

THE POST-POLITICS OF ADAPTATION TO CLIMATE CHANGE

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List of abbreviations

AAP	Africa Adaptation Program
AF	Adaptation Fund
AfDB	African Development Bank
CADR	Rural Development Support Center
CAPT	Center for Agriculture Products Transformation
CATAP	Center for Agro-Cattle Technical Improvement
CBA	Community-based Adaptation
CBDR	Common But Differentiated Responsibilities
CBO	Community-based Organization
CIAT	Center for Agronomic and Technological Research
CMPLCL	Caué, Mé-Zóchi, Príncipe, Lembá, Cantagalo, and Lobata
CO	Country Office
COP	Conference of the Parties
DC	District of Columbia
EBRD	European Bank for Reconstruction and Development
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization
FAR	First Assessment Report
FCO	Foreign and Commonwealth Office
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
HIV	Human Immunodeficiency Virus
HR	Human Resources
IAD	Institutional Analysis and Development
IADB	Inter-American Development Bank
ICCO	International Cocoa Organization
ICT	Information and Computer Technology
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contributions
INE	National Institute of Statistics
INM	National Institute of Meteorology
IO	International Organization
IPPC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
KWIC	Key-Word-In-Text
LDC	Least Developed Country
LDCF	Least Developed Countries Fund

LGBT	Lesbian, Gay, Bisexual, and Transgender
M&E	Monitoring and Evaluation
MCA	Multi-Criteria Analysis
NAPA	National Adaptation Program of Action
NGO	Nongovernmental Organization
NIE	New Institutional Economics
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organization for Economic Co-operation and Development
PAE	Structural Adjustment Program
PIF	Project Identification Form
PIS	Participant Information Sheet
PNUD	United Nations Development Program
PPG	Project Preparation Grant
PV	Photovoltaic
RPA	Rapid Participatory Appraisal
RSCA	Regional Service Center for Africa (Regional Office)
RTA	Regional Technical Advisor
RTP	Radio and Television of Portugal
SCF	Strategic Climate Fund
SIDS	Small Island Developing State
STD	São Tomé Dobra
STP	São Tomé and Príncipe
STS	Science and Technology Studies
TVS	TV São Tomé
UK	United Kingdom
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
US	United States
USD	United States Dollar
VCA	Vulnerability Capacity Assessment
WBG	World Bank Group
WWF	World Wide Fund for Nature

Abstract

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In recent years, adaptation to climate change has become a prominent policy imperative for the global climate community. Developing countries, in particular, are seen as requiring assistance in preparing their societies to the future impacts of climate change. This has resulted in a range of multilateral climate funds, which have led to a proliferation of projects focused on adaptation in the Global South. These interventions, however, are often guided by explicitly biophysical or socio-economic understandings of vulnerability to climate impacts. Consequently, they adopt institutional approaches to problem-solving that promote local associations, market integration, and technological solutions without considering the highly political nature of the adaptive process. This study aims to contribute to the critical strand of the literature rooted in explicitly political conceptions of vulnerability and adaptation, and has as its goal to investigate empirically the effects of the institutional approach on the governance of adaptation at the local level.

In order to do so, this research adopts a novel theoretical framework of post-politics, which has not yet been used to study local adaptation contexts. Applying post-politics in this case allows to combine discursive and material approaches, the importance of which is stressed by critical adaptation scholars. The adopted theoretical framework describes the post-political condition of adaptation governance as constituted by three distinct but strictly interrelated processes: perpetuation of dramatized representations of climate change and vulnerable people, deployment of techno-managerial solutions to adaptation issues, and the manufacturing of an ‘adaptive consensus’ required to legitimize these solutions.

Methodologically, this research is a multi-sited, institutional quasi-ethnography, and its case study is an adaptation project implemented jointly by the United Nations Development Program (UNDP) and the national government in São Tomé and Príncipe. This research, conducted in both institutional and rural contexts (two UNDP offices and the local community of Liberdade), analyzes the post-political condition of adaptation governance in São Tomé and Príncipe by uncovering the discursive violence taking place with regards to the country’s local people, the project’s adoption of a resilience heuristic which mobilizes techno-managerial solutions, and the disempowering, consensual participation process that ignores the various inequalities that exist in the local community. As such, it is argued that adaptation to climate change in the form promoted by UNDP and the government not only fails to respond to local needs, but also risks exacerbating the existing social, economic, spatial, and political inequalities at the local level. Adaptation of this kind, rather than decreasing vulnerability, becomes a driver of further stratification. Thus, this study contributes to a more nuanced understanding of how adaptation unfolds locally in the Global South, and provides insights into how the process could be rendered more co-productive and equitable in the future.

Declaration

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To the people of Liberdade
Para o povo de Liberdade
Mieszkańcom Liberdade

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1. Introduction: Adapting to climate change

Since the early 1990s, adaptation to climate change has gradually entrenched itself in the agenda of the international climate community. There is, the majority view has it, a pressing need to adapt to the various impacts of a changing climate across the planet, such as the increased frequency and incidence of droughts and floods, and progressing sea-level rise, to name the most commonly-cited examples. We must adapt, this view goes, or we risk paying a very high price for inaction. However, to critical scholars, and most prominently political ecologists, adaptation is nothing new, as the concept was abandoned by the discipline some 30 years ago due to its conceptual roots in the orthodox fields of natural hazards and cultural ecology (Bassett and Fogelman, 2013; Head, 2010; Peet et al., 2011; Taylor, 2014). Adaptation, it seems, has made a truly impressive comeback. Indeed, it has become humanity's "common-sense default assumption" when dealing with climate change (Taylor, 2014, p. 14), with a rapidly growing attention paid to it by academics and policy-makers alike. This increasing popularity can be easily gauged through an examination of the contents of the Intergovernmental Panel on Climate Change (IPCC) assessment reports. While the First Assessment Report (FAR) of 1991 did not mention adaptation, at all, AR4 of 2007 already contained a systematic review of social – and not just natural – determinants of vulnerability (the extent to which people can be affected by climate change) and adaptation itself (Bassett and Fogelman, 2013). The historical hegemony of mitigation in climate governance has now been successfully challenged, at least partially, by a discourse which presents adaptation as an urgent goal of climate policy across different scales of governance.

1.1. Adaptation and development in the Global South

While adaptation to climate change is certainly a valid policy goal for developed and developing countries alike, the concept is arguably of particular salience in the Global South, which is often described as lacking the 'adaptive capacity' to respond to the mounting challenges that climate change is believed to pose in the short and medium term (Ahmed et al., 2009; Huq et al., 2006; Mertz et al., 2009). In fact, the IPCC has noted that there is no evidence that successful adaptation mechanisms will emerge autonomously (Adger et al., 2003), suggesting that proactive policies and institutions should be created with external assistance to decrease the vulnerability of the affected populations. This rhetoric sounds certainly familiar to anyone with a background in

development studies, a discipline imbued with a similar mission of lifting developing societies out of poverty.

The relationship between adaptation and development has been the subject of a number of theoretical debates. While it is beyond the scope of this research to contribute to them in a comprehensive manner, it is important to point out that the jury is still out on the linkages between the two concepts, with scholars either equating them, recognizing their interdependence, or considering their aims as essentially irreconcilable (Adger et al., 2003; Ayers and Dodman, 2010, 2010, Brown, 2016, 2011; Mertz et al., 2009; OECD, 2012). However, the focus of this research on developing countries and the institutional environment of UNDP – one of the world’s largest and most prominent development agencies – testifies to the strong practical links between adaptation to climate change and international development.

In fact, adaptation assistance flows nowadays to developing countries and local communities as part or in supplement of development aid from a myriad of mission-based agencies and nongovernmental organizations. In the late 1990s, Brosius et al. (1998) spoke of a large institutional apparatus establishing itself in the context of biodiversity conservation and land stabilization. Today, it can be argued that the same process is underway with regard to adaptation to climate change (Felli, 2013). The process of promoting adaptation through various kinds of policies, projects, and programs in the developing world has been unfolding under the careful stewardship of international financial institutions and development agencies, such as the World Bank with its affiliate Global Environment Facility (GEF), regional development banks, United Nations Development Program (UNDP), United Nations Environment Program (UNEP), and Food and Agriculture Organization (FAO), to mention a few. Their adaptation-related operations have been strictly guided by governance mechanisms launched and further elaborated under the United Nations Framework Convention on Climate Change (UNFCCC), the institutional locus of global adaptation governance.

There is a range of adaptation-centered funds under the UNFCCC framework that have operated since the turn of the new millennium. Among the most important ones are the Adaptation Fund (AF), the Strategic Climate Fund (SCF), and the Least Developed Countries Fund (LDCF) – all established in the wake of COP7 in Marrakesh in 2001. These have been used widely to support the development of the National Adaptation Programs of Action (NAPAs) – documents outlining the major adaptation needs and the resulting policies in developing states – and the associated NAPA interventions. The last of these three funds, LDCF, is of particular interest here as it is

the funding source for the adaptation project in São Tomé and Príncipe investigated in this study (see below). The LDCF is currently available to 49 least developed countries “that are especially vulnerable to the adverse impacts of climate change” (GEF, 2016, 2011). The fund is administered by the GEF, the operating entity for the Convention, with contributions from 26 developed countries, amounting as of October 2016 to over \$1 billion since its inception (Climate Funds Update, n.d.).

These financing streams, however, appear to be only a modest beginning of the global drive to fund adaptation in the Global South. The Green Climate Fund (GCF), negotiated and instituted at COP16 held in Cancún in 2010 to “support the efforts of developing countries to respond to the challenge of climate change” (GCF, n.d.), is bound to change the scale of international adaptation assistance. The new fund is to balance around \$100 billion per year between mitigation and adaptation initiatives (Scoville-Simonds, 2016). This means that starting in 2020 (if donor pledges are kept and deadlines met), adaptation financing under the UNFCCC framework alone will rise well over fiftyfold, from around \$900 million to about \$50 billion per year, a transition that development practitioners privately refer to as an entirely new paradigm of adaptation assistance. The projects of the kind studied here are meant to act as pilots for much larger and far-reaching initiatives in the future. These will be funded by the immense amounts of money that will be made available to development organizations with the goal of scaling up the already existing local adaptation efforts. The sheer magnitude of the projects to be launched as well as their potential to transform local livelihoods calls for a critical scrutiny of the effects of their pilots.

1.2. Understanding adaptation as a (post-)political issue

What is adaptation to climate change? Not entirely surprisingly, because of its recently reclaimed popularity, the term has become quite diluted and there exists no single definition for it. Most academics rely on the IPCC understanding of adaptation as “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities” (IPCC, n.d.). The IPCC thus takes a systemic approach to adaptation, according to which the coupled socio-ecological system’s stability is under threat by ‘climatic stimuli.’ The school of natural hazards that currently pervades adaptation research rests precisely on this understanding of adaptation and vulnerability to climate change (Bassett and Fogelman, 2013; Wisner, 2004). Critical scholars have been quick to challenge this definition. They consider it explicitly apolitical, which they explain by

the IPCC's domination by natural scientists guided by positivism and Cartesian rationalism, which result in simplified understandings of social processes that are extremely complex and, as will be demonstrated later, often deeply inequitable by nature (Bryant, 2016; Macgregor, 2014; Swyngedouw, 2013a; Taylor, 2014). Thus, Pelling refers to adaptation in an alternative manner as “the process through which an actor is able to reflect upon and enact change in those practices and *underlying* institutions that generate *root* and proximate causes of risk, frame capacity to cope and further rounds of adaptation to climate change” (2011, p. 21, emphasis added). This more normative definition seeks to counter the predominant, apolitical view espoused by IPCC and adaptation practitioners. It returns political agency to humans, thus allowing them to understand and act on the *root causes* of their vulnerabilities (Ribot, 2014). These root causes, critical scholars note, are not to be found in droughts, floods, hurricanes, or rising sea-levels. Rather, they are a product of social and economic amplification expressed by, for instance, different levels of income, education, or health (Adger et al., 2009, 2007; Chishakwe et al., 2012; Leal Filho, 2011; Pelling, 2011; Sovacool, 2011).

These socio-economic indicators beyond any doubt determine people's ability to respond to change, including environmental change. However, over the last decade or so, a new strand of critical adaptation studies has emerged, which takes an even more political approach to analyzing the effects of how people respond to the negative impacts of climate change (Eriksen et al., 2015; Nightingale, 2015; O'Brien et al., 2010a; Ribot, 2014; Taylor, 2014). Many scholars within this relatively narrow group believe that adaptation is an explicitly political process. As such, rather than studying various facets of socio-economic inequality, they propose investigating the role of *political* inequality in leading to unequal vulnerabilities and adaptation outcomes. Thus, they assert the explanatory primacy of politics in researching adaptive processes. Such politically-centered studies are slowly emerging, but there is still very little in terms of empirical evidence that could validate this critical theoretical observation. My work aims to help address this gap.

As mentioned above, adaptation efforts in the Global South have traditionally been concentrated in the hands of the global development industry, meaning that adaptation has been operationalized according to a very specific modality. It is this modality, described here as post-politics, along with its localized effects, which is the main topic of this study. Through this work, I aim to contribute to the above-mentioned effort to push the critical strand of adaptation research towards more critical horizons

rooted in explicitly political – rather than socio-economic – understandings of adaptive challenges. Scholars who apply a more political lens in their analyses often conceptualize adaptation as transformation rather than resilience (Dodman and Mitlin, 2013; Gillard et al., 2016; O’Brien et al., 2010a; Pelling, 2011), and use insights from theoretical traditions as diverse as political ecology, human security, critical realism, cultural theory, deliberative democracy, and development ethics and climate justice, among others (O’Brien, 2012). What is proposed here is to apply the framework of post-politics, a relatively recent development in political theory, to critically analyze adaptation to climate change and theorize political transformation. This approach is a novel one, and has not been applied to specific adaptation interventions before (but see: Symons, 2014). However, there are several analytical insights offered by this emerging tradition that make it well-suited for the task of uncovering the political nature of adaptation, or using the framework’s parlance, its ‘post-political condition’ (Celata and Sanna, 2012; Kenis and Mathijs, 2014; Kythreotis, 2012; Swyngedouw, 2010).

First, the focus of post-politicization research on the power of discourse and representations is particularly relevant here. The global adaptation discourse produces a strong sense of fear and urgency regarding climate impacts that helps legitimize external interventions to avert a ‘climate crisis.’ In other words, this particular framing implies a ‘deadline,’ a temporal necessity to act that the discourse of development does not necessarily produce (a characteristic that I consider crucial in setting it apart from traditional development). Second, these interventions can be, as I will seek to demonstrate, explicitly techno-managerial, and conceived and often delivered locally by experts believed to hold the key to a ‘climate-resilient’ future. Third, the post-political analytical framework allows to critically investigate the process of manufacturing a universalizing ‘climate consensus’ through the co-optation of individuals into the power structure that guides their adaptive actions, in this context through the participatory development processes such as community-based adaptation (CBA). These processes are represented as explicitly democratic, empowering, and even emancipatory but, as the experience of development has shown over multiple decades, they frequently fail to deliver and, in many cases, achieve the opposite effect (Cooke and Kothari, 2001; Ferguson, 1994; Hickey and Mohan, 2004; Kapoor, 2008; Ribot, 2000; Williams, 2004). The inclusion of this latter component – the imposition of a consensual mode of governing climate that limits the frame to very specific, conservative solutions – is something that sets this work apart from earlier contributions concerned with the post-politics of adaptation governance (see: Symons, 2014).

Thus, what I argue here is that the theoretical lens of post-politics captures very well how adaptation is being operationalized, or is sought to be operationalized, by international development actors. The Global South, I believe, is a fertile ground for post-politics, due to its long-standing history of being subjected to disempowering representations, its perceived desperate need for technological and technical expertise, and the high level of local inequalities in wealth, education, and political power, all of which make democratic and participatory processes prone to being hijacked by the elites, both local and global (Kapoor, 2008). Valuable insights are provided here by post-colonial theory and critical development studies, from which the post-political framework adopted here draws heavily, particularly through the concepts of discursive violence and the subaltern (Chaturvedi and Doyle, 2015; Escobar, 1995; Jones et al., 1997; Kapoor, 2008; Munck and O’Hearn, 2001; Said, 2003; Spivak, 1988). Relatedly, post-politics also allows combining materialist and discursive approaches to analyzing adaptation, the need for which is frequently highlighted by the literature (Marino and Ribot, 2012; Taylor, 2014).

In addition, what I believe distinguishes the post-political perspective from other critical approaches is that its focus, in addition to the depoliticized, techno-managerial nature of the governance of a given public issue, is on (re-)politicization. It is a critical stance that, while providing rigorous theoretical critique, at the same time seeks to provide avenues for reclaiming the political space by those who have been excluded from it. It emboldens difference and activism by recognizing that every established social order is contingent and its shape needs to be constantly renegotiated (Marchart, 2007). As such, post-political analysis generally allows more agency to individuals than, for instance, orthodox neo-Marxist approaches which situate the inequality inherent in adaptive processes in class-based relations and within the broader workings of the meta-structure of global capitalist relations of production and consumption (Wilson and Swyngedouw, 2014a). Scholars adopting a post-political approach towards studying adaptation have come up with their own definitions of the term. For example, Symons (2014, p. 270), following Swyngedouw, refers to adaptation as “the radical contestation of alternative future socio-environmental possibilities and socio-natural arrangements.” Thus, as a theoretical framework, post-politics provides an attractive, emancipatory lens which provides new insights into (re-)politicizing climate change governance in both theory and practice.

The critical stance this research takes towards concepts such as adaptation, vulnerability, and resilience could be easily mistaken for an attempt to lessen the gravity

of climate impacts in the Global South. But this kind of interpretation could not be further from the truth. It has been demonstrated empirically that, at this point in time, international mitigation efforts are largely inconsequential for the present generation, as global environmental change will continue for at least the next 50 years due to climate inertia (Ayers and Forsyth, 2009; Mertz et al., 2009; Picketts et al., 2014). It would thus be extremely irresponsible to downplay the extent of the impacts the changing climate will have on local people, who in many cases are already living the future that those in the West are so concerned about (Chaturvedi and Doyle, 2015; Swyngedouw, 2013a). Similarly, it may be misguided not to focus global resources on addressing the climate predicament of local people in developing countries which are, by most metrics, more vulnerable to climate change than states in the Global North (Stillings, 2014).

1.3. Case study and methods

One of the biggest shortcomings of analytical frameworks focused on post-politics is that, while well-theorized, they have resulted in scarce empirical research, at least in the context of climate governance (Berglez and Olausson, 2014; Symons, 2014). Research on how adaptation unfolds at the local or community levels is particularly lacking, yet it is at this scale that climate change impacts will be felt most immediately and acutely. Therefore, a key contribution of this research is the delivery of a strong empirical component through an adoption of the ethnographic approach to studying adaptation governance.

The study critically analyzes the discursive and material processes surrounding the design and early implementation of an adaptation project funded through the LDCF in São Tomé and Príncipe, a small island nation of under 200,000 people in the Gulf of Guinea. São Tomé and Príncipe is classified by the UN as a least developed country (LDC), and combined with its status as a small island developing state (SIDS), is considered particularly vulnerable to the impacts of climate change (NAPA, 2006). The most serious among those are increasing temperatures, declining precipitation, and the rising sea level (INDC, 2015; NAPA, 2006; Second Communication, 2012; UNDP, 2014). These effects of climate change are bound to amplify the existing problems in the country, including the high incidence of poverty, low levels of education, poor health care, and its chronic condition of underdevelopment (First Communication, 2004; Seibert, 2006; UNDP, 2014). In recognition of these impacts, the government has partnered with UNDP, one of the most established international development agencies in the country, to design and implement an adaptation project with the goal of

“enhancing capacities of rural communities to pursue climate resilient livelihood options” in 30 local communities from all but one district of the country (UNDP, 2014, p. 1). While this may not seem like a large number, it is claimed through project documentation that the benefits will reach a total of 2,000 rural households, covering a substantial proportion of the Santomean rural population of around 63,000 (UNDP, 2014).

The project seeks to increase local livelihoods’ resilience through its three components. First, it will aim to increase the institutional capacity of the key national partners, mainly the three agencies of the Ministry of Agriculture and Rural Development (MoARD), the role of which the project considers necessary for promoting resilience at the community level. Second, it plans to build climate-proof infrastructure, such as dykes and terraces, and introduce community-based safety nets such as farmer cooperatives or cereal banks. Third, it is to deploy “long-term agro-sylvo-pastoral adaptation technologies, tools and mechanisms” in the participating villages, which will be included in the locally-developed climate adaptation plans (UNDP, 2014, p. 48). This integrated approach to adaptation, project documentation suggests, will help the rural residents of São Tomé and Príncipe increase their agricultural productivity and diversify their livelihoods, with the ultimate goal of increasing household income. The project is set to run from 2014 to 2017 (although it had a delay of approximately one year at the time of writing), through a joint implementation by UNDP and MoARD, and with a total budget of \$4 million USD.

Rather than following the general progress of the project in the country, this research takes an ethnographic approach. This is justified by the fact that vulnerability is very context-specific, thus requiring attention to the local complexities surrounding adaptive challenges (Adger et al., 2004; Mertz et al., 2009; UNDESA, 2005), the relative absence of ethnographically-inspired adaptation accounts, and the emancipatory potential of ethnography as a research method (Winkelman and Halifax, 2007). This study thus examines the encounter between adaptation (as embodied by the project in question) and Liberdade¹ – one of the 30 local communities selected to benefit from the initiative. Located in the northern district of Lobata, which is considered the most vulnerable to climate impacts in the country (UNDP, 2014), Liberdade is home to around 160 families, the vast majority of which base their livelihoods on rain-fed subsistence agriculture. For the purposes of this research, I conducted regular visits to the community – at least three times a week for several hours – in order to allow enough

¹ The name of the village has been changed to preserve the anonymity of its residents.

time to gain a nuanced understanding about the local context and the challenges the residents need to contend with on a daily basis. This has helped me capture a depth of information that is rarely achieved by development and adaptation projects, which operate under very strenuous timelines and budgets.

