Arctic communities, including Indigenous communities, are facing severe environmental and social transformations, comparable to those experienced in the South (e.g., migration). Research could focus on how these communities are dealing with loss and damage and how their home countries are responding to this from a policy perspective. It could also explore the experiences of Indigenous communities whose homelands – like in the case of the Sámi people – transcend nation state boundaries and whose protection from climate change impacts might require forms of transboundary cooperation.

Second, political scientists are particularly well placed to expand the range of factors that can explain variation in loss and damage policy development across countries. While our theoretical framework focused on a defined set of possible explanatory factors, in Chapter 2 we recognized that other factors could play an important role but could not be fully investigated because of

our research design. For example, across our case studies we have relatively little data on public attitudes toward climate change loss and damage and its related policies (Thomas & Benjamin 2018b). Future research could focus on measuring public attitudes toward a variety of risks and hazards associated with climate change, such as drought, flooding, and wildfires, compared to SOEs such as coastal erosion or desertification to complement the emerging literature within and beyond political science. Some of our case studies also highlighted the potential role of political parties in advancing awareness and policy development on loss and damage, but this was not an issue that we explored systematically. Similarly, our research design did not allow us to disentangle the theoretical importance of certain types of political institutions, such as regime type or the incentives and constraints that lie within different electoral systems, in accounting for climate policy adoption in relation to loss and damage. Future quantitatively oriented work could examine whether regime type matters in the adoption of different types of climate change policies from mitigation to adaptation to loss and damage and geoengineering.

Finally, the relationship between loss and damage and adaptation is an ongoing area of research with particular relevance for policy approaches and with potential financial implications over time. In the discussions to establish the new loss and damage fund that was agreed upon at COP27, there were challenges in trying to distinguish between approaches. Planned relocation and permanent migration have been posited as viable adaptation options or as examples of grievous loss and damage by different research communities (McNamara et al. 2018), exemplifying the challenges of sharply differentiating adaptation from loss and damage. Other conceptually distinct but practically and empirically murky dichotomies include the differentiation between loss on one hand and damage on the other, the distinction between noneconomic and economic losses, and the categories of impacts resulting from extreme weather and SOEs. To better understand how different types of climate vulnerabilities matter for national politics and policy, future research should tease apart the effects and mechanisms linking climate risks, vulnerabilities and political opinion, policy outcomes, and institutional consequences.

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Appendix: Table of Interviews

Interview reference	Organization	Date of interview
	Tuvalu (Chapter 3)	
1	Department of Climate Change and Disaster	September 3, 2019
2	Department of Climate Change and Disaster	September 3, 2019
3	National NGO	September 3, 2019
4	Association of NGOs	September 3, 2019
5	International organization	September 4, 2019
6	Department of Environment	September 4, 2019
7	Department of Climate Change and Disaster	September 5, 2019
8	International NGO	September 5, 2019
9	Government of Tuvalu	September 6, 2019
10	International organization	September 6, 2019
11	Department of Climate Change and Disaster	September 9, 2019
12	Department of Climate Change and Disaster	September 9, 2019
13	Government of Tuvalu	August 4, 2017
	Antigua and Barbuda (Chapter 4)	
1	Ministry of Finance	April 1, 2019
2	Department of Environment	April 1, 2019
3	Fisheries Division	April 2, 2019
4	Ministry of Finance	April 2, 2019
5	National Office of Disaster Service	April 2, 2019
6	Department of Environment	April 3, 2019
7	Fisheries Division	April 3, 2019

(*continued*)

(*continued*)

Interview reference	Organization	Date of interview
	Antigua and Barbuda (Chapter 4)	
8	Department of Environment	April 4, 2019
9	Environmental NGO	April 5, 2019
10	Meteorological Services	April 9, 2019
11	Department of Marine Services and Merchant Shipping	April 9, 2019
12	International organization	April 12, 2019
	The Bahamas (Chapter 5)	
1	Ministry of Agriculture and Marine Resources	November 11, 2020
2	Ministry for Tourism	November 11, 2020
3	Sustainable Development Goals Unit, Office of the Prime Minister	November 12, 2020
4	The Nature Conservancy	November 12, 2020
5	Department of Environmental Planning and Protection	November 17, 2020
6	Department of Marine Resources	November 18, 2020
7	The Nature Conservancy	November 18, 2020
8	Climate Change Unit, Ministry of the Environment and Housing	January 14, 2021
9	Forestry Unit, Ministry of the Environment and Housing	January 14, 2021
10	Bahamas National Trust	January 22, 2021
11	Red Cross	January 29, 2021
	Ethiopia (Chapter 6)	
1	Environment, Forest and Climate Change Commission	May 11, 2021
2	Environment, Forest and Climate Change Commission	May 12, 2021
3	Environment, Forest and Climate Change Commission	May 14, 2021
4	Addis Ababa University	May 14, 2021
5	Ministry of Transport	May 19, 2021
6	Domestic NGO	May 26, 2021
7	Ministry of Agriculture	June 16, 2021
8	Ministry of Water, Irrigation and Energy	June 16, 2021
9	International NGO	July 14, 2021

(*continued*)

Interview reference	Organization	Date of interview
	Bangladesh (Chapter 7)	
1	NGO	January 26, 2023
2	NGO	February 2, 2023
3	Former government of Bangladesh official	February 6, 2023
4	Ministry of Environment, Forest, and Climate Change	March 26, 2023
	Peru (Chapter 8)	
1	Consultant to negotiating group under the UNFCCC	January 5, 2021
2	Environmental NGO (international)/former government representative	January 21, 2021
3	Ministry of the Environment	January 29, 2021
4	Ministry of the Environment	February 8, 2021
5	Legal environmental NGO (national)	June 22, 2021
6	Civil society organization (national)	May 14, 2021
7	Advisor to congressperson	May 14, 2021
8	Consultant to negotiating group under the UNFCCC	May 26, 2021
9	Environmental NGO (national)	May 26, 2021
10	Legal environmental NGO	June 22, 2021
11	National Centre for Disaster Risk Assessment, Prevention and Reduction	July 7, 2021
12	Congressperson	August 18, 2021
	Chile (Chapter 9)	
1	ONEMI, Ministry of the Interior and Public Security	June 22, 2021
2	Environmental NGO	July 1, 2021
3	University	July 6, 2021
4	Climate Change Research Centre	July 8, 2021
5	Environmental NGO	July 20, 2021
6	Environmental NGO	July 20, 2021
7	Ministry of the Environment	August 14, 2021
8	ONEMI, Ministry of the Interior and Public Security	August 16, 2021
9	Environmental NGO/former Ministry of the Environment	August 17, 2021
10	Ministry of the Environment	August 20, 2021
11	Environmental NGO	October 1, 2021
12	Youth	October 5, 2021
13	Ministry of the Environment	March 3, 2022
14	Private sector	March 9, 2022

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