It was perhaps because of the potential of my research to deliver such in-depth information that UNDP, which is the *de facto* leading agency on the project, invited me to undertake an internship focused on adaptation to climate change for the duration of my fieldwork. This allowed me to first travel to Ethiopia and conduct research at the Regional Service Center for Africa (RSCA, or the Regional Office) in Addis Ababa, which is responsible for UNDP's adaptation portfolio on the entire continent. After four months there, I flew to São Tomé and Príncipe for another three months to continue my internship at the UNDP Country Office and concomitantly conduct visits in Liberdade.

Due to the methodological approach taken and the possibility of conducting fieldwork in three different contexts (two UNDP offices and the community of Liberdade), the research design I have adopted can be called a multi-sited, institutional quasi-ethnography. As such, this study recognizes and addresses the need for the cross-scalar analysis of networks that influence local adaptation governance by considering regional, national, and community levels (Adger et al., 2005). Through the approach taken here, I sought to capture the linkages between different power and knowledge centers in planning and carrying out adaptation, and – even more importantly – understand the localized effects of this governance configuration in the rural community of Liberdade. As such, this unique way of studying the problem combines insights from anthropology, geography, and science and technology studies (STS) to provide a broad picture of how adaptation is governed both from and in different spatio-temporal contexts.

1.4. Structure of the thesis

The thesis is structured into eight chapters, including this introduction. Chapter 2 situates the post-political framework within the broader literature on climate change adaptation, and further unpacks its explanatory potential for studying local adaptation processes. First, it provides a short overview of the dominant approaches that have largely determined the shape and scope of today's adaptation interventions in the Global South: the natural hazards and the social vulnerability schools, with a particular attention given to the kinds of interventions that they have facilitated in local contexts. Here, I discuss the interrelated institutional approaches rooted in social capital, New

Institutional Economics (NIE), and resilience-thinking. The latter part of Chapter 2 focuses on elaborating the post-political analytical framework adopted by this study by concentrating on the processes that constitute the post-political condition of adaptation governance in the Global South. The chapter concludes by presenting the research goal and questions.

Chapter 3 provides a detailed overview of the methodology adopted by this study. It describes at greater length the research design and justifies the related methodological choices. Next, it discusses the research process itself, including the way in which the ethnographic methods (participant observation, interviews, document analysis, and participatory mapping) were used at each of the two stages of fieldwork (in Ethiopia and São Tomé and Príncipe). The chapter concludes with a reflexivity section that critically discusses my positionality within the research context and its consequences for how this study proceeded before, during, and after fieldwork.

In Chapter 4, the first empirical section of the thesis, I lay the groundwork for subsequent analysis. Here, I discuss the political economic history as well as the climate vulnerability of São Tomé and Príncipe, and deliver an ethnographic account of the community of Liberdade, including its built and natural environments, its cultural, political, and economic background, as well as its vulnerability to climate change impacts. This information situates the national and local spaces of adaptation within the broader context of underdevelopment and development assistance, and allows to better understand the encounter between the project and the residents of the village. This context is also crucial if one seeks to analyze or anticipate the potentially negative effects the specific, post-political condition of adaptation governance will have on the country's local people. It is these effects – and how to avert them in the future – that this study is particularly concerned with.

Chapter 5 and 6 focus, respectively, on the discursive and material processes that have rendered the governance of adaptation in São Tomé and Príncipe an explicitly post-political enterprise. First, Chapter 5 theoretically mobilizes the discursive analytical lens of representations and discourse. This allows me to analyze how the process of adaptation as well as the people who are expected to participate in it have been portrayed by the country's development community, including the staff working for the UNDP adaptation project. Chapter 6 then switches the discussion to the material manifestations of post-politics present in the project design. It provides an overview of the project's institutional genesis and setup, and critically analyzes the solutions selected to increase local livelihoods' resilience to climate change.

The last of the four empirical chapters interrogates the effects of the discursive and material manifestations of post-politics for the rural residents of Liberdade. First, this involves an analysis of the community consultation process – an integral part of the UNDP adaptation project and an expression of the organization’s commitment to stakeholder inclusion in the planning and implementation of its development initiatives. Here, the various aspects of inequality present in the village but largely invisible to outside managers are discussed in greater detail. Second, I discuss the social and political consequences that the techno-managerial solutions and the homogenizing stance towards social life that the project adopts are likely to have for local residents.

In the last chapter, I reiterate the main theoretical, methodological, and empirical contributions of this study to post-political literature and adaptation scholarship, in general. In addition, I also seek to provide insight into how adaptation to climate change can be re-politicized and how it could avoid reproducing the numerous mistakes made by international development interventions of the previous years. While it is difficult to provide final recommendations, not least because of this study’s skeptical stance towards experts delivering answers to those considered ‘in need,’ certain avenues for making adaptation and vulnerability reduction activities more co-productive and equitable can nonetheless be identified.

2. Adaptation to climate change as a political process²

Over the last two decades, adaptation has produced a literature that is heterogeneous “both in terms of underlying assumptions and practical implications” (Weisser et al., 2014, p. 112). The goal of this chapter is not to provide an overview of this rapidly expanding body of work, but rather to outline and justify the use of the post-political analytical framework adopted here and situate it within the field. As I will seek to demonstrate, adaptation research has relied on different ontological stances on vulnerability. It has expanded from its once hegemonic apolitical conceptualizations based on insights from the natural hazards school towards more critical ones, rooted in socio-economic explanations for why people are vulnerable to environmental change. That said, what I wish to argue here is that the great majority of these newer, and by now largely orthodox, analytical approaches still do not go far enough in considering the strictly political nature of adaptation (Dodman and Mitlin, 2013; Eriksen et al., 2015; Harris and Symons, 2010; Nightingale, 2015; Ribot, 2010; Symons, 2014). In some cases, their uncritical mobilization of socio-economic indicators such as income, education, or health levels – while a marked improvement from an analytically-limiting disaster-centered focus – similarly fails to capture the root causes of vulnerability. Not only that, theoretical and practical efforts recusing themselves from incorporating sensitive questions of power and politics inherent to adaptation as a process of change risk exacerbating the existing vulnerability differentials even further. It is thus the goal of this study to push the theoretical limits of how adaptation is approached by social scientists concerned with climate change through the conceptual deployment of post-politics, which provides, I argue, a much-needed political and emancipatory framework for analyzing adaptation in theoretical and practical terms alike.

2.1. Different understandings of vulnerability in research and practice

The following section will demonstrate how this study situates itself within the evolution of adaptation research and practice, which I will illustrate by using the concept of vulnerability as a point of reference. A somewhat misused term, vulnerability could be defined as the degree to which human populations and their environments can be affected by external processes caused by climate change (Adger et al., 2007). It comes as no surprise, then, that adaptation and vulnerability are two strictly interrelated concepts, and it can be argued that, broadly speaking, the objective of adaptation is to

² Certain passages in this chapter have been adapted from an academic journal article and a book chapter that I have recently published (Mikulewicz, 2017, in press).

reduce vulnerability to climate change impacts. Key for the discussion here is that vulnerability is often discussed as a function of *exposure* (the rate and degree of climate impacts), *sensitivity* (the degree to which a system can be affected by them), and *adaptive capacity* (the system's ability to adapt to these impacts) (Adger et al., 2003; Chishakwe et al., 2012; Williamson et al., 2012). Analyzing vulnerability as a conjuncture of these three variables allows to bring out the differences between the biophysical (or hazards-centered) and social vulnerability approaches to adaptation.

2.1.1. From the natural hazards approach to social vulnerability

Using the function of vulnerability outlined above, it can be argued that the hazards school places emphasis on the *exposure* of a local community to such natural processes as droughts, floods, hurricanes, sea-level rise, and other climate hazards. This approach relies on the ontological separation of the social and natural worlds, which it considers independent of each other (Schlosberg, 2012; Taylor, 2014; Weisser et al., 2014). It is the interaction between these two discrete realms, and more specifically the forces of the latter acting on the former, that can result in negative outcomes for local people (Bassett and Fogelman, 2013; Shuhrke, 2013). In other words, the vulnerability of a given community is expressed by the degree to which its geographic location and the related anticipated impacts of climate change can affect the pre-disaster equilibrium. The hazards school places attention on the amount of damage rather than the factors that underpin the extent of that damage (Adger et al., 2004). Analyzing vulnerability from this perspective translates into an understanding of disasters as adverse weather events triggered by climate change, the impacts of which humans must react to in order to survive (Head, 2010).

The remedial actions prescribed by approaches that conceptualize risks in terms of natural hazards have in consequence been focused on limiting the exposure of vulnerable populations to adverse weather events. Bassett and Fogelman (2013) refer here to “purposeful adjustments” undertaken by society to increase its absorptive capacity (or the capacity to absorb external shocks). The said populations' socio-economic makeup or capacity to respond to the risk are not considered significant factors in decreasing their own vulnerability. Examples include the introduction of new seed varieties as an adaptive measure against droughts, constructing walls to protect coastal communities from sea-level rise, or building levies and resettling people in anticipation of more frequent and intense flood events.

Since the IPCC Fourth Assessment Report (AR4) of 2007, adaptation research and practice have accorded increasing attention to more social conceptualizations of vulnerability, which foreground the social and economic determinants of climatic stress (Adger et al., 2004). This has come from the realization that climate-related risks are a product of “social amplification more than the nature of the hazard itself” (Pelling, 2011, p. 16). In addition to addressing exposure to droughts, floods, or sea-level rise, a more critical political economy approach has emerged that points to the socio-economic circumstances of vulnerable groups and individuals as factors conducive to successful climate change adaptation. Rather than exposure to climate hazards, efforts to reduce social vulnerability stress the importance of decreasing the *sensitivity* and increasing the *adaptive capacity* of local communities, the other two variables in the vulnerability function (Adger et al., 2004; Park et al., 2012).

Due to the great diversity of adaptation contexts, authors cite a plethora of different characteristics, stressing the role of infrastructural, institutional, community, social, political, demographic, economic, educational, health, technological, and cognitive factors in influencing the capacity of communities to adapt to adverse climate effects (see: Adger et al., 2007; Bowen et al., 2012; Chishakwe et al., 2012; Esham and Garforth, 2013; Lata and Nunn, 2012; Leal Filho, 2011; McNamara, 2013; Pelling, 2011; Picketts et al., 2012; Pulhin et al., 2010; Rawlani and Sovacool, 2011; Sovacool et al., 2012a; Wolf et al., 2010). What all these recommendations have in common is the recognition that, first, vulnerability in society exists independently from biophysical forces – or people’s sheer exposure to them – and, second, that limits to adaptation are in fact cultural, social, and (less commonly) political by nature (Adger et al., 2004; Pelling, 2011).

Arguably, one of the most significant contributions of social vulnerability research is the recognition that due to local socio-economic stratification, adaptation to climate change, at least in the form promoted by the key agents of development, has the potential to leave some people behind. Critical scholars studying what has come to be known as climate justice have cautioned that individual and collective actions taken locally in response to climate change are likely to produce ‘winners and losers’ of adaptation (Adger, 2003, 2001, Adger et al., 2006, 2004; Thomas and Twyman, 2005). In other words, local distributions of power and assets are likely to be rearranged not only by droughts, floods, and sea-level rise, but also more indirectly by the *way* in which people respond or are expected to respond to these occurrences. As a result, this kind of inequitable adaptation could potentially exacerbate socio-economic inequalities

at the national, sub-national, and community levels, constituting a serious obstacle to broadly understood inclusive development, itself. That adaptation policy and practice may benefit the privileged while leaving the marginalized behind due the diversity of people's socio-economic circumstances has become one of the main concerns of critical adaptation scholarship (Adger, 2003; Adger et al., 2005, 2004, 2003; Neumann, 2005; Ribot, 2009; Shrestha, 2013; Taylor, 2014; Thomas and Twyman, 2005).

2.1.2. Institutional approaches to social vulnerability

Social capital

One of the main strands of the social vulnerability literature is the institutional approach, which centers on the need to create various kinds of institutions that foster collective action and, by doing so, increase local people's adaptive capacity. One particularly significant branch of the institutional school centers on the notion of social capital, the relevance of which for adaptive capacity has been stressed by a number of scholars (Adger, 2003; Adger et al., 2007, 2003; Cundill and Fabricius, 2010; Gentle and Maraseni, 2012; Jones et al., 2012; Menzel and Buchecker, 2013; Park et al., 2012; Pelling and High, 2005; UNDESA, 2005; Wagner and Fernandez-Gimenez, 2009). In general, social capital is mobilized here by virtue of its suggested potential to explain the behavioral elements of adaptive choices (Ebi and Semenza, 2008; López-Gunn, 2012; Pelling and High, 2005). Specifically, the focus has been on the role of networks, relationships, roles, and rules (or structural social capital) and the aggregate of values, beliefs, norms, and attitudes (or cognitive social capital) that accompany them (Adhikari and Goldey, 2010; Ebi and Semenza, 2008; Uphoff, 2000). Working in concert,³ these two kinds of social capital are said to facilitate the flow of information, foster sustainable, better-informed, responsible decision-making, encourage environmental behavior, enhance awareness, trigger innovation, and increase participation, all of which are seen as more or less indispensable factors leading to mutually-beneficial collective action (Adger, 2003; Jones et al., 2012; Serrao-Neumann et al., 2013; Wagner and Fernandez-Gimenez, 2009).

Following these encouraging premises, a number of empirical studies have been conducted, both quantitative and qualitative, to test the idea that social capital has a beneficial effect on collective action and adaptation efforts. One of the landmark studies on collective action in natural resource management in Sri Lanka, described at length by Uphoff (2000), involved the creation of farmer organizations concerned with improving

³ The degree to which each of the two components of social capital facilitates adaptation has been contested (see: Adhikari and Goldey, 2010; Yip et al., 2007).

the management of the local irrigation system. The project turned out to be a tremendous success in creating structural and cognitive capital, which led to continuous cooperation in local water use, resulting in an unanticipated spike in efficiency. Similar cooperative behavior has been observed in Samoa, the Cayman Islands, Alaska, Cuba, India, and Canada, among others (Adger et al., 2007; Bisung et al., 2014). Quantitative studies have also produced evidence suggesting that social capital may be a significant predictor of adaptation measures (Esham and Garforth, 2013; Rudd, 2000). Conversely, its deficit or absence have been identified as one of the main barriers to collective action in natural resource management in many localities (Bisung et al., 2014; Pretty and Ward, 2001).

New Institutional Economics

While sociologists have been concerned with the importance of collective action and social capital for adaptation, certain economists have proposed the closely related tradition of New Institutional Economics (NIE) as their discipline's response to the challenges of adaptation, following its establishment in development economics and development practice in the Global South (Cameron, 2000; Kamat, 2014; Neeliah, 2009; Oberlack and Neumärker, 2011). In the words of Ménard and Shirley (2008, p. 1), NIE:

abandons the standard neoclassical assumptions that individuals have perfect information and unbounded rationality and that transactions are costless and instantaneous. (...) To reduce risk and transaction costs humans create institutions, writing and enforcing constitutions, laws, contracts and regulations—so-called formal institutions—and structuring and inculcating norms of conduct, beliefs and habits of thought and behavior—or informal institutions.

Thus, in recognition of the fact that individuals do not have perfect information about their choices, NIE proponents agree with the transaction cost economics theory in that both formal and informal institutions decrease the costs of exchange within the market. As such, they circumvent the well-trodden critique that humans are not perfectly informed and rational agents. On the contrary, NIE appreciates the importance of various institutional arrangements, including culture and morality, in affecting people's behavior, which is itself recognized as more complex and unpredictable than that of the *homo economicus* envisioned by neoclassical economics (Agboola, 2015; Ostrom, 2008). Economic institutionalists note that individuals operate under bounded rationality and are often driven by opportunistic tendencies resulting in “incomplete contracting and contractual hazards,” a situation that has led to the emergence of the

firm (or in the context of adaptation – local governance institutions) to rectify this inefficiency and devise new governance structures (see: Agboola, 2015; Coase, 1960).

NIE scholars also question the focus on adaptation's efficiency understood as "a set of adaptations that maximize the net benefits of adapting" (Mendelsohn, 2006, p. 204). Examples of the traditional measures to increase the efficiency of adaptation would be based on enhancing the flexibility of systems to function under conditions of climatic shock, improving knowledge about these shocks (through, for example, early-warning systems), and fostering overall development through health and education (Oberlack and Neumärker, 2011). NIE proponents suggest, much in line with the sociological arguments stressing the importance of collective action, that this top-down welfare economics framing of adaptation grounded in social benefit maximization should be substituted with a "paradigm of mutual advantages from cooperation of interdependent actors" (Oberlack and Neumärker, 2011, p. 16). Under this framework, attention needs to be placed more firmly on methodological individualism (which sees individuals at the core of any form of social organization) and consequently on each of the involved actor's preferences as to "the organizational-institutional structures under which they live" (Agboola, 2015; Oberlack and Neumärker, 2011, p. 15). Thus, in the context of adaptation, and at least in theory, NIE introduces an emancipatory component to the rigid neoclassical understanding of adaptation barriers and drivers. Crucially, the need to understand the preferences of individuals justifies the focus of most development and adaptation projects on broadly understood participation, and the consultation mechanisms under the UNFCCC process are cited as an example of how information on these preferences could be obtained (Oberlack and Neumärker, 2011).

Community-based adaptation (CBA)

In terms of the practical manifestations of the institutional approaches outlined above, the most widely cited tool for facilitating local responses to climate risks in this context is community-based adaptation (CBA). CBA has become a go-to choice for an increasing number of development agencies concerned with increasing local adaptive capacities (Ayers and Forsyth, 2009; Dodman and Mitlin, 2013; Faulkner et al., 2015; McNamara, 2013; Parashar et al., 2011; Simane and Zaitchik, 2014). It has been described as a response to the mixed success record of the top-down approach delineated above, which failed to integrate adaptation and development in ways that address the social complexity and diversity of adaptation contexts (Chishakwe et al., 2012; Faulkner et al., 2015). CBA utilizes participatory methods to benefit from unique

local knowledge and strategies in designing adaptation measures; it is supposed to be not just community-based but also community-driven (Chishakwe et al., 2012; Pelling, 2011). As a result, the communities affected by climate change are thought to become empowered and act as decision-makers, implementers, and monitors of their own adaptation (Allen, 2006; McNamara, 2013; OECD, 2012; Picketts et al., 2012; Sovacool, 2011). Precisely because of its commitment to include local people in the decision-making and implementation processes, CBA rests on the cohesion of local communities and stresses the importance of the livelihoods of the people that compose them (Sovacool et al., 2012b). This is why CBA-based interventions are often dependent on their ability to create efficient and inclusive local-level institutions (Andersson and Gabrielsson, 2012; Rudd, 2000; Shatkin, 2007). Proponents of CBA claim the approach has a higher legitimacy potential by considering the values, feelings, traditions, and emotions that top-down adaptation interventions fail to include in local-level decision-making (Pelling, 2011).

Since the political, social, cultural, institutional, and environmental contexts vary, there is no one-fits-all solution – an observation made by many adaptation scholars and, indeed, CBA proponents (Adger et al., 2007; Gentle and Maraseni, 2012; Mertz et al., 2009). Yet, in an increasing number of cases, prescriptions revolve around creating cooperative, market-oriented groups at the community level that have the end goal of maximizing the utility of those who participate. Interestingly, as Cameron (2000) astutely notes, somewhere along the evolution of neoclassical economics, utility maximization has come to be equated with profit maximization. Thus, the adaptation assistance many local communities receive through a variety of projects and programs nowadays has the specific aim of increasing incomes or profits. Development agents inspired by institutionalism seek to promote community-based forestry, village education committees, producer associations, village health committees, self-help groups, micro-enterprises and micro-credit groups, among others, to lift local communities out of poverty thus increasing their adaptive capacity (Bernard and Spielman, 2009; Kamat, 2014).

Importantly, these instruments aim to incorporate local people into the market, a core principle for today's development strategies at large (Taylor, 2014). Kamat (2014) cites the example of the self-help movement in the Indian state of Andhra Pradesh, where development agents (most prominently NGOs) institute self-help groups in local communities, with a particular focus on the participation of women. The goal of these groups is to generate capital by members pooling together their savings or obtaining

small loans from NGOs, government bodies, or banks. In fact, micro-credit programs of this kind, which are thought to empower local people by putting their fate into their own hands, are currently the fastest growing segment of international aid globally (Kamat, 2014). In a similar vein, Bernard and Spielman (2009) invoke the example of rural producer associations which have been heavily promoted by the government of Ethiopia since 1994 as a means to modernize and commercialize smallholder agriculture. Importantly, these groups are to have open membership policies, provide beneficial services to most rural households, and maintain organizational structures that encourage participatory decision-making (Bernard and Spielman, 2009). In short, these local institutions in India and Ethiopia are to foster collective action and generate profits, which local people will then use to meet their basic needs, and eventually escape poverty and climate risk.⁴

2.2. Adaptation as resilience

An increasingly widespread approach which combines the insights from both the hazards and the social vulnerability schools is conceptualizing adaptation in terms of *resilience*. Indeed, scholars have proposed that resilience is becoming the dominant frame for how adaptation is understood by development organizations (Brown, 2016). This is particularly significant from the standpoint of this discussion, as the adaptation project under study here has as its explicit goal to increase the resilience of rural Santomeans' livelihoods to climate change impacts.

Resilience has its roots in ecology and environmental sciences. The term was first introduced by Holling (1973) in his seminal article that challenged the orthodox ecological theory of single equilibrium. His proposition that ecosystems can possess multiple stable states has had far-reaching implications for ecosystem sciences, generating academic interest in how the transition between different stability domains occurs (a process which was later described as an adaptive cycle). Holling (1973, p. 14) described resilience as “a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables” or, in other words, its capacity to remain in its current equilibrium given external stimuli. Before long, the term was picked up by social scientists. After its initial use for analyzing individual well-being in human development studies, the concept of resilience has been developed further into what Brown (2016)

⁴ It should be noted that the conceptual relationship between vulnerability and poverty is not straightforward, as the poorest may not always be the most vulnerable to climate impacts, and *vice versa* (see: Adger et al., 2004; Sarewitz et al., 2003)

calls “social ecological systems science,” which has become of particular relevance for discussions on international adaptation efforts in face of progressing climate change.

Drawing from the ontological stance of the already mentioned natural hazards tradition, scholars applying resilience thinking in studying social phenomena distinguish between two separate yet intrinsically connected and co-dependent systems: social and ecological. In the context of adaptation to climate change, nature (or ‘the ecological’) is depicted in a two-fold manner. First, the changing climate – as an expression of nature – acts as a negative stimulus on humans and their livelihoods (‘the social’). Second, ecosystems (again, ‘the ecological’) are seen as crucial for the adaptive capacity of human populations (again, ‘the social’), particularly in developing countries such as São Tomé and Príncipe. At the same time, however, these ecosystems are now diagnosed as fragile or failing either due to the intensifying nature of climate impacts or other human-related activities, which are deemed unsustainable. Thus, nature is given its own agency in both cases (assuming a menacing role in the former and a life-supporting one – albeit now described as failing – in the latter). What takes place is an ontological separation of nature from humans, or what Castree (2005) calls the “society-nature dualism,” viewing the environment as a discrete and independent realm of existence to which humans should be made ‘resilient’ on the one hand, and that they should learn how to manage, on the other.

Brown (2016, p. 1) suggests that “resilience thinking can potentially enhance not only our scientific understanding of social and ecological change processes, but also our policy responses to enhance well-being and life opportunities, particularly of poor people.” Thus, proponents of adopting resilience see clear value in describing populations and their respective ecological systems from this perspective rooted in ecosystem science. One of the main arguments for this approach is the focus of resilience thinking on change and uncertainty which offers, it is argued, a more dynamic way towards understanding what transition to sustainability might actually entail, in contrast to more “simplistic” understandings of change in earlier works on sustainable development (Brown, 2016). Along the same lines, it is also argued that a systems-thinking approach focused on resilience can improve the analysis of hazards and their localized impacts (Berkes, 2007). These ideas seem to have received much traction in academia – a recent study has shown that the number of scientific publications on resilience has grown consistently since the term was first used by Hollins in 1973 (Janssen, 2007; Xu and Marinova, 2013). The growing prominence of resilience in

development policy and practice has led Taylor (2014, p. 53) to include it in the “holy trinity” of adaptation, next to adaptive capacity and vulnerability.

Resilience has been effectively integrated into sustainable development and adaptation policies and programs in sub-Saharan Africa and elsewhere (Brown, 2016). It is perhaps no surprise that in the era of global climate management, resilience has gained a strong footing within development policy circles. The uncertainty of climate impacts requires societies to become better prepared for the unknown, and resilience has been offered as a much-needed theoretical response to describing and understanding change and uncertainty. In addition, rigidly planned interventions have been widely criticized over the last several decades as chronically unable to deal with unexpected circumstances, a response to which has been known in the context of international development programming as adaptive management or adaptive governance (Evans, 2012; Hurlbert, 2015; Pelling, 2011). Finally, the concept is of growing prominence among donors, including the European Union and the Global Environment Facility (GEF). The GEF’s Scientific and Technical Advisory Panel, for example, considers resilience thinking critical to meeting the Sustainable Development Goals (SDGs) (O’Connell et al., 2015). This growing popularity of resilience may also be due to the fact that the term has been seen as generally positive or optimistic, as it focuses on strengths rather than deficit models that tend to be applied in studies centered on vulnerability (Brown, 2016). As a result of these converging material and discursive trends, it is safe to posit that over the last several years, adaptation practice has been guided more strongly by heuristics of resilience rather than those foregrounding vulnerability.

Despite the traction that resilience has gained, along with the analytical focus on socio-ecological systems that it has popularized, it has also met with strong critiques from other quarters of social science, an effort spearheaded by political ecologists and geographers (Jennings, 2011; Orlove, 2009; Taylor, 2014; Watts, 2011). While resilience thinking is chiefly concerned with the effects of exogenous stimuli on a given socio-ecological system, critical scholars frequently note that it fails to integrate political economic processes that drive local responses to environmental change. In their very insightful article on the genealogy of resilience, Walker and Cooper (2011, p. 157) accuse the term of moving “from a position of critique (against the destructive consequences of orthodox resource economics) to one of collusion with an agenda of resource management that collapses ecological crisis into the creative destruction of a truly Hayekian financial order.” This is echoed by Watts, who also views resilience as a

form of green governmentality which only results in the perpetuation of the neoliberal capitalist system and a new “ecology of rule” (Watts, 2011, p. 88). Moreover, critical observers have suggested that vulnerability is in many cases relational, where increasing it for some comes at the expense of decreasing it for others (Taylor, 2013). I would argue that the same logic could apply to resilience. Resilience-centered adaptation, it has also been proposed, can work as a vehicle for capital accumulation and consolidation (Taylor, 2014). The differentiated impacts of neoliberal natural resource management on local people’s resilience is the subject of a number of critical studies in political ecology (see: Brown, 2016; Brown and Lapuyade, 2001; Mosse, 2005; Taylor, 2014; Watts, 2004).

Closely related to this is the critique that while resilience thinking is concerned with how change actually occurs within socio-ecological systems, applying it to analyze climate impacts such as droughts results in solutions which cement rather than challenge the social, economic, and political *status quo* that may be causing vulnerability in the first place (Bassett and Fogelman, 2013; Gillard et al., 2016). Resilience thinking frequently does so precisely by combining strategies relying on communities’ capacity for collective action and, drawing from NIE, their incorporation into the market economy. These strategies, however, are inherently conservative and do not lead to the kind of transformative effects that complex and often deeply stratified adaptation contexts arguably require (O’Brien et al., 2010b). In fact, Pelling (2011) equates resilience with coping, or various reactive, rather than proactive, strategies people employ when faced with both acute and chronic environmental disasters (Pelling, 2011). Similarly, Munaretto (2014) observes that Ostrom herself cautioned against adaptive management strategies – a common practical approach in resilience thinking – seeing them as inherently limited and incapable of delivering adequate responses to climate change impacts.

Another critique relates to, as for many other ‘buzzwords’ in social science, the vagueness or inconsistency in the application of resilience, both in theory and practice (Adger et al., 2007; Brand and Jax, 2007; Brown, 2016; Gillard, 2016; Turner, 2010; Walker and Cooper, 2011). Of particular importance here is the inconsistency with regard to the relationship between vulnerability and resilience, by many seen as two sides of the same coin whereby adaptation’s goal is to decrease the former while increasing the latter (Adger et al., 2007; Chishakwe et al., 2012). Perhaps even more importantly, Brown (2016) distinguishes between descriptive and normative approaches to resilience, the first originating in ecology and focusing on resilience theory itself, the

other generously used as an unquestionably desirable objective of adaptation policy and practice by a range of development actors. In the case of the latter, resilience is frequently defined without much theoretical rigor, if at all. Rather, it is seen as an important asset for promoting sustainable development across different scales (Brown, 2016; UNDP, 2011; World Bank, 2009). Interestingly, the internalization of resilience thinking by major development agencies resembles a similar practice by the World Bank with regards to social capital in the late 1980s and 1990s. This was also widely criticized by political ecologists and geographers for turning social capital into a driver of neoliberal policies, interventions, and subjectivities, with the unintended consequence of increasing rather than alleviating social inequalities at the local level (Fine, 2003; Fine and Lapavitsas, 2004; McCarthy, 2014).

2.3. Politicizing adaptation and vulnerability

Even though most academic work concerning adaptation still tends to be situated within the natural hazards school (Bassett and Fogelman, 2013), the increasing focus of the successive IPCC reports on social vulnerability and resilience suggests that the trend may be moving in favor of more human-centered understandings of adaptation challenges. Certainly, the step away from considering adaptation in terms of attenuating people's exposure to extraneous, environmental hazards towards a more socio-economic understanding of vulnerability is a step in the right direction in adaptation research. The authors cited earlier often touch on issues related to social and economic inequality, and its negative effects on certain people's ability to respond to negative climate impacts. They recognize that people who are marginalized due to their class, gender, ethnicity, or other social attributes tend to be hit by the same climate impact with disproportionate force. However, the point I would like to make in this chapter is that simply considering socio-economic attributes (such as poverty) as key causal factors of vulnerability is insufficient and inadequate (Dodman and Mitlin, 2013; Eriksen et al., 2015; Ribot, 2014; Sen, 1984). In analyzing vulnerability to climate change, and by extension planning various interventions aimed to address it, one must ask about, following Ribot (2014), the root causes of vulnerability. In a similar vein, Taylor (2014) sustains that 'vulnerabilization' is more important than 'vulnerability' itself. Indeed, asking *why* vulnerability exists rather than merely demonstrating its existence is a key analytical shift that I believe should occur not just in social climate science but any research concerned with social justice and inequality. Asking the *why* question turns any inquiry into a political analysis of a given situation, and shifts the analytical focus away from

economics and sociology to the realms of politics and political philosophy. In simple terms, it is not sufficient to say that a group of residents feels the effects of a drought more than their neighbors because of poverty and lack of education. Rather, we should be asking *why* they are poorer and less educated than their neighbors in the first place – a question that bears resemblance to those so often posed by political ecologists in the context of environmental governance.

For example, land tenure is a valid determinant of vulnerability to climate change impacts, secure access to land being one of the key factors that can increase people's adaptive capacity (Pulhin et al., 2010). A simple recognition of this fact, however, does not get us far. In this specific example, an interrogation is required into the causes of insecure land tenure if any intervention is to successfully decrease vulnerability (Ribot, 2014). Such interrogation involves questioning the power asymmetries that have led to and, more importantly, constantly reinforce the inequality in access to land, moving the inquiry into the realm of critical social theory. As such, it politicizes both vulnerability (in the sense that it traces its roots to explicitly political processes) and, by extension, adaptation to climate change (which it views as dependent on vulnerability and the political inequality that generates it). I argue that critical adaptation scholarship should shift its focus away from poverty, lack of capacity, low levels of education, or high unemployment rates – as important as these issues are – to questions of power and politics, and investigate how these latter concepts shape vulnerability and the adaptive process itself. Doing so, I believe, can provide a more nuanced understanding of why some people remain vulnerable to climate impacts while others manage to steer their livelihoods towards a more 'climate-proof' future (Gentle and Maraseni, 2012).

Thus, it is the political inequality of the studied places, rather than their widely acknowledged socio-economic stratification, that I view as the key determinant of vulnerability. In short, local vulnerability and adaptation, rather than just social, are explicitly political by nature (Eriksen et al., 2015; Nightingale, 2015; Taylor, 2014). Thus, in the shopping list of social, cultural, economic, and less commonly political explanations for vulnerability, I propose that it is political sphere that should receive more rigorous, if not primary, attention by adaptation theorists and practitioners alike. This explicitly political conception of adaptation is precisely why the relatively narrow group of critical researchers concerned with politicizing adaptation to climate change are highly skeptical of the prospects offered by the institutional strategies discussed above. To these researchers, adaptation is not a technical conundrum, to paraphrase

Swyngedouw (2011a, p. 268), but a political process that is strictly tied to the already existing inequalities that dominate local contexts in developed and developing countries alike. As such, adaptation cannot be singled out as a purely apolitical and techno-managerial issue addressed through strategies rooted in collective action and market integration (Eriksen et al., 2015; Nightingale, 2015; O'Brien et al., 2010a; Taylor, 2014). The uncritical focus on institutions such as local associations, and their undisputed positive effect on collective action and adaptive capacity, rests on the unrealistic assumption of absolute equality of local people and their independence from external political-economic forces (Mosse, 2006; Wilson et al., 2013).

While institutionalism often recognizes the power of rules, contracts, norms, and other cultural attributes in shaping adaptive choices and outcomes, it does not engage sufficiently with the specific effects participation in (or exclusion from) institutions means for individuals. Meanwhile, scholars critical of social capital have argued that “sociability cuts both ways” and may not only be ineffective, but actually result in negative outcomes for certain groups or individuals (Portes, 1998, p. 18). As Chiveralls (2012, p. 138) argues in this context, the rational choice framework that social capital approaches rest upon “denies the inherent complexity and contingency of social life and the power struggles with which it is imbued.” This is to say that local communities are not perfectly rational, competitive, and self-sufficient markets, but rather highly differentiated and ‘messy’ entities rife with relations of domination and exclusion (Wilson et al., 2013).

Similarly, NIE, while theoretically a step towards a more sophisticated understanding of individual economic behavior compared to neoclassical economics, does not engage with inequalities in the access to institutions and how these institutions often serve to exclude certain people. Attention is placed on participants’ rationality (even if bounded) and gametheoretic approaches to competition for resources (Cameron, 2000; Oberlack and Neumärker, 2011). Not only that, the problem of excludability which Ostrom (2008) mentions when discussing various factors affecting the action arena⁵ lies in the *inability* of participants to exclude those who do not ‘wish’ to contribute taxes or labor towards the production of a good but still reap the benefits from its production (a stance referred to as ‘free-riding’). Thus, rather than ensuring that everyone can participate in a collective activity, the issue for economic institutionalists lies in the excessive difficulty to *exclude* certain members from it. That those who free-

⁵ Action arena is the unit of analysis in Ostrom’s prominent Institutional Analysis and Development (IAD) framework (see: Ostrom, 2008).

ride may not be in a position to contribute equally due to their limited access to resources on the one hand, and that continuous exclusion would only serve to marginalize them further while the rest of the group benefits, on the other, are observations strikingly absent from institutional analysis. Instead, power and inequality, while in theory recognized by institutionalists, are given rather cursory theoretical attention. Ostrom (2008, p. 841), for example, lumps the unequal distribution of resources under the umbrella term of “attributes of the community,” itself one of the three variables she identifies as affecting the structure of the action arena. Similarly, Oberlack and Neumärker (2011) mention power as merely one of the many variables that affect one of the eight dimensions of an adaptation situation that they identify.

In the specific context of resilience to climate impacts, it has been widely argued that the focus on external stimuli engrained in resilience theory renders it dangerously agnostic about the complex social dynamics that determine the internal functioning of groups or populations. The concept of ‘social resilience’ has emerged as a response to this critique, which concerns itself with the quantity and quality of social networks between different actors across different scales (Adger, 2003; Thomas and Twyman, 2005). Yet, in the context of adaptation to climate change, these considerations are often seen as insufficient, as resilience thinking – much like the institutional approaches discussed above – is said to engage rather scarcely with questions of power and access to resources (Eriksen et al., 2015; Ribot, 2014). As a result, the oversight of power differentials in access to governing, and the resulting inequality, leaves resilience thinking unable to explain why so many development initiatives in so many contexts still produce winners and losers of adaptation to climate change (Adger et al., 2004, 2003; Neumann, 2005). Consequently, critical scholars often accuse resilience of favoring those who already hold power (Orlove, 2009). Taylor (2014) also notes that even if resilience thinking were able to discern the complex social inequalities that lead to differential capacities to adapt to change, these asymmetries, rather than being challenged and addressed, would likely be incorporated into complex adaptive systems models and as such normalized, making resilience part of the problem rather than a solution (also see: Jennings, 2011; Manuel-Navarrete, 2010).

Scholars who conceptualize adaptation as a political issue have analyzed it in a multitude of ways. Importantly, as Marino and Ribot (2012) argue, power in the context of adaptation and vulnerability to climate impacts should be analyzed by paying attention both to its material and discursive dimensions. Following the materialist approach, power can be drawn from economic (or material) attributes such as wealth or

occupation. If one understands vulnerability in relational terms (Taylor, 2013), it becomes clear that the low vulnerability of some people can come at the expense of others, and that the adaptations of the former may, both in terms of their perceptions and effects, constitute maladaptations for the latter (Magnan et al., 2016). Taylor (2014) provides a wealth of examples from India, Pakistan, and Mongolia on how adaptation functions as a driver for capital accumulation by agrarian elites, for example through their ability to exploit patron-client relations with other community members due to their superior wealth and material status, in general. Similarly, the experience of the Asian tsunami in 2004 has shown that natural disasters severely upset land tenure systems in the affected areas, with “land-grabbers” (of both local and foreign origin) having dispossessed local communities which could not reclaim their lost property based on traditional land rights (Wong, 2009). This area of adaptation studies also recognizes the global political economic processes surrounding and affecting adaptation, and is often based on insights from neo-Marxist theory (Felli, 2013; Taylor, 2014).

In more discursive terms, O’Brien et al. (2010a) consider the issue of framing in the context of climate change challenges. They note that deconstructing how climate change is framed by the global managerial discourse is of paramount importance, since “[i]n the same way that expert knowledge about global poverty co-produces both knowledge and politics, climate change knowledge co-produces a particular politics of poverty and vulnerability reduction” (O’Brien et al., 2010b, p. 6). They offer an alternative framing along the themes of equity, ethics, and reflexivity, which they suggest are better suited to address the underlying factors of people’s vulnerability. Moving to the local level, Eriksen et al. (2015) propose analyzing the use of power in the context of community-level adaptation by drawing from three concepts from social theory: authority, knowledge, and subjectivity. The approach goes beyond interrogating what kinds of decisions are made and by whom, and asks why some people are able to promote their understandings and interests more effectively and successfully than others.

For example, certain groups and individuals may draw power from traditional sources of authority, and this is the case of elders, village chiefs, or religious figures (Ribot, 2000; Vaughan and Tronvoll, 2003). As such, they can deliberately use this authority to influence the collective subjectivity of the community, which inevitably leads to the silencing of certain kinds of knowledge in favor of others (Foucault and Senellart, 2008; Ishihara and Pascual, 2009). In a study conducted in dryland Kenya, Mosberg and Eriksen (2015) empirically demonstrate how marginalized individuals’ engagement in what community elites consider “illicit coping strategies” (hunting wild

game, production of alcohol and charcoal, and prostitution) further undermines poor people's already tenuous social authority and position within the village. Socially-instituted cultural norms also play an important role, such as the predominant decision-making role of men in many traditional rural communities, or simply patriarchy (Bandiaky, 2008; Edvardsson Björnberg and Hansson, 2013; Jusrut, 2015; Nightingale, 2015; Ribot, 2000). The point to be made here is that adaptation, as a clearly political process, is embedded within the existing intra-community power relations rather than being detached from them. These considerations suggest that this material and discursive power play must not be ignored by those wishing to understand how adaptation unfolds 'on the ground.'

2.4. Post-politics and adaptation to climate change

In contrast to much research on adaptation to climate change, I posit that vulnerability has its roots in political rather than biophysical, social, or economic factors. This analytical point of departure is based on post-foundationalism (a theory of epistemology the roots of which are most frequently traced to Martin Heidegger) which asserts that all social orders are, first, contingent (or 'groundless'), and second, structured in such a way as to conceal this contingency (Marchart, 2007; Mouffe, 2005; Wilson and Swyngedouw, 2014a). First, according to the post-foundational philosophical thought, there exist multiple possible grounds, or foundations, upon which societies can potentially be instituted. Intellectual history comes to post-foundationalism's aid in this assertion, as it has recorded multiple examples of contingent, and now displaced, social grounds such as economic determinism, theology, positivism, and behaviorism (Marchart, 2007). In fact, the historical multiplicity of potential grounds itself proves their contingent nature (Marchart, 2007). Second, the dominant or hegemonic ground is never ultimate or finished. Instead, it must constantly reassert itself as a foundation in such a way as to conceal its contingency and secure its hegemony (Mouffe, 2005). A crucial point to be made here is that implicit in this epistemology is an ever-present possibility of change. No prevalent order is ever grounded, just as no society is ever completed, and so it must defend itself from the continuous possibility of being displaced by another foundation.

One of the major implications of the post-foundationalist epistemology is that, in short, it assumes the primacy of the political domain over society's social and economic spheres. Specifically, it is arguably within the political domain that the 'competition' of different grounds takes place, and it is the result of this struggle that ultimately

determines the configuration of social and economic relations within society. The prevalent social order is thus an outcome of a *political* decision (or struggle), rather than of an economic or a social one. In that sense, the political sphere could be interpreted as a meta-domain which determines the relations of power within a given socio-economic order. Left-Heideggerians, or theorists associated with this epistemological tradition, have thus produced a broad body of post-foundationalist literature that, despite internal contradictions and disagreements, shares an epistemological commitment to “the inherently objective nature and autonomy” of the political sphere (Marchart, 2007, p. 41). It is based on these theoretical considerations that I wish to foreground the need to analyze adaptation to climate change in political rather than social and economic terms.

2.4.1. Key concepts: Politics, ‘the political,’ and the post-political condition

As it has been argued above, post-foundationalism considers the political (meta-) domain superior to the social domain in its exclusive power to influence socio-economic relations. In short, politics shapes society, rather than the other way round (Swyngedouw, 2011a). Broadly understood politics is the arena where the hegemonic ground is constantly being defended and reasserted against other grounds (and where its own contingency is continuously masked). Therefore, the political sphere is the space where paradigmatic shifts in society, such as the move from feudalism to capitalism, are determined (Dikeç, 2005). To understand theoretically the modes in which such shifts do or do not occur, scholars of the Left-Heideggerian tradition have conceptualized the political difference: the distinction between politics and ‘the political’ as two irreducible components of the political sphere (Marchart 2007). The division between politics and ‘the political’ serves to describe the dynamics of the ever-present antagonism between the contending grounds, and is an attempt by radical political theorists of the Left like Mouffe, Rancière, or Žižek to contend with the seemingly unchallengeable entrenchment of the neoliberal capitalist relations in modern society.

Conceptualizations of the two terms abound, and at times are not used consistently throughout literature. For the sake of brevity, it can be posited that the concept of ‘the political’ describes the inherently antagonistic nature of human relations that will never permit society to reach a state of an ultimate ground, while – conversely – politics (sometimes referred to as ‘the police’) entails all those institutionalized social management practices that seek to ground society in line with the current (contingent) order and mask it as final or complete (Marchart, 2007; Mouffe, 2005; Wilson and Swyngedouw, 2014a). Thus, there exists a constant struggle between the dominant

social order (expressed by politics) and the forces that this dominant order refuses to acknowledge and include in governing (embodied by ‘the political’). The tension between politics and the political can be interpreted as a contestation of, following Rancière, the ‘partitioning of the sensible’ – the “systematic organization and naturalization of inequality as common sense” (Wilson and Swyngedouw, 2014b, p. 12). In the context of present-day Western societies, politics most often refers to all the political, social, and economic governance structures encapsulated within liberal democracy, while ‘the political’ manifests itself through the movements of political discontent such as Occupy, *Indignados*, or Tahrir Square, which challenge the dominant partitioning of social life embodied by the dominant, liberal democratic police order (Rancière, 2010; Wilson and Swyngedouw, 2014a).

Over the last three decades, Left-Heideggerians have noticed a consistent trend in the antagonistic dynamics between politics and the political, which was first theorized by Philippe Lacoue-Labarthe and Jean-Luc Nancy and conceptualized as ‘the retreat of the political’ from the public sphere (Marchart, 2007; Swyngedouw, 2011a; Wilson and Swyngedouw, 2014a). Lacoue-Labarthe and Nancy (1997) observed that in modern Western societies, the political merges with other authoritative discourses, such as socio-economic, technological, cultural, and psychological ones. As a result, the political becomes colonized by the institutionalized order of governing (politics or the police) in accordance with a liberal democratic principle of a consensual, antagonism-free society (Mouffe 2005). It is this account of the retreat of the political by Lacoue-Labarthe and Nancy that has given way to the theoretical tradition of post-politics or post-democracy. This “evacuation” (Marchart, 2007; Wilson and Swyngedouw, 2014a, p. 11) of the political from the public sphere is the key characteristic of societies afflicted by what is variably referred to as ‘post-politics,’ ‘post-democracy,’ or the ‘post-political condition’ (Swyngedouw, 2011b; Wilson and Swyngedouw, 2014a). According to this body of work, the post-political condition has far-reaching consequences for the state of democracy and its citizens.

First, in the post-political public sphere, dispute and disagreement are replaced by a fetishistic drive for negotiation and consensus at multiple scales of governance (Swyngedouw, 2011b, 2010). The political antagonisms inherent to society are reduced to policy problems now expected to be managed and solved using expert knowledge by qualified technocrats (such as economists or public opinion specialists) (Kenis and Lievens, 2014; Wilson and Swyngedouw, 2014a). The focus on consensus precludes the possibility of questioning and significantly altering the current social order, since

universalizing compromise becomes the main outcome of all political decisions. The material consequence of this is that governing becomes grounded within the capitalist market economy unquestionably perceived as the “basic organizational structure of the social and economic order” (Swyngedouw, 2011b, 2011a, 2010). Thus, the post-political condition eliminates the political dimension of human relations and replaces them with consensual governing based on representative democracy, neoliberal capitalism, and liberal cosmopolitanism (Wilson and Swyngedouw, 2014a). Politics colonizes the political and presents the end result as a fully grounded (or completed) society.

Second, and not surprisingly, post-political scholars see in this mode of governance a serious danger to democracy. If, following Mouffe (2005), the *sine qua non* of democracy is the possibility of confrontation between different hegemonic visions of society, then post-politics is essentially undemocratic, inasmuch as it represses any political project that does not fall within the dominating frame of liberal democracy and neoliberal capitalism (Swyngedouw, 2013a). The contingency of the hegemonic frame is vehemently denied under post-politics. As a result, inequality, conflict, power, and exclusion become invisible, posing a threat to democracy (Kenis and Lievens, 2014). Yet, as it was discussed above, post-politics simultaneously fosters consensual modes of governance. In fact, decentralized, participatory management is one of the hallmarks of post-politics. Thus, there is a contradiction between the insistence on participation and empowerment on the one hand, and the unconditional disavowal of the existing conflicts and the resulting inequalities on the other (Kamat, 2014). A certain paradox occurs within post-politics, whereby it aggressively mobilizes the democratic principles of participation and equality, which it uses, however, merely to mask its undemocratic nature. The following sections will further unpack these arguments with a particular focus on climate and adaptation governance, and by doing so delineate the analytical framework applied later in the thesis.

2.5. Unpacking the post-political condition: Representations, techno-managerialism, and consensus

The “administrative rationality” (Dikeç, 2005, p. 181) that mobilizes technocratic rather than transformative solutions to right the wrongs in society, while at the same time co-opting the wronged into the process of governing now called democratic or participatory, is the essence of the post-political condition. As I will seek to demonstrate, this logic is particularly relevant for studying adaptation to climate

change. Post-political theoretical frameworks have been applied to a wide range of issues, including spatial and urban planning, housing gentrification, the London riots of 2011, desalination, theme parks, golf courses, noise reduction, biodiversity conservation, and environmental refugees (Bettini, 2013; Celata and Sanna, 2012; Mason and Whitehead, 2012; Oosterlynck and Swyngedouw, 2010; Swyngedouw and Williams, 2016; Williams and Booth, 2013; Winlow and Hall, 2012). Swyngedouw (2010, p. 216) notes, however, that “the environmental question in general, and the climate change argument and how it is publicly staged in particular, has been and continues to be one of the markers through which postpoliticization is wrought.” Indeed, within the wide range of environmental contexts in which post-politics has been analytically deployed, it is climate governance that seems to have created a particularly fertile ground for post-political scholarship (see: Berglez and Olausson, 2014; Chatterton et al., 2013; Goeminne, 2012; Kenis and Lievens, 2014; Kenis and Mathijs, 2014; Kythreotis, 2012; Macgregor, 2014; Schlembach et al., 2012; Swyngedouw, 2013b, 2013a, 2011b, 2011c, 2010; Symons, 2014; Williams and Booth, 2013).

This is not surprising, since, as Kenis and Mathijs (2014, p. 151) astutely observe, “for more than 15 years now, (...) the IPCC panel has been trying to frame the climate issue as a scientific puzzle.” The international climate governance community has portrayed climate change as an exclusively environmental (as opposed to a social or a political) issue, allowing for a mobilization of technocratic, managerial, and market-based remedies to address the climate conundrum (Kenis and Mathijs, 2014). The problem is framed scientifically as an excessive content of carbon dioxide in the atmosphere, under the aegis of what Chatterton et al. (2013, p. 607) call the “carbon consensus,” with the solution based on its stabilization and subsequent reduction (Swyngedouw, 2011b). For example, the commodification of CO₂ in the form of carbon markets designed to reduce greenhouse gas emissions is a classic example of a market-based approach to ‘solving climate change’ (Bryant, 2016; Swyngedouw, 2010). This particular problematization, along with the selected salutary strategies, has depoliticized international climate policy. The political – in this case any kind of dissensus stemming from a different understanding of the causes of climate change, identified for instance as industrial capitalism – is eradicated from climate governance, cementing the selection and implementation of exclusively conservative, technocratic measures that remain within the frame of the dominant liberal-capitalist order (Swyngedouw, 2013a). Paradoxically, the system that has enabled the excessive release of carbon into the atmosphere is charged with finding the solutions to fix the planet’s climate predicament.

However, the vast majority of these post-political analyses of climate governance concern only one of its two facets – climate change mitigation. Mitigation can be defined as “actions aimed at limiting global climate change by reducing the emissions of greenhouse gases or enhancing their sinks” (Chishakwe et al., 2012, pp. 21–22; Grasso, 2010, p. 16). Adaptation, on the other hand, has so far evaded the attention of post-political theorists, with several exceptions (see: Symons, 2014). This may be due to the fact that post-political research has been historically centered on Western democracies and the global scale of global climate governance, where mitigation has traditionally dominated the policy-making arena (Celata and Sanna, 2012; Kamat, 2014). And while adaptation as a policy imperative is recognized and pursued in all parts of the globe, it has been most prominently approached as a challenge faced by developing countries due to their lower levels of preparedness. Therefore, and particularly in developing contexts, adaptation remains a path largely unexplored by scholars of the post-political thought.

This is surprising because post-politics, as I mentioned above, seems to be well-suited for analyzing adaptation. First, it relies heavily on specific discursive representations of climate and people. Apocalyptic imaginaries of climate change and of a human population vulnerable to its impacts are used to legitimize the universal need to adapt to an imminent, new climate future. Adaptation, in other words, is necessary, and

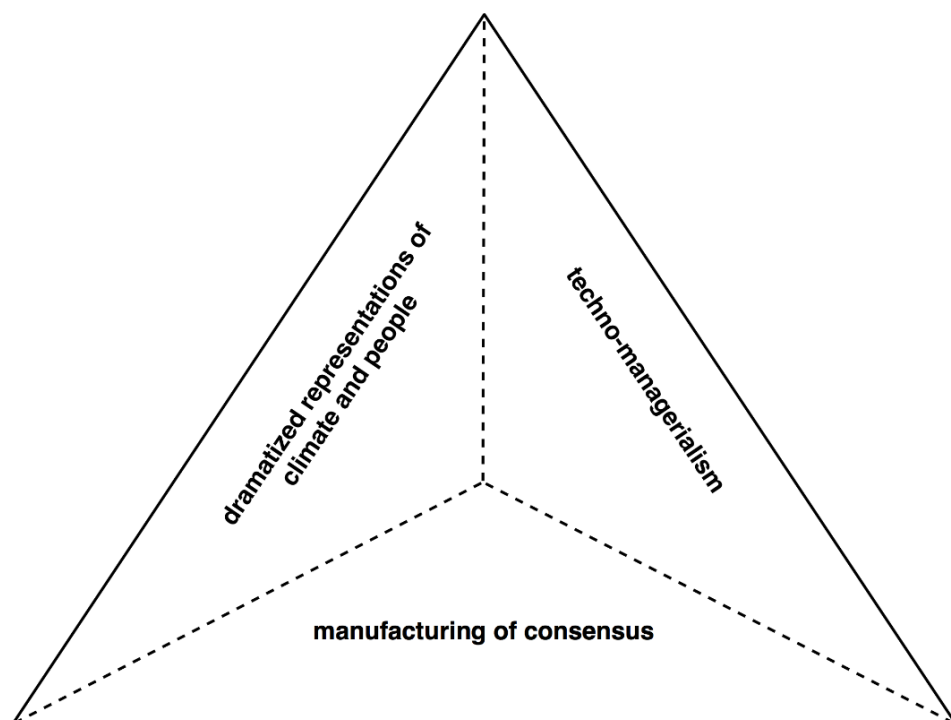


Figure 1. The three processes constitutive of the post-political condition of adaptation to climate change. Source: own analysis.

not adapting means peril. Second, it is not just any kind of adapting that is promoted. The fear-laden imaginaries of climate and nature, paradoxically, lead to technocratic adaptive solutions that have been produced by and at the same time heavily depend on the perpetuation of the dominant economic system of capitalist accumulation (often under the now pervasive label of ‘resilience’). Third, these conservative solutions are legitimized by strong participation – or more accurately co-optation – of those who are expected to adapt, ensuring that while techno-managerial adaptation to climate change unfolds, its inability to provide transformative effects is never questioned. These three concomitant processes, I argue, are constitutive of the post-political condition in the context of adaptation to climate change (see Figure 1).

2.5.1. Dramatized representations: The threat and the threatened

Kenis and Lievens (2014) note that depoliticization is essentially situated on the level of representation, suggesting that certain representations are key for the formation and perpetuation of the post-political condition. The global adaptation discourse relies heavily on the already mentioned society-nature dualism. Disjoining nature from the human world and presenting it as “something unambiguous” (Kenis and Lievens, 2014, p. 538) allows to assign it unbound agency and to ‘scapegoat’ it as the ultimate cause of our uncertain future, moving attention away from capitalism as the key driver of climate change (Castree, 2005; Swyngedouw, 2013b, 2010; Wilson and Swyngedouw, 2014a). This dualism, thus, makes certain processes uncontestable and invisible, and environmental issues – having no privileged subject of change – cannot defy their dramatized representations or ‘free themselves’ from technocratic control (Kenis and Lievens, 2014; Swyngedouw, 2010, 2009). Local expressions of this rogue climate regime in the form of rising temperatures, droughts, or sea-level rise become the phenomena to which vulnerable countries and individuals alike must adapt. The adaptation challenge is conceptualized as a vulnerable human system that must prepare itself to withstand the extraneous biophysical stimuli in order to survive – the same logic implemented by the above-mentioned resilience thinking rooted in the natural hazards theoretical tradition.

Indeed, what the ontological separation of humans and nature allows is a parallel social construction of a victim-enemy (humans-climate) dichotomy. Apocalyptic imaginaries of climate change pervade popular culture, and are extremely powerful in mobilizing calls for local, regional, national, and global efforts to address the problem, allowing humans to avoid or at least prepare for the “dystopian end of

times” (Symons, 2014; Williams and Booth, 2013, p. 26). The victimization of climate change has thus created a global society which perceives the process as one of the most serious challenges facing humanity today (Pew Research Center, 2015). Interestingly, this preoccupation with climate change is visible particularly in developing countries. In a recent survey on the international threats facing the world, climate change was the top concern in 19 out of 26 countries studied, including seven out of nine African states (Pew Research Center, 2015). These results testify to the success of securitization of climate change at the global scale. Chaturvedi and Doyle (2015) go as far as calling the various discursive mechanisms that relate to this securitization of global environmental change as “climate terror.” In the context of adaptation, this usually takes the form of language that creates an urgency to ‘brace for impact’ of climate change. Indeed, eliciting fear is at the very basis of these dramatized framings (Swyngedouw, 2010; Symons, 2014). This disempowering populist discourse, in addition to further reinforcing the climate-society dualism, creates a universal consensus around the urgent need to prepare for climate change impacts, providing a powerful legitimizing force for adaptation as a policy goal. In other words, in a time of crisis, dissensus is actively discouraged, as all social forces should work in concert to prepare the threatened human population for the unpredictable vagaries of climate (Macgregor, 2014; Swyngedouw, 2010).

This discursive dynamic carries significant implications not only for the popular understandings of climate change (in portraying it as a grave enemy), but also of those considered threatened by it. In the cacophony of calls declaring that we must adapt, the question of “Who is we?” is never asked (O’Brien et al., 2010b). Swyngedouw (2011b, p. 268) notes that in this context, “‘people’ are not constituted as heterogeneous political subjects, but as universal victims, suffering from processes beyond their control.” A process of social homogenization occurs, which denies the different levels of individuals’ complicity in causing climate change on the one hand, and their differentiated capacities to prepare for its impacts, on the other. Arguably, a telling example of this is the shift in global climate governance from the principle of common but differentiated responsibilities (CBDR) guiding the Kyoto Protocol to a more universalist approach inspiring the Paris Agreement, which recognizes that all nations – and not just the industrialized ones – have the moral responsibility to reduce their emissions and that ‘we’re all in this together.’ Similarly, moving down to the national level, Symons (2014) demonstrates how the Kenyan nation is represented by its national adaptation policy as a generic, undifferentiated population that will be affected equally

by the imminent climate impacts. In doing so, Symons argues, the policy negates society's heterogeneity and complexity, and depoliticizes climate governance.

Feminist and post-colonial theorists are very familiar with this homogenizing process of denying difference, which they have observed in the particular context of developing countries. For Jasanoff (2010, p. 235), "an impersonal, apolitical, and universal imaginary of climate change, projected and endorsed by science, takes over from the subjective, situated and normative imaginations of human actors engaging directly with nature." This imaginary, thus, eliminates the more experiential understandings of climate change, and instead foregrounds those rooted in Western rationality and scientific objectivism (Kythreotis, 2012; Taylor, 2014). This is echoed in Macgregor (2014) who argues that this process of social homogenization has the effect of marginalizing the voices of the less powerful from the debate. Meanwhile, by adopting a post-colonial perspective on the global North-South divide, Chaturvedi and Doyle (2015, p. 47) compellingly argue that the "day of reckoning" humanity is supposed to be collectively preparing for already exists, and that "the metaphoric flood is in the past, not in a climate-changing future." However, the universalist depiction of both the climate threat and of humanity denies these spatio-temporal differences in causing and experiencing climate, and foregrounds perspectives that are explicitly Western by nature.

The concept of discursive violence, which derives from post-colonial theory, is useful here in explaining how adaptation unfolds at the level of representations in developing countries. Discursive violence entails "processes and practices to script groups or persons *in* places, and in ways that counter how they would define themselves" (Jones et al., 1997, p. 394, emphasis in original). States and local people in the Global South alike are represented in a very particular mode that denies their ability and agency to adapt without external help. As Escobar (1995, p. 8) pointedly notes, development literature – and to this I would add practice – creates a:

subjectivity endowed with features of powerlessness, passivity, poverty and ignorance, usually dark and lacking in historical agency, as if waiting for the (white) Western hand to help subjects along and not infrequently hungry, illiterate, needy and oppressed by its own stubbornness, lack of initiative and traditions.

This depiction, I argue, is emblematic of the image development actors such as UNDP and state institutions have of the vulnerable subaltern, or what I would like to

refer to as ‘subjects of adaptation,’ to paraphrase Ribot (2000, p. 44). Just as development studies rely on the ontology of underdevelopment, a concept that legitimizes development intervention itself (Tripathy and Mohapatra, 2011), approaches to adaptation rely on a parallel ontology of vulnerability, which warrants external assistance to those in climate peril. The discursive violence of adaptation relegates both governments and local people in the Global South to a permanent, inalterable space of vulnerability and precariousness. A specific imaginative geography of their vulnerabilities is produced (Said, 2003), whereby adaptation becomes a *leitmotif* for justifying Western-designed interventions to assist local people in desperate need of resilience to a menacing climate in the distant, vulnerable periphery.

The discursive production of the climate threat and of the need to prepare for it has a similar, homogenizing effect on rural communities. Here, the term ‘community’ itself becomes problematic, and has been challenged by a number of theorists (Delanty, 2010; Gläser, 2001; Peet et al., 2011; Peters, 2000; Watts, 2004). Perhaps it is the focus on discrete groupings of people in locations that are often physically, socially, economically, and culturally remote from the workings of the modern state that has produced a certain propensity in much development and adaptation research to view community as something uncontestably positive (Watts, 2004). Rural communities tend to be uncritically portrayed in romantic terms as simple, communal, and idyllic entities with strong cultural, spatial, and historical bonds and little internal differentiation (Agrawal and Gibson, 1999; Dixon, 2011; Evans, 2009; Neumann, 2005; Peet et al., 2011; Petrova, 2014; Young, 1986). A small community of people who personally know each other, interact on a daily basis, and in consequence share similar interests, agendas, values, and beliefs, seems to be the vision of rural places frequently and uncritically adopted both by scholars and practitioners of development and adaptation (Adger et al., 2007, 2006; Neumann, 2005; Watts, 2004).

Providing historical context for this process, Ribot (2000, p. 51) reports how the objective of the colonial administration in the Sahel was to “civilize” Africans not as individuals but as communities, embedding people in the “native” power structures that were considered communal and customary by the state. The internal diversity of communities was effectively disavowed. In this sense, community should be read as “an expression of modern rule” which totalizes the subaltern subject under the umbrella of community for the purposes of a wider power structure of the state and international actors (Watts, 2004, p. 197). However, the empirical evidence to date leads to the conclusion that communities are far from homogenous, egalitarian, or consensual

(Adger et al., 2006; Peters, 1996). On the contrary, they can be understood as theaters of inequality, conflict, patriarchy, and sometimes outright exploitation and oppression (Delanty, 2010; Peters, 1996). Indeed, climate change adaptation literature is rife with examples where the costs and benefits of adaptation have been distributed unequally among community members, the possibility of which adaptation policies and projects had simply failed to anticipate (Adger et al., 2006; Chen et al., 2014; Jennings, 2011; Magrath, 2010; Marino and Ribot, 2012; McCarthy, 2014; Mosberg and Eriksen, 2015; Taylor, 2014).

The social homogenization mentioned above is not, however, absolute. Namely, under the post-political condition of adaptation governance, there exists a strong differentiation between the actors who are to adapt and those who are to assist them in doing so. As Jasanoff (2010, p. 235) astutely points out, the politics of nature have become increasingly played out under the apolitical denominator of “environment,” which amounts to a “domain of ideas and entities accessible only with the aid of science and technology.” What needs to be added here is that access to this domain is heavily restricted. Swyngedouw (2010, p. 227) hints in this context at the distinction between those deemed sufficiently “responsible” to govern climate – such as experts or NGOs – and those who are excluded from the process by being labelled “irresponsible.” Thus, the political antagonisms inherent to adaptation are reduced to policy problems to be managed and solved using expert knowledge by the assigned qualified technocrats (Kenis and Lievens, 2014; Swyngedouw, 2013a; Wilson and Swyngedouw, 2014a). This translates into relegating enormous decision-making powers to international consultants, economists, project managers, engineers, and other members of the epistemic community of international adaptation professionals who collectively steer the direction of the global adaptive effort. Symons (2014) speaks in this context of moral anti-politics, which involves the removal of morals and ethics from framing adaptation, and their replacement with econometrics and statistics. Those without expert knowledge and operating outside the relatively small circle of internationally-established adaptation experts, including local people with little education and few resources, are sidelined in the process and effectively deprived of control over their own adaptations. Instead, they are presented with solutions which are products of a specific, techno-managerial approach to adaptation challenges.

2.5.2. Markets, institutions, and technology

Post-politics is marked by the predominance of a managerial logic in all aspects of life, the reduction of the political to

administration where decision-making is increasingly considered to be a question of expert knowledge and not of political position (Swyngedouw, 2010, p. 225)

The cover of the November 2015 issue of the conservative *Focus: Science and Technology* magazine welcomes the reader with a rather surprising if comforting headline: “Climate Change: Problem Solved” (Welch and Mueller, 2015). Underneath, the authors elaborate: [W]e reveal how big ideas from science will save the planet.” The cover story delivers an extensive account of the clean technologies that, it is argued, will become humanity’s key weapons in combating climate change. The authors depict a futuristic landscape dotted with marine solar arrays, wind turbines floating in the skies, and energy storage systems that concentrate heat in underground rock formations. Other measures involve geo-engineering techniques such as ocean fertilization, whitening the clouds to increase sunlight reflection, cooling ocean surface, and even shooting excess CO₂ out of the atmosphere! The ordinary focus of the publication on novel scientific ideas notwithstanding, Welch and Mueller’s article is a textbook case of the apolitical, techno-managerial approach to solving the climate conundrum. It can be argued that the authors, if not entirely certain, are at least excited and hopeful about the promises that ecological modernization holds for our future. This Promethean optimism underpins the general belief that technology and expert knowledge will help us mitigate, or at the very least adapt to, a climate catastrophe (Dryzek, 2013; Swyngedouw, 2013a; Welch and Mueller, 2015).

While technological solutions, combined with the power of markets, are to be used to reduce the excessive saturation of the atmosphere with carbon dioxide, adaptation similarly relies on markets and technology in readying humanity for climate impacts (Symons, 2014). Drawing from the already discussed disaster and hazards school and predicated on the nature-society dualism, which frame adaptation as a necessary response to the disruptive effects of climate stimuli on people, techno-managerial adaptation approaches the environment as a mere “life-support system” for humanity, where the erratic, abnormal, and out-of-sync forces of nature need to be leveled to protect the stable and bounded domains of social systems (Luke, 1999, p. 110; Taylor, 2014). This particular outlook translates what is a deeply political problem into a technocratic riddle that requires expert skills to reassemble the system’s parts in order to reclaim a lost balance or state of resilience (Tschakert and Machado, 2012). Techno-managerialism, an approach to problem-solving grounded in Cartesian rationalism and embedded within Western scientific tradition, assumes the possibility of

comprehensively breaking down a given system into distinct pieces, assessing and understanding their roles, and providing recommendations for each in order to achieve a desired objective (Luke, 1999; Orlove, 2009; Taylor, 2014). Importantly, this is happening increasingly under the banner of resilience thinking and the complex adaptive systems theory (Brown, 2016). Scientific expertise is mobilized in order to assess the components of the coupled society-climate system and provide recommendations for how to minimize or eliminate the predicted negative impacts of the former on the latter. Thus, the approach presumes the manageability of adaptation and calls for a comprehensive plan to address the climate issue (Adger et al., 2003).

The techno-managerial approach has one very important characteristic – its focus on standardization, which is strictly related to the social homogenization discussed above. The hegemonic neoliberal framing of adaptation approaches strongly favors efficiency, which can be achieved by developing and implementing standardized tools to promote adaptation nationally and locally. This requires a translation of the notion of ‘people,’ a heterogeneous and by definition political grouping of individuals, into that of the ‘population,’ an empty signifier which can be broken down into separate empirical categories and thus easily managed (similarly to the notion of ‘environment’ mentioned earlier) (Dikeç, 2005). In their study on adaptation projects funded under the Least Developed Countries Fund (LDCF), Sovacool et al. (2012a) discern a pattern in the setup of four different adaptation initiatives in Cambodia, Bhutan, Bangladesh, and the Maldives – culturally, geographically, and politically distinct states, each with very different adaptation needs. All four projects have been shown to promote the same three kinds of resilience: infrastructural, institutional, and community.

Meanwhile, critical scholars have consistently pointed out that just as vulnerability is highly context-specific, so are the solutions to adaptation needs (Adger et al., 2004; Gentle and Maraseni, 2012; Mertz et al., 2009). However, the drive for efficiency, combined with the homogenizing discourse of adaptation itself mentioned earlier, have traditionally led to ‘cookie-cutter’ strategies that often fail to appreciate the complexity of socio-political contexts. Local inequalities are disavowed, and the ‘messiness’ of social life excised from governing adaptation in favor of more Cartesian approaches that impose, rather than explore, patterns of human adaptive behavior. In practice, the result of this has been a growing mismatch between the adaptation needs of the local communities and the international institutions acting as agents of the global managerial discourse of adaptation (Adger et al., 2006). Funds are often disbursed according to donors’ understandings of adaptation, which have far too often been

circumscribed to impact assessments, analytical work, and capacity building as opposed to practical implementations of relevance for local people (Harris and Symons, 2010; Magrath, 2010). For example, empirical research in a Malawian community has identified the construction of crèches for HIV orphans as a viable adaptation strategy for local women, who could then benefit from additional time now needed for farming (Magrath, 2010). Unfortunately, such a measure would normally not qualify as a fundable adaptation strategy with an international adaptation aid donor.

As Swyngedouw's quote at the beginning of this section suggests, the "managerial logic" that drives techno-managerial adaptation policy and practice reduces this highly political and stratifying process to social administration. In contrast to engaging in a truly political, agonistic exchange on the different possible futures of adaptation, standardized environmental intervention requires closure and definitive choice, thus inevitably resulting in exclusion and silencing (Swyngedouw, 2011b, 2010). This scientific framing of adaptation carries very significant implications for the selection of potential solutions, which are intrinsically technical and market-based (Brown, 2011; Hughes, 2013; Shuhrke, 2013; Tanner and Allouche, 2011). Since the 1980s, through a process identified by Blühdorn (2013) as the "post-ecological turn," eco-political discourses have been shifting towards stances that are increasingly open to ecological modernization, which seeks to green the modern market while preserving its growth-oriented, liberal democratic model (Dryzek, 2013; Kenis and Lievens, 2014). This "hegemonic grip of neoliberal ideas" has today resulted in remedial mitigation and adaptation strategies that are liberal, managerial, and technocratic, producing a zero-sum discourse of "technology or apocalypse" (Catney and Doyle, 2011, p. 178; Kenis and Mathijs, 2014). Macgregor (2014, p. 619) notes how the "economic reasoning of neoliberalism, as expressed by such institutions as the World Bank and the IMF, makes good governance synonymous with arrangements that maximize efficient policy solutions while minimizing obstacles to their implementation."

Thus, grounded in the confidence in science, technology, and the market, techno-managerial adaptation promotes "disaster preparedness" through standardized governance and planning systems, technology transfer, and various technological, institutional, and market-based risk-reduction measures (Brown, 2011, p. 28; Chishakwe et al., 2012; Tanner and Allouche, 2011). These most often involve corrective, top-down, technical, and carefully managed solutions put forward as answers to local adaptation dilemmas (Bryant, 1997; Shuhrke, 2013; Tschakert and Machado, 2012). Genuine appreciation for the social and cultural, let alone political, nature of the

problem and even modestly ambitious social goals are absent, as they only add unnecessary complexity to adaptation interventions (Marino and Ribot, 2012).

In addition to the NIE-inspired approaches to local development cited earlier, examples of this hegemonic influence of neoliberalism in climate governance are numerous. In the already-mentioned study that applies the post-political lens to adaptation, Symons (2014) critically analyzes Kenya's adaptation policy, concluding that, in addition to relying on an apocalyptic framing, the document considers adaptation as a strictly technical-economic problem. Another example is provided by Chatterton et al. (2013), who note that the COP15 in Copenhagen in 2009 was an opportunity for big business to present technology, science, and market-based solutions to climate change mitigation and adaptation problems through an exhibition held in the city center and perversely called "Hopenhagen." Finally, the detailed guidelines by UNFCCC pertaining to the scope and methods implemented by NAPA projects, including cost-benefit analysis, vulnerability indices, adaptation cost estimation tools, risk analysis, and expert judgment, are a case in point (UNFCCC, 2014). These projects are primarily concerned with applying innovative technologies and following institutional and market-based strategies at the community level.

Scholars concerned with the post-politicization of climate governance point out that while the dominant eco-consensus calls for a radical change to avoid a climate catastrophe, paradoxically, the proposed and implemented remedies are always taken from within the existing social paradigm, or Rancière's partitioning of the sensible (Rancière, 1999; Swyngedouw, 2011b; Symons, 2014; Williams and Booth, 2013). Rather than allowing different sides of the political debate openly agonize over different possible socio-ecological futures, the post-political condition of climate governance is marked with a "poverty of imagination" that prevents any change that would go beyond cosmetic (de Goede and Randalls, 2009, p. 874). For as Swyngedouw notes, under post-political climate governance, problems are not solved but merely "moved around" (2011b, p. 270). Solutions are always contained to the dominant frame of liberal capitalism. Some observers note that the conservative techno-managerial solutions to adaptation – such as livelihood diversification, increasing local incomes, or adopting green technologies – not only fail to address local adaptive challenges by missing the root causes of vulnerability, but actually work as a capitalist fix by providing new avenues for accumulation and market penetration (Chatterton et al., 2013; Felli, 2013; Taylor, 2014). At the local level, this can also work towards favoring local elites and cementing, rather than challenging or at least working around, the inequity with which

adaptation is inherently marked (Eriksen et al., 2015; Magnan et al., 2016; Symons, 2014). Adaptation of this kind becomes part and parcel of the post-politicization of climate governance and sustainable development, in general (Brown, 2011). While the term itself implies change, as it evokes a need to respond to a threat to one's life or livelihood, in the end, the dominant mode of techno-managerialism ensures that "nothing really has to change" (Swyngedouw, 2011b, p. 264).

2.5.3. Participation and the manufacturing of adaptive consensus

Earlier in the chapter, I have hinted at the importance of securing a climate consensus for legitimizing the currently dominant adaptation policies and practices in developing countries, an argument that I will develop here further. The manufacturing of consensus in the context of adaptation is the third element constitutive of its post-political condition, next to dramatized representations of climate and its victims as well as adaptation's techno-managerial configuration. In the context relevant for this research, this consensus-forming can be first demonstrated by discussing the participation paradigm that has greatly influenced how adaptation is carried out by international organizations in local communities. Second, the participation of everyone in consensual adaptation governance works to produce or solidify a subjectivity that further legitimizes *and* perpetuates the hegemonic, neoliberal framing of adaptation policy and practice. The following sections will address these two aspects of consensus production in climate governance.

The ontological division between 'politics' and 'the political' discussed earlier in the chapter proves particularly useful in explaining the post-politicizing dynamic occurring in the governance of climate in general, and adaptation in particular. Following Rancière, Dikeç (2005) notes how the police (confusingly, Rancière uses the term 'police' to denote the traditional Left-Heideggerian understanding of 'politics') is an established order of governance based on a partitioned spatial organization, where all the parts of society are named, assigned specific roles, and thus put in their 'proper place.' The political is thus the constant possibility of rupture of this seemingly saturated spatial order, and to prevent its manifestation, it is of utmost importance to manufacture consensus on the inevitability of the given social organization or ground (Dikeç, 2005; Marchart, 2007; Mouffe, 2005; Rancière, 1999). In the context of governing adaptation, the international climate community, with its particular understandings of climate change, its victims, and the required techno-managerial strategies, act as the police. Thus, the police order of UNFCCC displays a particular

understanding of adaptation, which however is not the unique path to be taken – in fact, it is contingent. This is precisely why consensus must be manufactured to legitimize the course of action promoted by national governments, international organizations, international financial institutions, and any other development agents involved in the UNFCCC process. The choice of this course of action is highly political, and inevitably gives way to winners and losers (Mouffe, 2005). The political moment – through which those ‘wronged’ could contest the dominant order by asserting equality – must be averted by co-opting all the actors involved in adaptation, allowing the police to claim the democratic nature of governance. Thus, the democratic values and innovative participatory governance modes are “metamorphos[ed] into tools for managing the condition of sustained ecological and social unsustainability” (Blühdorn, 2013, p. 16). In short, it is the formation of the ‘adaptive consensus’ which legitimizes the dominant frame of adaptation as requiring techno-managerial solutions that denotes the end of politics.

In terms of how this manufacturing of adaptive consensus occurs in practice, Swyngedouw (2011b, p. 270) notes that the “architecture of consensual governing takes the form of stakeholder participation or forms of participatory governance that operates beyond-the-state and permits a form of self-management, self-organization, and controlled self-disciplining.” Thus, citizens are invited to partake in participatory mechanisms such as stakeholder consultations but, as critically-inclined scholars suggest, this participation is used to impose consent that serves the political and economic interests of the elite minority rather than to meaningfully include the subjectivities of others into governing (Catney and Doyle, 2011; Cooke and Kothari, 2001; Macgregor, 2014; Symons, 2014). Thus, participatory mechanisms, as Catney and Doyle (2011, p. 179) note, have the goal of furthering:

a sense of solidarity through the development of a ‘global we’ which is dominated by the rationalities, and serves the interests, of the minority global North. In short, participatory mechanisms are under development in the global South which act to manufacture this consent of the primary importance of the ‘citizen of the future’ over the welfare of current citizens in the global South.

Newell (2015, p. 215) refers to this process as “neoliberal disciplinary participation,” a seemingly oxymoronic term which denotes a kind of involvement in governance where the possible choices are delimited from the outset by the organizers. Importantly, the process does not impose the ‘correct’ choices on the participants in an

overt way. On the contrary, discussion, disagreement, and disputes among the participants may actually be encouraged, on the condition that they remain circumscribed to the narrow frame of neoliberal capitalism (Boezeman et al., 2014; Swyngedouw, 2011b, 2010).

In the context of promoting adaptation in the Global South, it is necessary to bring up the ‘participatory turn’ in development studies and practice (Dodman and Mitlin, 2013). While the review of participation literature is far beyond the scope of this thesis, it is nevertheless instructive to point out where this extensive body of work meets the post-political framework applied here. This is clearly demonstrated, for instance, by the contributions in *Participation: The New Tyranny*, a seminal book for critical participation studies edited by Bill Cooke and Uma Kothari (2001). In it, Kothari refers to participation as the “New Grand Narrative of Development,” which, while by no means new at this point, is certainly still grand in the context of how both development and adaptation are carried out ‘on the ground.’ From her critical perspective, the spaces of participation are seen as theaters of power exchange and assertion, not only between participants and the practitioners, but also when it comes to the constitution of knowledge and social norms, in general.

While participatory development seeks to bring forth the voices of those traditionally marginalized, Kothari (2001, p. 142) recognizes that “the very act of inclusion, of being drawn in as a participant, can symbolize an exercise of power and control over an individual.” Thus, it may be more appropriate here to speak of local people’s *co-optation into* rather than participation in development initiatives. This has the end result of making it even more difficult to those co-opted to effectively challenge the *status quo* and subvert the consensus which participatory development methods so adamantly seek to manufacture (S. Cohen, 1985; Dikeç, 2005; Hilde, 2012; Mosse, 1994). Not only are communities homogenized in the process as outlined earlier; it is also important to note that the police order of neoliberal development seeks to legitimize itself constantly by those enrolled into participating, thus rendering the encounter between adaptation or development professionals and local people decidedly more beneficial for the former than for the latter (Mosse, 2006, 2005).

The UNFCCC system which guides the global effort of techno-managerial adaptation has also been widely criticized in this context. Dodman and Mitlin (2013, p. 655) note that “the existing funding structures and systems of the official development assistance agencies makes genuine local engagement difficult or impossible.” Indeed, the institutional environment of adaptation at the UN level can be said to be hostile to

any meaningful deliberation or political emancipation of new actors. Opportunities for regular citizens' involvement, and consequently for agonistic encounter between diverging political views and visions of the future, are severely limited under this regime. The decisive powers rest with national agencies, international financial institutions, development organizations, and the technocrats accredited to them (Dodman and Mitlin, 2013; Jessop, 2002). A powerful symbol for the exclusively top-down configuration of formal adaptation governance was the already mentioned COP15 summit in Copenhagen, which was accompanied by Kilmaforum09, an alternative climate summit organized in parallel to COP15 by civil society organizations. Its final declaration, titled *System change – Not climate change* and signed by 295 organizations, explicitly called for the rejection of the market-centered and technology-oriented solutions to climate change, as well as for adequate compensation for all groups and people affected by its impacts (Kilmaforum09, 2009). The summit itself could be viewed as a spatial manifestation of the political, which sought to rupture the hegemonic self-representation of COP15 as *the* climate summit of the world's peoples.

The UNFCCC-led NAPA process which guides the development and implementation of adaptation policies, programs, and projects in the world's least developed countries has also faced challenging critiques (Agrawal et al., 2012). NAPAs are adaptation policy documents with structure and contents rigidly defined by the international climate community (UNFCCC, 2002). While a participatory approach involving various stakeholders is one of the conditions for project approval and funding (UNFCCC, 2014), NAPAs and the resulting interventions have been accused of being irresponsible to local views, institutions, and circumstances (Agrawal et al., 2012; Chishakwe et al., 2012; Fortier, 2010; Pulhin et al., 2010). Stakeholder participation is built into the design of all such initiatives, and participatory meetings with the affected people do take place at various stages of preparation and implementation. However, at the same time, the scope of these meetings is defined from the outset, and issues that fall outside the pre-determined range of acceptable frames of decision-making are ignored (Adger et al., 2006; Fortier, 2010; Hughes, 2013). Importantly, the vast majority of NAPAs and NAPA projects, including the case study project analyzed in the chapters to follow, focus on rural areas and are primarily concerned with food security (Agrawal et al., 2012). As a result, they tend to promote agricultural intensification as a default adaptive measure, which may entail export of irrigation technologies to the Global South, and the use of fertilizers and climate-resistant crop varieties (Loo, 2014). The localized consequences of this modernization approach to adaptation for local

communities, including issues of path dependency, accessibility, risk perception, and cultural disruption, are ignored, despite similar and historically well-documented impacts of Green Revolution in the Global South (Loo, 2014).

With regards to adaptation at the community level, all the critiques that have been launched against similar participatory development approaches hold for CBA. As mentioned earlier in the chapter, as an apolitical, institutional approach, CBA does not in any way tackle the problem of why certain people are more vulnerable than others. It can certainly provide a snapshot of the existing institutions on the ground by “unearth[ing] who gets what, when and where” (Kothari, 2001, p. 141), but CBA-based strategies have seldom asked, let alone addressed, questions involving uneven power relations at the community level and beyond, which, as the earlier sections suggested, are of paramount importance for people’s adaptive capacities. Moreover, mobilizing people against a non-existing enemy (climate) and circumscribing this mobilization to the community level poses no threat to the interests of the global climate governance community (Dodman and Mitlin, 2013). In this case, heavily localized approaches to adaptation work to smother political deliberation that could potentially uncover the root causes of people’s vulnerability along with the key role capitalism has played in causing climate change in the first place. This kind of participation, then, only serves to legitimize adaptation as understood by the organizers to those considered vulnerable to climate impacts.

Moving away from the embodied forms of producing consensus to more discursive, and as such perhaps even more powerful ones, it is important to note that the post-political condition perpetuates a specific kind of subjectivity (Agrawal, 2005; Boyd et al., 2014; Chandler and Reid, 2016; Singh, 2013), which is structured “around dialogical forms of consensus formation, technocratic management and problem-focused governance, sustained by populist discursive regimes” (Swyngedouw, 2010, p. 215). As Kenis and Mathijs (2014, p. 152) note, the sentiment of fear that permeates the catastrophic discourse of climate strongly restrains “space for asking fundamental political questions about our current society.” In fact, Boezeman et al. (2014) note that the organizers tend to expect that participants will not challenge the outcome of a given policy once they have learned the complexity of the issue at hand – a powerful discursive strategy to legitimize the technical solutions promoted by adaptation policies in developing countries. As a result, the economic foundations of the global system become normalized, producing an all-pervasive, collective conviction of the

inevitability of capitalism and of its ability to solve local adaptation issues (Berglez and Olausson, 2014; Kamat, 2014; Swyngedouw, 2010).

The manifestations of this subject-making process were studied empirically by Berglez and Olausson (2014). During focus groups they conducted with members of the Swedish public, they noted how the belief in and the experience of a climate threat generate a consensual discourse on climate change, which fails to acknowledge the capitalist system as its root cause. Rather, more individual approaches to tackling the climate challenge dominated among participants, according to which it is every citizen's duty to adopt behavioral changes that will help prevent global environmental change from progressing. The process has been referred to as 'responsibilization,' of which another example is the widely cited 10:10 campaign – an explicitly apolitical initiative in the UK which called every citizen to reduce their carbon footprint by 10 percent per year (Macgregor, 2014).

These behavioral changes are also promoted in the context of adaptation in the Global South. Institutional approaches to enhancing local communities' adaptive capacity serve to produce a neoliberal governmentality that legitimizes devolving the responsibility to adapt to climate change to the poor and vulnerable themselves (Dodman and Mitlin, 2013; Kamat, 2014; McCarthy, 2014). This responsibilization of adaptation greatly facilitates the neoliberalization of everyday practices and attitudes in places where they may not yet be well-established, as neoliberalism is not just about policies, such as promoting foreign investment or reducing trade barriers (Kamat, 2014). Rather, neoliberal rationality "reaches from the soul of the citizen-subject" and "involves *extending and disseminating market values to all institutions and social action*" (Brown, 2003, emphasis in original). Techno-managerial projects that rely on the institutional and market-based approaches outlined earlier in the chapter – often as part of community-based adaptation – are a case in point. They work to produce adaptation subjects to fit the techno-managerial frame perpetuated by the global climate governance community. In the words of Freire (cited in O'Brien et al., 2010b, p. 11):

The educated individual is the adapted person, because she or he is better 'fit' for the world. Translated into practice, this concept is well suited to the purposes of the oppressors, whose tranquility rests on how well people fit the world the oppressors have created, and how little they question it. The more completely the majority adapt to the purposes which the dominant minority prescribe for them (thereby depriving them

of the right to their own purposes), the more easily the minority can continue to prescribe.

In this case, the neoliberal hegemony educates the individual on how they should adapt to climate change to better fit the new environmental order. The economico-scientific framing of adaptation alienates ordinary humans, turning them from “participants” to mere “spectators” of their own adaptation (Goeminne, 2012, p. 6). Local perspectives which contradict the dominant neoliberal framing of adaptation predicated on technological or economic terms are silenced and replaced with a more appropriate, subaltern subjectivity. This disempowering discursive dynamic ensures that the spread of neoliberal policies continues unattested among vulnerable people in vulnerable places, fueling the process of adaptation’s post-politicization (Macgregor, 2014; Swyngedouw, 2013b, 2011a). In this sense, adaptation policy and practice is merely part and parcel of the broader project of expanding neoliberal subjectivity and capitalist accumulation in the Global South.

Post-politics and the Global South

A note is warranted here on the applicability of post-political analysis to developing country contexts. Post-politics has its roots in late 20th-century Europe and, as a response to the contemporary political events in France, is an ethnocentric intellectual tradition (Marchart, 2007). A critique can therefore be lodged about the choice of this historically-specific analytical lens to contemporary adaptation contexts in the Global South as an instance of intellectual colonialism. Indeed, as Kapoor (2008) astutely notices when discussing the relevance of Habermas and Mouffe’s democratic theories for the Third World, post-political thought in general does not lend any meaningful attention to non-Western political contexts, including their extremely deep material and symbolic inequalities.

However, I argue that post-politics is not only possible to observe, but may even take an amplified form in the Global South, making discursive violence and the material exploitation of those excluded even more acute than in the West (Kapoor, 2008). In other words, it may be easier for development organizations to impose a certain ontological stance on climate change on rural people in sub-Saharan Africa than for government agencies to do the same when dealing with a wealthier, more educated, and less stratified public in Europe. I would argue that post-political theories (if one can refer to them as such) are critical, emancipatory, and anti-authoritarian, and rather than

imposing their ontology on the Global South, they can assist in tracing the violent material and discursive processes underway there that are explicitly Western in their origins. The overlap between post-colonial theory and post-politics is clear here. For example, the silencing of the subaltern as someone unintelligible that Spivak (1988) talks about bears striking resemblance to mechanisms that exclude from governing those who wish to challenge the partition of the sensible in Rancière's work (Dikeç, 2005; Rancière, 2010).

The point I wish to make here is that the post-political condition has slowly made its way into developing countries, most prominently by using adaptation assistance as its conduct. Rather than transplanting the concept arbitrarily to sub-Saharan Africa, its use here is a result of following adaptation as a "travelling concept" (Weisser et al., 2014). More specifically, local people do not tend to think of their social predicaments as 'deficient adaptive capacity,' but they are forced to problematize their lives around climate change and adaptation through interacting with the powerful knowledge centers which promote a certain kind of scientific and evidence-based approaches to conceptualizing and solving adaptation issues. Neither developing countries nor their citizens have been allowed to describe their climate predicaments on their own – this has happened at the international level, through the UNFCCC mechanisms which clearly outline the procedural path to emerging nations' adaptive capacity. Today, it is these predominantly Western conceptions of the threat and the threatened that determine how adaptation is carried out locally, at least as part of the UNFCCC process. Therefore, rather than considering the post-political framework in developing country contexts as an example of ethnocentrism, it is much more appropriate, I posit, to recognize the specific framing of climate change and adaptation that is promoted by Western forces in the Global South as yet another example of cultural and economic imperialism (Harvey, 2003; Said, 2003).

2.6. Research goals and questions

In the introduction, I noted that a relatively small number of researchers have theorized the way climate issues are handled across different scales as explicitly depoliticized (Berglez and Olausson, 2014; Bryant, 2016; Chatterton et al., 2013; Chaturvedi and Doyle, 2015; Goeminne, 2012; Kenis and Lievens, 2014; Kenis and Mathijs, 2014; Kythreotis, 2012; Macgregor, 2014; Swyngedouw, 2013b, 2013a, 2011b, 2010; Williams and Booth, 2013), with even fewer making critical observations of this kind specifically with regards to adaptation to climate change (Nightingale, 2015;

Symons, 2014). However, given the increasing relevance of adaptation to the international community, there has been a rapid growth in the number of localized efforts citing adaptation as an explicit objective, particularly in developing countries (Ford et al., 2015). Societies are to be made more ‘resilient’ or ‘climate-ready’ through a range of diverse approaches that manifest themselves through what development scholars have been familiar with for decades – development projects, in this context often reframed as ‘adaptation projects.’ As this chapter has sought to demonstrate, it is through these concerted interventions that scientific knowledge and techno-managerial practices reach local communities, and as such they become ‘conductors’ of power from distant centers – be it in national or regional capitals, research institutions, development organizations, or donor headquarters – to the spaces of the everyday. Decisions about adaptation – such as what to adapt to and how to do it – are taken both arbitrarily and independently from local contexts, yet they affect the lives, livelihoods, and subjectivities of those who are believed to be in climate peril.

Having outlined the theoretical framework that will guide my analysis in the following chapters, it is now possible to present the overarching research goal of this study, which is to:

analyze how institutional approaches to adaptation to climate change create post-political governance at the local level.

This, as mentioned in the introduction, will be done by using an LDCF-funded adaptation project in São Tomé and Príncipe as a case study, with a particular focus on its encounter with the local community of Liberdade. Despite the growing number of interventions of this kind and the billions of dollars that the international community is planning to spend on them over the next decades, there has been little in-depth, empirical research on their actual effects. That is, I believe, a missed opportunity, particularly to those interested in science and technology studies (STS) and the concepts of travelling knowledge and post-politicization. Adaptation is, in discursive terms, an extremely violent and destructive device because it promises to safeguard what people tend to hold dearest – their lives and livelihoods – from what its proponents describe as an imminent and universal climate cataclysm. One could hardly imagine an example of securitization more powerful and comprehensive than this. The potential for the abuse of power, here understood in the Foucauldian terms as knowledge wielded by those who are deemed expert in climate management (Foucault, 1980), cannot be left

uninterrogated. With these considerations in mind, the main questions that I will seek to address are:

1. How is post-politics manifested in the design and implementation of the adaptation project in question?
2. What are the localized effects of the post-political condition of adaptation governance?
3. Can alternative governance structures and processes be theorized and implemented to render adaptation more co-productive and equitable?

3. Methodology: A multi-sited, institutional quasi-ethnography

This research takes an ethnographic approach to studying adaptation, and can be described as a multi-sited, institutional quasi-ethnography. This chapter will justify the selection of the research design, situate it within the methodological literature, explain how data collection was carried out, and conclude with some reflexive thoughts on my positionality at different stages of the research process.

3.1. Choosing the ethnographic approach

Cloke et al. (2004, p. 169) refer to ethnography as an approach that encompasses a “shamelessly eclectic and methodologically opportunist combination of research methods.” Generally speaking, however, it can be referred to as an organized, qualitative study of groups of people which has its roots in anthropological studies (Murtagh, 2007). The eclectic combination Cloke et al. mention can include a variety of methods, including in-depth interviews, focus groups, participatory mapping, textual analysis, and most importantly “an extended period of participant observation research” (Cloke et al., 2004, pp. 169–170). How long this period of observation should last varies according to different sources. Fetterman (1989) indicates anything between six months and a year as an optimal amount of time in the field depending on the context, while Murtagh (2007) cites authors recommending *at least* 12 months, and ideally two years, of sustained data gathering in the field.

Since ethnography has its roots in the anthropological works of the late 19th and early 20th centuries, its traditional focus was on systematically studying people in culturally and physically distant and often isolated parts of the world, an approach referred to by Hughes et al. as “old ethnography” (2000, p. 2). The 1990s brought about the cultural turn, with “new ethnography” drawing heavily from critical social theory including feminism, post-modernism, post-structuralism, queer theory, anti-racism, and post-colonial theory (Cloke et al., 2004; Crang and Cook, 2007; Gellner and Hirsch, 2001a; Hughes et al., 2000). As a result of the cultural turn, the focus of ethnographic research has moved away from seeking patterns and generalizations to more phenomenological appreciations of heterogeneity, polyphony, and difference, from the supposed objectivism of researchers to their positionality, from the universalism of knowledge to its situatedness, and from fundamentally unequal relationships between ethnographers and their ‘subjects’ to a democratization of relations of power between the researchers and the researched (Fetterman, 1989; Gellner and Hirsch, 2001a;

Hammersley and Atkinson, 2007; Haraway, 1988; Phillips, 2000). This study strongly subscribes to this new ethnographic tradition.

Indeed, the critical insights resulting from the cultural turn are what makes ethnography particularly attractive for the research goals set out earlier. In my case, while it was not necessarily my intention to ‘help’ the people who, based on my literature review, I suspected to be sidelined in, if not outright excluded from, the processes surrounding the governance of adaptation to climate change, I certainly discerned an urgent need for their voice to be heard. This mirrors the broadly held Marxist view that research, unless political, is essentially useless and that it should have the emancipation of those marginalized – materially or discursively – at its center (Cloke et al., 2004; Hammersley and Atkinson, 2007). Relatedly, the ability of ethnographic research to detect and address the unevenness of institutional practices, which may remain concealed to more quantitative studies, was also what pushed me towards employing a stronger ethnographic component into the research design. Heading to Liberdade for a day or two, conducting a number of interviews (let alone surveys), taking a walk around the village, and leaving never to come back seemed like an ineffective if not exploitative approach to adopt, although I recognize that even the best-intentioned ethnographic research is, in the words of Donna Haraway, always “made on the back” of other people (Hughes et al., 2000, p. 39).

The emancipatory potential of the ethnographic approach is incomparable to that of quantitative studies or even interviews. Moreover, interviews and focus groups alone should not be considered sufficient to address “core power issues that impede social change,” and as explained in the previous chapter, I consider adaptation a strictly political process (Winkelman and Halifax, 2007, p. 132). Certain elements, such as structural or institutional marginalization, or even ‘the political,’ may be observable only over time and require extended contact with the people involved (Fetterman, 1989). In other cases, time is needed for establishing highly ephemeral sightings with an acceptable degree of consistency, not to mention eliciting trust that is necessary to obtain information and be ‘let into’ the group under study.

Ethnographic research, in the words of Hedges (cited in Crang and Cook, p. 13):

reveals, and is often undertaken to question, the erroneous neatness of distanced, abstract, theoretical understandings of social, cultural, economic and other processes because societies are always messier than our theories of them.

The same applies to development organizations and local communities – their functioning cannot be predicted in any reliable manner, yet it is imperative to understand how and why certain decisions are taken and what effects they have on the public or on individual members. I wholeheartedly agree with Laura Nader (1972) that it is a question of democracy for people to know how organizations, in this case UNDP and Santomean government agencies, function internally, and that ethnography is the method best suited for the task of delivering this information. In general, then, the skeptical epistemological stance this research adopts towards the alleged positivist neatness of the social world would, in principle, make adopting more quantitative methods an inconsistent if not a contradictory choice. On the other hand, since one of the starting points of the theoretical framework outlined earlier is that techno-managerial standardization leads to broadly conceived disempowerment and undemocratic outcomes, choosing a research method that is capable of revealing the complexity that post-politics seeks to mask seemed all the more logical.

3.1.1. The qualifiers: ‘multi-sited,’ ‘institutional,’ and ‘quasi’

The following section will explain in greater detail the three qualifiers of the ethnographic research design adopted here. These are necessary to both describe and justify the way in which this research proceeded, as well as to outline its major methodological limitations.

Multi-sited ethnographies

Fieldwork took place in very different and not readily comparable contexts. The UNDP internships at the Regional Office in Addis Ababa, Ethiopia, and the São Tomé and Príncipe Country Office would allow me to gain insights into the functioning of the project that would have in most likelihood remained outside my field of vision had I decided to focus exclusively on studying local communities (this was the original focus of my research). The multi-sited design would allow me to ‘follow,’ or more accurately ‘trace,’ the project instead of only witnessing one of its many manifestations, in this case in Liberdade (Marcus, 1995). Inspired by such powerful ethnographies of development as James Ferguson’s (1994) *The Anti-Politics Machine* or David Mosse’s (2005) *Cultivating Development*, I saw a great deal of potential in choosing this research path.

Multi-sited ethnography is not an uncommon approach, although it is a relatively new one (Coleman and Hellermann, 2013; Marcus, 1995). Marcus permanently situated

it within the ethnographic toolkit, observing that “any ethnography of a cultural formation in the world system is also an ethnography of the system, and therefore cannot be understood only in terms of the conventional single-site *mise-en-scene* of ethnographic research” (1995, p. 97). The appeal for geographers of this observation, which recognizes the linkages of meanings, practices, connections, associations, and relationships across different sites and scales, is obvious. Indeed, while studies focused on small and highly isolated communities, such as the *Argonauts of the Western Pacific* by Malinowski, were perfectly viable in the early 20th century, it is now becoming recognized that ethnographies may increasingly need to rely on multiple sites. Otherwise, they would run the risk of failing “to capture crucial connections, associations, and relationships that transcend particular localities,” thus obscuring “crucial dimensions of social and cultural life” (Simpson, 2001, p. 104). Arguably, the globalizing human society is a fertile ground for multi-sited ethnographic research.

Marcus (1995) also notes that in multi-sited studies, the ethnographer establishes a physical presence in different places that are linked logically by the topic under study. This can entail following people, things, metaphors, stories, lives, or even conflicts. One strand of this new methodological trend has come from science and technology studies, where anthropologists “seek to trace the ways in which scientific knowledge travels beyond the boundaries of the laboratory and is rearticulated and reproduced in new settings” (Hine, 2001, p. 72). Since adaptation to climate change tends to be considered by policymakers and development practitioners a highly technical if not a scientific term, the multi-sited nature of this study would allow to deconstruct the mechanisms which transplant such understandings of the concept from Western metropolises to rural contexts in developing countries (Weisser et al., 2014). Thus, conducting fieldwork in multiple settings bound by the thread of the adaptation project would allow to critically evaluate how adaptation travels across space and time, and how it is conceptualized, problematized, and acted upon in different contexts across multiple scales.

Institutional ethnographies

What literature refers to as ‘institutional ethnography’ varies from context to context, and it is possible to identify two basic understandings of the approach. First, institutional ethnography is used interchangeably with organizational ethnography, and denotes those studies that rather than focusing on communities of people (i.e. community studies), tend to be conducted in communities of practice, or various kinds of organizations (Gellner and Hirsch, 2001a; Hammersley and Atkinson, 2007; Watson,

1999). This includes research undertaken within development agencies, prisons, hospitals, schools, or private businesses. The other conceptualization of institutional ethnography, although somewhat related, takes a more constructivist approach. Rather than a particular selection of research subjects (organizations or organized groups of people with a specific purpose), what sets it apart from other kinds of ethnography is its interrogation of the social institutions that govern people's behaviors, beliefs, and actions, as well as an analytical focus on the resulting processes of subjugation and subordination (Billo and Mountz, 2016). It is a critical and emancipatory method forming part of the "embodied feminist approach," the emergence of which is credited to Dorothy Smith (Billo and Mountz, 2016, p. 2). While a significant part of fieldwork for this study was indeed conducted at two different offices of a development organization, which falls within the first definition of institutional ethnography, it is this other, more critical approach to the method that has guided my work.

Institutional ethnography involves a description of an experience, which then proceeds to identifying and investigating the institutional processes that determine this experience (Billo and Mountz, 2016). In the case of Smith's research, it was the gendered understandings of contemporary society by men and women that were under investigation (Smith, 2005). In this study, it is the political exclusion of local people from adaptation decisions and benefits through the institutional practices of both UNDP and the national government of São Tomé and Príncipe. Importantly, Billo and Mountz (2016) note that the potential for geographers to contribute to this genre of ethnography remains unfulfilled, since institutions are not uniform across time and space, as will be demonstrated through the diversity of contexts UNDP employees operate in. Geographers place much attention on the spatial aspects of culture, recognizing that it may be "simultaneously local, supralocal, translocal and planetary" (Comaroff and Comaroff, 2003, p. 151). Making these connections with regards to adaptation to climate change is of paramount importance due to its global reach and potentially significant social, economic, and political implications.

Quasi-ethnographies

Rather than a traditional ethnography, a quasi-ethnography, or a qualitative study that employs ethnographic methods, is a more academically-honest description of this study. A quasi-ethnography is a term employed by certain anthropologists to denote their works' departure from normative practices of ethnography (Reed, 2006). This deviation from the ethnographic canon is due to a number of obstacles encountered

during the research process, both anticipated and unanticipated, which can considerably limit the legitimacy of the final research product as a ‘genuine’ ethnography. Such obstacles, for example, include access, language, and timescale, which will be addressed here in sequence with regards to this study.

Ethnographers have written much about the issue of access during fieldwork, which may be restricted for a variety of reasons, both formal and informal (Cragg and Cook, 2007; Owen, 1998; Reed, 2006). In my case, access – to the extent allowing the study to proceed without any major problems – was generally not an issue, with some caveats. In Liberdade, I was free to walk around anywhere (short of, of course, invading people’s privacy in their homes) and talk to anyone I wished. I was introduced to the community by a UNDP employee intimately familiar with the village due to a personal connection they had with Liberdade, after which they ‘passed the baton’ to a kind young man, Fabio, who would act as my gatekeeper and guide to the village over the next months. The opportunity to conduct research at the Regional Office and the Country Office in São Tomé and Príncipe was actually offered to me by a high-ranking employee of the former due to his interest in my work, overcoming the sometimes insurmountable hurdle of formal access to international development organizations (Awasthy, 2015). Once in, the institutional environment at the UNDP Country Office in São Tomé and Príncipe was relatively relaxed and during my internship there by no means did I feel tethered to my desk.

However, at the Regional Office, I was assigned a desk in a somewhat geographically remote office. I was visually removed from the working spaces of high-ranking adaptation staff, the practices and customs of which I was most interested in. While the reason for this was presented as insufficient space, it is also possible that I was delegated to a peripheral office due to my low seniority and, possibly, unwillingness of the senior cohort to have me around, constantly asking questions or tacitly scrutinizing their daily operations. More significantly, because I arrived in São Tomé and Príncipe following an invitation by UNDP and worked for the organization in the capacity of intern, I could not count on the same kind of access to the government side of the project. Therefore, the perspectives from the Ministry or other national institutions do not feature very strongly in this study.

Language is another limitation that severely affects the quality of ethnographic data, particularly in the context of research taken in completely extraneous linguistic contexts. Conducting ethnographic research in a language the researcher is not fluent in or at least comfortable using is sometimes outright discouraged. Moreover, even if

certain preparations are made before fieldwork starts, such as learning the language at home (as in my case) or by taking regular courses, there is no guarantee that the variety of language dominant in the research location will be anything like the most likely standardized version studied at home. Crang and Cook (2007) talk about one of the author's initial reluctance to engage in personal conversations with papaya farmers in Jamaica, and this is precisely what happened to me during the first two weeks of my visits to Liberdade. During that time, I preferred to limit my data collection to observing the residents rather than engaging in conversations with them (with the exception of Fabio).⁶ However, my background in Italian and Spanish, as well as my commitment to learning Portuguese in the evenings, helped me immensely in communicating with the locals, and by the time I left, I could sustain more or less regular conversations with those members of the community who were both able and willing to comfortably switch between Cabo-Verdean Creole (the most widely spoken language in the village) and Portuguese (the official language of primary and secondary instruction in the country). However, following conversations among the residents, which happened almost exclusively in Creole, was close to impossible despite the language having lexically much in common with Portuguese. I can only credit Fabio's inexhaustible amounts of patience for the lack of awkward moments my poor Portuguese would easily elicit in someone any less understanding than him. In fact, during my first day in Liberdade, I once overheard the young men concisely referring to how I spoke Portuguese as *minimalmente*, which was, beyond a doubt, fair.

The interviews I later conducted in the village posed another linguistic issue. These were carried out with the help of two junior UNDP employees, Inês and Valerio, who would travel with me to Liberdade towards the end of my stay in the country and patiently interpret the questions and responses between Portuguese and Cabo-Verdean Creole (or more frequently, a medley of the two) and English. Neither of them, it should be noted, is a native English speaker. And while by that time I could understand a lot of what the interviewees were saying and was able to make notes about the things that Inês and Valerio did not manage or forgot to translate, the depth of these interviews should not be equated with those conducted with participants fluent in English.

There were also certain language barriers at UNDP offices. While communication, both oral and written, among the top adaptation employees at the Regional Office in Addis Ababa happens exclusively in English, there was the issue of

⁶ The one time during this period when I mustered the courage to start a conversation with a man weaving a basket in the center of the village, other residents quickly intervened by explaining the man was deaf.

my Ethiopian office mates who spoke only Amharic among each other, making it impossible for me to even understand the broad context of their conversations. Nevertheless, English was the *lingua franca* of the Regional Office and of most of its documents, which was in sharp contrast to the situation I found at the UNDP Country Office in São Tomé and Príncipe:

My biggest concern here is language. I didn't realize English was not the main foreign language learned and spoken here (French is). What I definitely didn't realize is that it also applies to UNDP staff. They usually use French and Portuguese to communicate in the office, and I was doing my best to understand and respond to what the driver was saying to me earlier in the car.

[Field notes, 22 February 2016]

By that time, I had completely abandoned learning French in favor of Portuguese (after my placement at the Regional Office in Ethiopia, I was initially supposed to travel to Madagascar, but the plan was changed to São Tomé and Príncipe around three months before departure due to a delay in the Malagasy project that I hoped to study). I did not anticipate that some meetings in the Santomean UNDP office would be conducted in French. However, my aural understanding of Portuguese and French improved exponentially during my time in the country. In fact, towards the end of fieldwork, I would enter my co-workers' offices and ask them questions in their native language. I also started writing e-mails in Portuguese, both to other UNDP employees and prospective interviewees in the country (after having them kindly proof-read by Valerio). Another time, two members of the Regional Office staff I had met during my internship there came to São Tomé on mission, and I found myself guiding them around town, talking to locals, and ordering food in Portuguese, which was probably around the time I started feeling more comfortable using the language in daily situations. In Liberdade and the Country Office alike, I could engage in more relaxed and complex conversations, with my effort to learn and speak Portuguese meeting with a growing appreciation by the participants in both research settings. Thus, while I never became fluent in Portuguese, the quality of my data grew steadily during my stay in São Tomé and Príncipe. As such, and somewhat paradoxically, my limited command of Portuguese was as much a limit to conducting research as my subsequent improvement witnessed in real time by the participants was an advantage, as I believe it resulted in greater trust and stronger personal connections.

Next to language, the timescale of my research is what I believe is most responsible for its *quasi*-ethnographic nature, and should also be considered the main limitation of this study. Murtagh (2007) talks about quasi-ethnography as an ethnographic method that allows a limited amount of time spent with the participants. In my case, these considerations are extremely important. The multi-sited nature of my research meant that it was possible to spend only between three and four months in each location (Addis Ababa and São Tomé and Príncipe). I made a decision to capitalize on the opportunity to implement ethnographic methods at UNDP, which came at the price of spending less time in the community. The fieldwork period had to be long enough to obtain a sufficient amount of data without at the same time jeopardizing the prospect of finishing the doctoral degree in three years. This, certainly, had tangible consequences. With regards to the Regional and Country Offices, not being able to observe the institutional procedures for at least a year meant that my data includes only a snapshot rather than a comprehensive account of the internal world of UNDP. The same can be said about Liberdade, where the work of farmers is – or until recently was – regular from year to year and dictated by the calendar of dry and rainy seasons. I was there between February and May, the period of the first rains and planting the crops. The length of the data collection period in each of these locations is arguably the most important limiting factor for considering this study a proper ethnography, and it must be reiterated that I wish to make no such claim for it here.

3.2. Research process

The following section will describe the research process in greater detail. It is divided into four parts: pre-fieldwork, first stage of fieldwork in Ethiopia, second stage of fieldwork in São Tomé and Príncipe, and post-fieldwork (which relates to data processing and analysis). In the interest of brevity and to avoid repetition, what needs to be mentioned here is that document analysis occurred all throughout these four stages as documents became available. These pertained to the various adaptation projects by UNDP, including the case study project in São Tomé and Príncipe, as well as government sources and other publicly available information on the country, the district of Lobata, and the community of Liberdade.

3.2.1. Pre-fieldwork: Case study selection and ethics procedures

In order to successfully address the research questions set out above, it was necessary to select a development project with a strong adaptation component, and

preferably one with promoting adaptation as its *raison d'être*. The project would also be ideally located in a country seen as highly vulnerable to climate change. The Least Developed Countries Fund (LDCF) was identified as a potential source for such projects. In addition, the Fund is administered by the GEF as part of the UNFCCC financial mechanism, and since the funds are public (they are contributed by national governments), large amounts of project-related data are readily available.

What followed was a desk analysis of project data obtained through the GEF database (GEF, 2017). A total of 92 projects from 35 countries financed by LDCF in sub-Saharan Africa were identified. The search was narrowed to this part of the world as it satisfied the criteria mentioned above as well as because I have a personal interest in the region (Niang et al., 2014; Stillings, 2014). Only rural projects were considered for similar reasons. Out of the 92 projects, 43 were shortlisted through a multi-criteria analysis (MCA) and listed in the order of preference from one (high) to four (low) based on three criteria. First, the project had to contain a sizeable component that included activities at the community level. Therefore, initiatives centered solely on strengthening the institutional capacity of governmental agencies or tasked with creating early climate warning systems were excluded. Second, the timeline of the project would have to coincide with the timeline I had assigned for fieldwork. Ideally, the project would launch its activities in my presence. In light of this, projects in very early stages of design, on the one hand, and completed ones, on the other, were excluded. This stage also entailed direct communication with the managers responsible for the projects in order to confirm timelines, which in many cases were not being updated in a timely fashion in the online GEF database. Third, due to University regulations on fieldwork, projects in countries to which the Foreign and Commonwealth Office (FCO) advised against all or all but non-essential travel were also excluded. As already mentioned, this analysis resulted in a short list of 43 projects from 26 countries (see Appendix 1). As it can be seen, the originally-selected project in Madagascar as well as the ultimately-chosen project in São Tomé and Príncipe had been both assigned the highest preference as a result of the MCA.

Fieldwork was approved by one of the University Research Ethics Committees (UREC). Each participant was approached in person, via e-mail, or by phone by myself or other study participants (through snowball sampling), and provided with a Project Information Sheet (PIS) and a Consent Form. Multiple versions of these documents were produced in both English and Portuguese, with their styles and contents tailored to the anticipated topics and the expected education level of the participant (see Appendix

6 for examples). A small number of participants preferred an oral explanation of the information contained in the documents. Some interviewees requested and obtained interview questions in advance. The identity of all research participants has been ensured through data anonymization, and all participants' names as well as the name of the selected local community have been changed.

3.2.2. First stage of fieldwork: Ethiopia

The Gantt chart in Figure 2 represents the temporal progression of the methods applied in this study during both stages of fieldwork, which included ethnographic research methods, and specifically participant observation and semi-structured interviews. The first stage of fieldwork took place under the banner of a part-time internship at the UNDP Regional Service Center for Africa (Regional Office) located in Addis Ababa, Ethiopia. As part of this post, I would work specifically on climate change adaptation. As already mentioned, this opportunity presented itself as a result of cold-emailing project managers from different development organizations with LDCF projects in their portfolios. This fieldwork stage lasted from mid-September 2015 until mid-January 2016. I undertook the internship in the first days of October 2015. The daily routine would involve arriving in the office in the late morning, having lunch in the canteen upstairs with other staff members, and leaving in the late afternoon or in the evening.

During my stay in the office, I employed a range of different participant observation techniques but predominantly limited myself to passive or moderate

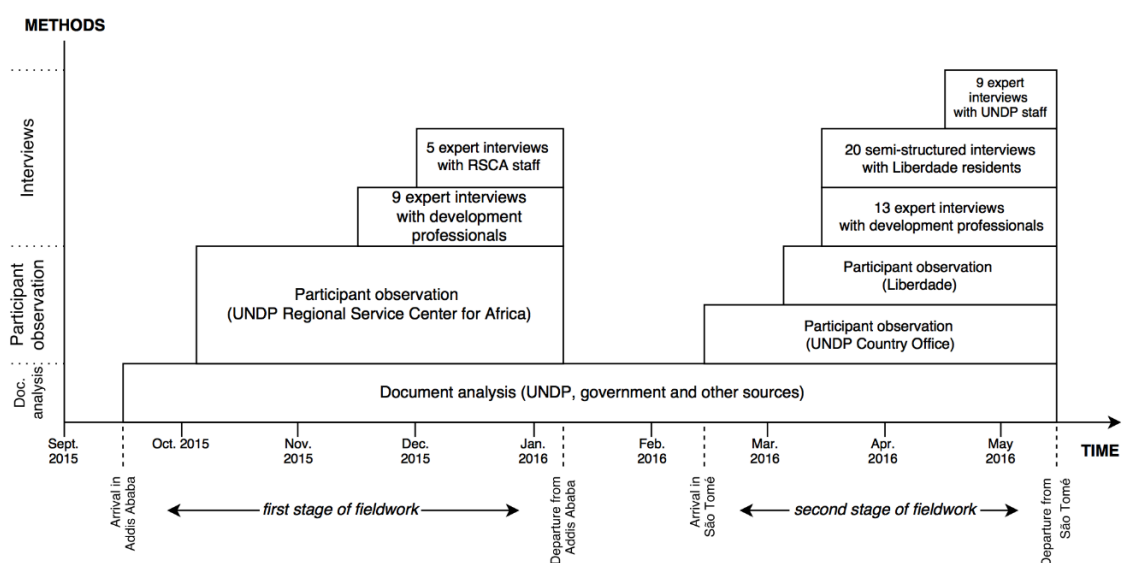


Figure 2. Principal methods implemented during both stages of fieldwork in Ethiopia and São Tomé and Príncipe.

participation (DeWalt and DeWalt, 2011). This included engaging in informal conversations with various staff members, particularly over lunch, and participating in training sessions, such as those organized for the delegates of UNDP country offices in Africa in October 2015. After hours, I would also engage in a number of activities with the staff, who form a more or less cohesive community of (mostly) Western expats. This included several occasions of soccer practice in a nearby field, meeting for afternoon tea, brunch, or dinner in restaurants or private homes, or attending a housewarming party. All these occasions were invaluable for getting to know the staff members both professionally and personally. At the same time, however, I did not have a ‘guide’ to the office throughout my stay. Mark – the senior adaptation manager who had invited me to undertake the internship in Addis Ababa – was kind enough to introduce me personally to most of the staff members and sent out an e-mail explaining my presence there. However, his busy schedule did not permit regular personal contact with me and, in fact, my internship coincided with an exceptionally full field mission schedule which resulted in his absence from the office for almost half of my stay in Addis.

My observation of UNDP staff was more active than passive in one particular respect. During my internship, I was tasked with conducting a study on the quality of participation in various UNDP adaptation projects across the continent. This was justified to me by the organization’s intention to capitalize on my “expertise in participation,” which is how my skills were interpreted by the staff after I explained my doctoral research to them. Cognizant of the serious limitations to local involvement in development projects, Mark suggested a comparative study that would look for good practices and lessons learned to be replicated by future interventions. By undertaking the participation study, I gained access to a variety of documents not available to the public, and was asked to design a participation assessment framework that could be applied in different contexts. I was even sent on a field mission to Asosa in western Ethiopia where I conducted interviews and focus groups with members of a local community participating in a nationwide, UNDP-led adaptation project. The obvious limitations of this (techno-managerial) approach to solving participation issues aside, the point here is that through my work on this study, I could cooperate with other staff members on a project and observe the institutional procedures and customs that surrounded it.

Apart from participant observation, I conducted a limited number of semi-structured, expert interviews (Dexter, 2006; Sovacool et al., 2012a) with those staff members whose area of expertise and scope of work included adaptation to climate

change (selective sampling was used to identify the interviewees). This, as it turned out, was a very narrow group of five people. Each of these interviews had two main themes: the relationship between climate change, adaptation, and development, as well as the role of development organizations, and particularly UNDP, in facilitating adaptation to climate change in rural Africa. All these interviews took place during regular working hours at the UNDP Regional Office or, in one case, over Skype (as the interviewee is not stationed in Addis Ababa on a regular basis). In addition to these, I also conducted nine semi-structured, expert interviews with representatives of the development community in Addis Ababa familiar with the challenges that climate change poses to Ethiopia or sub-Saharan Africa, in general. These were employees of development agencies, government institutions, and NGOs (see Appendix 2). Most interviewees were selected through selective sampling from a list of development organizations present in Addis Ababa maintained by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA, 2014) and through Internet search, with a small number identified through snowball sampling. The topics of these interviews were very similar to those conducted with UNDP staff, but put less stress on UNDP in favor of the participants' parent organizations. These interviews were all conducted at the workplace of each interviewee, with the exception of one which took place at the Regional Office and one conducted over Skype (as the interviewee is normally based in Entebbe, Uganda). All the interviews during this stage of fieldwork were audio-recorded and conducted in English, so no interpreter was necessary.

3.2.3. Second stage of fieldwork: São Tomé and Príncipe

The second stage of fieldwork lasted from mid-February to mid-May 2016, during which I interned with the UNDP Country Office in São Tomé and Príncipe responsible for the implementation of the adaptation project in partnership with the Santomean Ministry of Agriculture and Rural Development (MoARD). While it was technically a separate internship, in reality, it was an extension of my appointment in Ethiopia, as my managers in both locations were aware of the multi-sited nature of my research. However, my stay in São Tomé and Príncipe was more methodologically 'intensive,' due both to the linguistic challenges outlined above and the fact that I would conduct my research simultaneously in two locations: the Country Office and Liberdade, a local community which would be selected as the suitable research site shortly after my arrival. I also planned to conduct additional interviews in the meantime.

The timing of this stage of fieldwork should be considered one of the most serious limitations of the study when compared to the original research design. It was my intention to be present in the selected local community during the rollout of project activities to observe the encounter between the initiative and local people. In reality, no activities were ever carried out during my stay in São Tomé and Príncipe due to a delay in project implementation. When I arrived in the country, Maurice – the head of the unit and my direct supervisor – revealed to me the project was still in the ‘diagnostic’ phase, which involved UNDP and relevant government agencies going back to the communities and discussing the details of project implementation with their residents. Luckily, one of such diagnostic events was to take place shortly in Liberdade. I managed to visit the village only several times before the consultations actually took place which, to a certain extent, was enough for the residents not to identify me strictly with UNDP or the MoARD.

UNDP Country Office

With regards to participant observation conducted at the UNDP Country Office, it was more extensive than the monotonous, desk-centered routine I had in Addis Ababa. In addition to holding informal conversations with staff members, which were more limited in scope and frequency due to language barriers, my time at the Country Office involved participation in regular unit meetings, and – which was particularly useful from the standpoint of my work – occasional field trips and project consultations in the country. The field trips were organized for different purposes and sometimes had nothing to do with the adaptation project. In either case, I was eager to come along since it would allow me to shadow the staff during their interactions with local communities. The trips included check-ups of the early warning system infrastructure located in the countryside (part of another UNDP project), follow-up inspections of former project sites, surveys of diseases in the countryside, and project consultation events, including the already mentioned event in Liberdade. Importantly, some of these trips were surprise visits to events organized by the Ministry – UNDP’s implementation partner – with the goal of scrutinizing their quality.

During my time at the Country Office, I felt generally more involved in the work of UNDP than in Addis Ababa. I was asked to provide inputs on certain plans or decisions related to a range of office operations, both during staff meetings and outside them. This team similarly wanted to capitalize on my ‘expertise’ in participation, and there was talk about me designing a survey on how to select the best activities and

beneficiaries for a different project (a plan which never materialized). Unlike in Addis Ababa, I was fortunate enough this time to have a permanent gatekeeper to the office – Valerio, who was also interning there at the time. He helped me understand the institutional structure of the unit and proved to be a very patient and entertaining interlocutor throughout my entire stay. I also spent a limited amount of time with staff members outside work. For example, I participated in a soccer tournament organized for all the UN employees in the country, and went on a couple of trips along the coast and into the interior of the island with Valerio and his friends on the weekends. However, unlike in Addis Ababa, only a handful of top-ranking employees in the Country Office are foreigners, and as a result there is no local, tight-knit ‘expat’ community of the kind I occasionally made part of in Ethiopia.

The research methods employed in the office also involved nine semi-structured, expert interviews with project staff or individuals formerly involved in the project. These interviews took place at the Country Office during regular working hours, and participants ranged from the top UNDP official in the country to one of the interns. These individuals were selected through selective sampling based on their self-declared familiarity with the adaptation project, and the selection of interview questions was contingent on each participant’s position within the organization and the extent of their knowledge about the initiative. Questions pertained to topics such as climate impacts in São Tomé and Príncipe, the role of UNDP in facilitating adaptation in the country, the vision behind and the functioning of the adaptation project, and specific questions about the district of Lobata and the community of Liberdade. Moreover, an additional 13 interviews were conducted with representatives of development organizations, government agencies, and NGOs present in the country, with topics similar to those described above (except for the explicit focus on UNDP, although its presence in the small country led many participants to discussing UNDP’s work in one way or another). Interviewees were identified through selective and snowball sampling (through Internet search and participants’ suggestions, respectively). As part of the latter sampling technique, Maurice – who is a well-connected professional within the small development community in São Tomé and Príncipe – suggested several individuals who he believed could provide valuable insights for my research. Out of the above 22 interviews with UNDP staff and other development professionals on the island, 13 were conducted in English, seven in Portuguese, one in French, and one in Italian. The interviews held in Portuguese and French were interpreted by Valerio and Nicole, a mid-level UNDP employee, while the interview conducted with the Italian-speaking

interviewee did not require an interpreter. In one case, the interviewee preferred not to have their voice recorded, so data collection was limited to taking notes. All the interviews were conducted at each interviewee's workplace, with the exception of two non-UNDP employees who were interviewed at the Country Office and one who was interviewed at a local hotel.

Liberdade

Conducting research at the village level was an entirely different experience to that in the office. Maurice suggested selecting Liberdade, one of the least distant among the 30 villages participating in the adaptation project, as the locality I should regularly visit during my stay in São Tomé and Príncipe. Liberdade was not only a convenient (it would take me less than an hour to get there from the office) but also a highly interesting and relevant choice. It is located in Lobata – the district considered the most vulnerable to climate impacts in the country due to decreased precipitation and the locally progressing savannization (see: Chapter 4). Moreover, Maurice mentioned the community had an 'issue' with its current president, which was affecting how the village was governed and how it interacted as a whole with outside agents. This sounded extremely interesting and relevant, as I could potentially observe how internal conflict affects both the adaptive choices of local residents and the community's participation in the project.

The daily routine in São Tomé would see me arrive in the office in the morning, spend up to four hours there, after which I would go change, have lunch in one of the local restaurants, and head to Liberdade. My visits to the community varied from roughly a couple to six hours, but would normally average between two and three. There were certain days when a lot was happening in the village (e.g. events organized by development organizations) while others would render my visits, which mostly took place on weekday afternoons, distinctly uneventful, if still instructive. On certain days, Fabio would set the agenda, sometimes showing me different parts of Liberdade and introducing me to his family and friends, sometimes just hanging out and watching TV at his cousin's home (it being the reason why the first time I watched Disney's *Tarzan* was in Portuguese). Other times, I would suggest going somewhere or seeing something specific, for instance when I asked him to show me what remains of the system of irrigation channels within community lands. Other times still, Fabio was nowhere to be found (since, for example, he was working in his own or someone else's field), so I was happy to spend time with other residents instead. On one occasion, I was even talked

into playing soccer with Fabio and his friends in the *quintal*. On one of my last days in the country, I participated in a village dance and spent the night in Liberdade, with Fabio kindly making his room available to me while he stayed at his cousin's.

Throughout these various activities, in which I was involved as a passive observer or an active participant, it was of paramount importance to abstain from asking overly blatant questions about climate change, local inequalities, and development projects which, although important from the standpoint of my research, would likely make my conversations with the residents seem like informal interrogations, resembling their what I saw as shallow, unilateral interactions with various development organizations. To counter this issue, interviews would allow me to, I hoped, cross that barrier without damaging my reputation as the “community son” (see below), as participants are more prepared for being asked questions of this kind in a more formal interview setting. To maintain gender parity, I decided to interview ten men and ten women who resided in Liberdade on a daily basis. Sampling in this case was rather unorthodox. I asked Fabio to suggest a list of 20 residents who represented different livelihood circumstances (landowners, the landless, farmers, fishermen, market sellers, students, laborers, the elderly, adults, young adults, and so on). He had no trouble understanding that I was looking for a sample of residents as representative of Liberdade as it was possible (which was of course defined by his conception of representativeness). It was Fabio who contacted the participants and explained to them the purpose of the interview and the scope of questions that would be asked. These included three major themes: the participant's life and livelihood in the community, climate change and droughts, and the UNDP adaptation project. The interview scripts for women also included questions pertaining to gender disparities in the village. All these interviews but one⁷ were interpreted from Portuguese and Cabo-Verdean Creole to English by Valerio and Inês. While the goal was to have Inês interpret all the conversations with women, allowing them to speak with a research team comprising both genders,⁸ this was only possible in eight out of ten cases. All interviews took place in each interviewee's home, with the exception of four, which were conducted in Fabio's room. All conversations were recorded.

It should be noted here that, following Patton (2002), the pre-designed scripts for these as well as previous interviews were relatively generic, allowing me to adjust them

⁷ At the beginning of one of these interviews, Valerio had to leave due to a family emergency. I conducted the rest of the conversation in Portuguese and translated the transcript upon my return to Europe.

⁸ The impacts of gender disparities on data collection is explained in greater detail below.

after having spent sufficient time in each research location. For example, interviews with Liberdade residents included questions on the leadership crisis in the community, a topic that was impossible to anticipate before the actual selection of the village as the research site. This also explains why all the interviews were conducted towards the end of my stay in each research location (see Figure 2).

In addition, a short exercise in participatory mapping was conducted in the village, where three male residents intimately familiar with the local irrigation network charted the alignment of the still working channels onto an aerial image of Liberdade (see Figure 4 in Chapter 4). This allowed me to gain a more spatial understanding of what I suspected was the residents' differential access to irrigation, a theme discussed later in the thesis.

3.2.4. Post-fieldwork: Data processing and analysis

Data processing included the transcription of all 56 interviews using the Express Scribe Pro software (version 5.78). This was done without the involvement of third parties. In the case of the interviews conducted in Portuguese and French, only the parts interpreted into English were transcribed. Following transcription, interview data, field notes, as well as any relevant documents were uploaded to NVIVO Pro (version 11.1.0.411) software for analysis.

The study adopted an applied thematic analysis approach, which aims to increase the consistency and transparency of qualitative data processing and analysis, with the ultimate goal of increasing internal validity (Guest et al., 2012). More specifically, data analysis was guided by a mixed inductive-deductive approach, an increasingly popular method in qualitative research, which involves defining the conceptual framework before fieldwork without excessively rigid boundaries (Guest et al., 2012). Using this specific analytical strategy, which is also referred to as explanatory-conceptual, the researcher is guided by a selected theory which provides the 'scaffolding' for future analysis, while at the same time paying careful attention to potentially relevant themes that may not have been anticipated before the beginning of fieldwork. Analysis started with the identification of general themes through an exploratory reading of data. Following the identification of these themes, codes were developed. It is important to note that the difference between themes and codes is rather subtle but, in general, the former are broader in their definition and can include multiple instances of the latter (Guest et al., 2012). Codes were identified through repetitive, in-depth reading of data (interview transcripts, field notes, and documents) as well as

through other, complementary approaches to developing codes such as the KWIC (key-word-in-context) approach, text segmentation, word queries, and graphic representation of key word frequency (Boyatzis, 1998; Guest et al., 2012).

Theory-driven coding (Boyatzis, 1998) was carried out based on the literature outlined in the previous chapter and on the resulting interview questions. Examples of the resulting structural codes included ‘depoliticization,’ ‘motivations for adaptation,’ ‘adaptation success to-date,’ and ‘adaptation vs. development.’ In addition, theory-driven codes were complemented through the inductive analytical component, which involved searching the data for other consistencies in field notes, transcripts, and documents that were not captured by structural codes. Examples include codes such as ‘dependency,’ ‘Orientalism,’ ‘indigenous knowledge,’ and ‘communitarianism.’

In order to increase the validity of data, triangulation was adopted in multiple instances between different data sources. For example, particular attention was paid to the depictions of the leadership conflict in Liberdade by various community residents and project staff members to ensure data did not contain factually incorrect information or was not overly biased in favor of a specific point of view. Another example includes narratives about the current climate impacts in the country as well as community experiences of participation in the adaptation project. To demonstrate the diversity of data, the following empirical chapters make use of ‘negative cases’ (Guest et al., 2012). This entails providing accounts of dissenting views, as in the case of experts’ opinions on the threats posed by climate change, and Liberdade president’s personal (and isolated) opinion on the roots of the community’s major problems. For the same purpose, and to better convey the voice of Liberdade residents, the following empirical chapters seek to make heavy use of quotes.

3.3. Reflecting on the research design and process

Arguably, one of the most significant contributions of the cultural turn in geography and of the advance of critical theory approaches in social sciences in general is the stress on the positionality of researchers, and the situatedness and intersubjectivity of knowledge (Cloke et al., 2004; Hughes et al., 2000; Phillips, 2000). Over the last decades, scholars of different academic backgrounds have attempted to think about why and how they do their research, a generally positive trend that seeks to counter the arguably naïve epistemological assumption that a distant and detached observer is capable of reaching a state of pure objectivity. However, Harvey (1993) cautions against what he calls “vulgar” conceptions of positionality which amount to auto-biographic

stories that explain the ways in which the researcher sees and interprets the world. This is done, he suggests, “either to enhance the supposed authenticity and moral authority of one’s own accounts” or, conversely, “to deny the veracity of other accounts” (Harvey, 1993, pp. 57–58). Cognizant of these considerations and familiar with the kind of work Harvey is referring to, in this section I will seek to go beyond my positionality as a white, gay, European male, and to provide a more nuanced and comprehensive reflection on my work, while at the same time trying to avoid the trap of solipsism (Shore, 1999). In line with the recommendations of other critical scholars, I will expand this section temporally to periods before and after fieldwork (Hughes et al., 2000).

In terms of my personal capabilities to actually conduct a study that would make heavy use of ethnographic methods, these were not very extensive. Here, I am referring both to participant observation and interviewing. What certainly did not help in my preparations was the “conspiracy of fieldwork” (Shore, 1999, p. 28). This refers to how senior researchers and authors of qualitative research manuals enshroud this stage of research in an aura of mystery and treat it as a sort of rite of passage for their junior colleagues. Aside from generic lists of what to keep in mind and what not to do under any circumstances (if such lists can be found, at all), textbooks rarely talk about how to do ethnography. It is thus important to recognize that this study is the product of my first attempt at the ethnographic method. At the same time, Forsythe (1999) is highly skeptical of the quality of the work of scholars who have not been trained in conducting ethnographies. While referring to them as “neo-ethnographers,” she argues that their research often fails to manifest the key principles of the method, including the ability to discern behavioral and organizational patterns in the field, treating what people say as data rather than results, and ensuring methodological appropriateness, procedure, and validity, in general (Forsythe, 1999). While her arguments were lodged against researchers in medical information science, they apply to anyone unfamiliar with ethnographic methods.

What also requires consideration is the nature of my internship with UNDP. During the first conversation I had with the staff while still in Manchester, the first question I had to answer was on the kind of the reputational risk to which the organization would subject itself by allowing me and my research inside. As Mosse (2001a, p. 177) argues, “ethnographic work runs against organizational needs for simplicity and to reduce complexity,” and UNDP managers seemed aware of it. My goal of critically analyzing the institutional practices and the production and transmission of knowledge within the organization clearly ran against organizational

interests. However, the perceived utility of my ‘expertise’ in participation made me a valuable (and free) resource to capitalize on in UNDP’s quest for higher transparency and local participation. Clearly, making itself vulnerable to my presence was a price the organization was willing to pay. Thus, the participation study mentioned earlier, which I designed at the request of the adaptation managers in Addis Ababa, was to constitute a tangible, operationalizable benefit of my internship for UNDP. However, as I unveiled the deeply qualitative approach that I was going to implement, and combined with the managers’ extremely busy schedules, their interest in the study slowly withered. The project is, as of the time of writing, a work in progress and will be finalized after the submission of this thesis.

With regards to my relationship with the Liberdade residents, I did not aim to – contrary to the older anthropological traditions (Watson, 1999) – adopt a naturalistic approach by entrenching myself in the position of an objective outsider (Hammersley and Atkinson, 2007). In general, my relationship with local residents was very informal, amiable, and trouble-free. This is not to say that everyone in the community appreciated my presence to the same degree, but collectively, I was made feel very welcome and not once did I encounter a sign of hostility. The harshest treatment I would receive, on a very rare occasion, was simple indifference or being called a *branco* (‘white man’) by local children. In general, Liberdade residents grew accustomed to my visits, and with time my arrivals became decidedly a non-event. I worked hard to remain well-mannered and inquisitive at the same time, an effort that was rewarded by one of the village elders who:

praised me for being so respectful and polite. Apparently the community really appreciates my good manners, which made me feel really good. I think he referred to me as one of the community sons. He also said we’re all equal no matter who we are and where we’re from. This is exactly the kind of stuff that I wanted to hear from a resident after a while.

[Field notes, 15 March 2016]

More specifically, however, I turned out to be “adopted,” in Maurice’s words, by the loosely defined group of Liberdade’s young adult men. This was largely because Fabio was their unofficial leader. At the time of my visits, this was the most organized social group in the village, with its members actually engaging in collective activities (a rare occurrence in Liberdade, as will be discussed later), such as occasionally cutting the grass in the central quad of the community (*quintal*), allowing the group to use it

regularly as a soccer field. This arrangement was fortuitous, as I wanted to avoid aligning myself with village elites, in this case the president and his allies, given the leadership crisis and the ‘bad blood’ between them and the rest of the community (Fetterman, 1989). This, as it turned out, was the right call to make. The interviews with the community members, and various informal conversations I had had with them earlier, revealed extremely high levels of distrust most participants felt towards the village leader. His isolation from the community was almost absolute, and being associated with him would have almost certainly put my data collection in jeopardy. On the other hand, during the interview with the president himself, he did not seem to be affected by my informal affiliation with the young men and described at length what he thought about the entire leadership situation in Liberdade without any discernible reservations.

Moreover, Crang and Cook (2007) talk about the multiplicity of identities that both the ethnographer and the people they study adopt throughout the research process. Relatedly, Hughes et al. (2000, p. 15) note that the researcher is often compelled to mold their identity in order to create more “meaningful spaces of interaction.” This certainly was the case when, faced with frequent questions from Liberdade residents about whether I had a girlfriend (*uma namorada*), I had no real choice than to say I did not because my work consumed all of my time. I did not want to jeopardize my research by revealing my sexual identity to them or admitting that I had a male partner, even though São Tomé and Príncipe is among the most LGBT-friendly – or perhaps more accurately least ‘LGBT-hostile’ – countries in Africa (Carroll, 2016). In addition, I often underlined my roles as a student and an intern, which allowed me to represent myself as a relatively powerless figure in the enormous development machine that UNDP is. This also helped me justify declining offers to enter clientelist relationships with several residents of Liberdade mentioned below.

The community members also seemed to adopt a more benign and ‘diplomatic’ attitude towards me than towards each other. They never raised their voice in their conversations with me, as was often the case in their personal discussions, particularly those on community and national politics. They often referred to me as a guest. More importantly, however, it was my identity as a man rather than a foreign visitor with a poor command of Portuguese that severely affected my contacts with local women. As I will discuss later, social relations in Liberdade are deeply gendered, with men and women having rather rigidly defined customs and routines. The end result of this is that the bulk of my field notes contain information provided to me by the male residents of

Liberdade. This was somewhat rectified through the interviews with women, which, nevertheless, were usually much shorter and less detailed than the conversations with their male counterparts due to the aforementioned cultural factors and, consequently, a lower level of trust towards me on the part of women. That said, I would not want to overstress the cultural differences between myself and the residents of Liberdade. As an African Creole society, Santomeans tend to harbor complex identities that have been shaped by a number of cultures, including Portugal – the former European metropole who ruled the archipelago for over 500 years.

My positionality in UNDP offices was also rather complex. Constantly, I had to negotiate my identity as a critical researcher and an employee or, more appropriately, a consultant (the title which, in fact, featured on my UNDP badge in São Tomé). This is in line with Mosse's (2001a) zero-sum approach to managing one's identity in an organizational setting, which is either geared towards the more critical and externally-oriented analytical objectives (my PhD research) or, on the other hand, process research, which engages with the organization to produce information used to facilitate agreements or validate policy changes (the participation study). Indeed, my constant balancing between these two positions occasionally made my colleagues confused with regards to my role. Some of them openly embraced the objectives of my research, which they treated as an opportunity to democratize the functioning of the organization, particularly with regards to how it interacted with local communities. Others remained more skeptical, occasionally ignoring my questions on project operations. At the same time, I had to carefully dodge some uncomfortable questions, myself, and avoid being assigned the role of a UNDP 'spy' in Liberdade, given the project coordinator's frequent questions about what was going on in the village. I did not wish to undermine the trust placed in me by community residents.

Even though I felt very welcome during my visits to the village, I was constantly aware of being in an explicitly privileged position, both politically and economically, relative to the residents. Thus, it is perhaps no surprise that on at least four separate occasions, I was solicited for material help by individual residents. As an example, one of the most active members of the informal young men's group asked if, through my alleged connections in the MoARD, I could 'arrange' several chickens for him and his family. On another occasion, Fabio subtly mentioned that a member of his inner circle had also had a friend from Europe, who then organized their move from São Tomé and Príncipe to Portugal. By saying that, he was, as I understood it, surveying whether or not I would be ready to do the same for him. In both instances, I had to decline. While

in the case of the former request, this resulted in somewhat less personal contact over time, my relations with Fabio did not seem to suffer from turning him down, at all. At the same time, there were those residents who, probably taught by the experience of dealing with well-meaning yet hollow interventions, seemed to have a more skeptical attitude towards my presence in the village. During one of the interviews with an elderly woman, she made her thoughts known rather bluntly:

Michael, don't just write! Bring things to us. Don't forget about us. All you do is write! You write and you go away.

[Rosaura, elderly woman]

These words need to be put in the context of various development agents visiting local communities around São Tomé and Príncipe on a regular basis, conducting their assessments, extracting local knowledge, converting it into reports, and rarely leading to any tangible improvement in the local quality of life. This once again confirms Haraway's view about researchers and practitioners co-opting local people into their work without offering much in return. And while I have stayed in touch with several of the residents through social media after the conclusion of fieldwork, it is probably safe to posit that my presence there did not result in any meaningful improvement to their lives, at least as of the time of writing.

Upon my return, and particularly during the period of writing up the empirical chapters, I needed to constantly ask myself how to frame the obvious problems I encountered in the functioning of UNDP, and particularly my critical opinion on how local communities are effectively excluded from participation in project design, despite official documents painting an entirely different picture. I was, and still am, very grateful for the opportunity to conduct my work at UNDP, and for the access the organization granted me to its physical and digital spaces. I kept thinking about how Mosse's (2005) publication of *Cultivating Development* led to breaking professional and personal relationships, putting his whole research project in jeopardy. As an early-career researcher, I have personally cherished my relationship with UNDP. Losing it would severely curtail the potential of turning my work in Liberdade into a longitudinal study (as I would like to return to the village and observe the long-term effects of the adaptation project), not to mention decrease the appeal of my research program to future employers. Therefore, the following chapters are inevitably guided by this careful balancing (conscious or not) between the roles of a critical and an action researcher (Mosse, 2001a).

The final aspect I would like to briefly discuss here is the intersubjectivity of the knowledge that has been produced by this study. As Cloke et al. (2004, p. 170) note, “ethnographic findings are not (...) ‘realities extracted from the field’ but are ‘intersubjective truths’ negotiated out of warmth and friction of an unfolding, iterative process.” Intersubjective methods, they continue, allow to equalize power relations by allowing the researched more opportunity to frame the study. The reluctance on the part of UNDP to share additional documents with me upon my departure, for instance, could be interpreted as study participants exerting their power to limit my access to potentially revealing or otherwise inconvenient information. Similarly, in Liberdade, entrusting Fabio with the selection of most interviewees in the village meant that he had the power to decide what kind of community voices would be heard and whose problems would be discussed. Overall, however, my understanding of the UNDP offices and of Liberdade required engaging in constant interactions with the participants, and was in the end circumscribed by the extent to which they were willing to ‘let me inside’ their respective communities.

This is why I would not wish for my findings presented in the following chapters to be interpreted as ‘objective truths’ about UNDP or Liberdade – these, from my standpoint, do not exist. Rather, they are a result of a complex configuration of access to information, my personal background and professional training, the adopted theory-driven approach to data collection (Boyatzis, 1998; Gellner and Hirsch, 2001a), the interests and subjectivities of everyone involved in the research process, and pure chance. That said, the period of over seven months of fieldwork resulted in a wealth of in-depth data, which has allowed me to critically analyze how adaptation to climate change is governed at the level of UNDP and in the local community of Liberdade. I will turn to this analysis and my findings in the further empirical chapters that follow.

4. The spaces of adaptation

The following four empirical chapters aim to, in turn, provide rich context surrounding the adaptation intervention promoted in São Tomé and Príncipe by the national government and UNDP, analyze the post-political condition of adaptation governance on the archipelago, and to critically discuss the implications it has had so far and is likely to have in the future for the residents of Liberdade. This first chapter provides the context necessary for getting to know and understand the spaces of adaptation: the nation of São Tomé of Príncipe, with its tumultuous colonial and post-colonial history, and the small rural community of Liberdade, where the adaptation project will be implemented. This largely descriptive account is paramount for the critical analysis conducted in the following three chapters.

4.1. From slaves to smallholders

São Tomé and Príncipe is the second smallest country in Africa (after Seychelles), both in terms of area and population. It is a small island nation in the Gulf of Guinea comprised of two major islands, São Tomé and Príncipe, and a number of islets (see Figure 3). With an area of 1,001 square kilometers, the country is smaller than Greater Manchester. It has a population of over 190,000, with just under 60,000 people residing in the capital city of São Tomé (World Bank, 2017). Due to being a former Portuguese colony, the country's official language is Portuguese, and there are also four main and mutually non-intelligible Creole languages in use. These are Santome, Angolar, Cabo-Verdean in São Tomé island, and Lung'le in Príncipe (Becker, 2015). São Tomé and Príncipe is one of the poorest countries in the world – its nominal GDP per capita is \$1,760 USD, and it is classified by the United Nations as a Least Developed Country (LDC) (World Bank, 2017). Over 90 percent of its budgetary spending is financed by foreign aid (INDC, 2015). It is, by many standards, a rather atypical nation for the region as it displays traits attributed both to small Caribbean islands and other African states (Seibert, 2006). In the words of a government official:

[T]he island refused to go when (...) Africa and America decided to divide. [It] resist[ed] to go to America and resist[ed] to stay with Africa. That's why we are here!

[Joaquim, government agency, São Tomé]



Figure 3. São Tomé and Príncipe, with the northern district of Lobata – where Liberdade is located – highlighted. Credit: Cartographic Unit, School of Environment, Education and Development, The University of Manchester.

That said, it is perhaps more appropriate to speak of São Tomé and Príncipe's colonial and most recent history as straddling three rather than two continents: Africa, South America, and Europe. It is an African Creole society created 'from scratch' by Portugal's drive for an empire. Unlike in most African colonies, there was, in most likelihood, no autochthonous society before colonization in the archipelago, partially explaining the lack of ethnic or religious conflicts in the country today. Similarly, there are no traditional, local-level political institutions, no communal land tradition, and until the early 1990s, there was virtually no class of smallholders on the islands (Seibert, 2006). The country's small size and insularity also distinguish it from its larger neighbors in the African continent (Seibert, 2006). In fact, its smallness, deficient transport and communication networks, diseconomies of scale, great distance from markets, lack of natural resources, and few export commodities, along with a "goldfish bowl" nature of the local society (prevalence of face-to-face relations and small-town mentality) all make it resemble the small island nations of the Caribbean. Yet, its geographic isolation, having been ruled by a different empire (Portugal as opposed to Britain, France, the Netherlands, and Spain) and the exceptionally early manumission of slaves (1515-1517) set it apart from its distant Caribbean cousins (Seibert, 2006).

São Tomé and Príncipe's history has always been driven by agriculture, and its society shaped by the structure and dynamics of a cash crop plantation economy. Portuguese explorers arrived in the islands of São Tomé and Príncipe in 1470 and 1471, respectively, an event that would precipitate a period of over 500 years of subjugation to Portugal – one of the longest experiences of colonial rule in world history (Seibert, 2006). The archipelago was the site of the first tropical plantation of a European power (and second European settlement in the tropics after Santiago in Cabo Verde), with the first estates established around the turn of the 15th century. São Tomé and Príncipe is marked with what Curtin (1999) dubs the "plantation complex," which was based on forced labor (mostly slaves and subsequently indentured workers), large-scale capitalist plantations as the main form of economic activity, and a heavily export-oriented economy ruled from a European metropole. São Tomé lent itself well to the cultivation of sugarcane, as it benefitted from a tropical climate, rich volcanic soils, and nearby "sources of labor" in Congo and Benin (Curtin, 1999, p. 24).

As mentioned above, there was almost certainly no indigenous presence in the archipelago before colonization, and the contemporary Santomean society is a reflection of the movement of various people between continental Africa, Europe, and the Americas that started in late 15th century. The foundations of a Creole society were laid

during what is considered the first colonization, with a small number of Europeans (mostly Portuguese convicts and *personae non gratae*) settling on the island and managing sugarcane plantations (*fazendas*), with slaves transported from the African continent. Living conditions in the tropical climate were harsh, especially for white Europeans, and in order to foster the growth of the small colony, between 1515 and 1517, King Manuel I manumitted the first slaves brought to the islands. This event would create a class of *forros*,⁹ who still occupy the highest strata of the Santomean society today. After 70 years of prosperity, the sugarcane-based economy collapsed mainly due to competition with higher-quality sugar from Brazil, resulting in a temporary *de facto* suspension of Portuguese control over the islands.¹⁰ During that time, the plantations were to a large extent abandoned, allowing the slave-owning *forro* elite to take over much of the land and continue limited, independent production and trade. By that time, the creolization of the archipelago was well underway, with freed blacks, mulattos (descendants of Portuguese colonists and African women), and slaves all partaking in the creation of an African Creole society (Seibert, 2006).

The independence of Brazil in 1822 and the abolition of slave trade in Portuguese territories in 1836 marked the second period of colonization by Portugal, which started in mid-19th century. This time, however, the main cash crops would be coffee and, more importantly, cocoa – both brought to the archipelago from Brazil. The colonists gradually dispossessed the *forros* through land purchases, fraud, or force, a period still referred to in the latter’s collective memory as the loss of their ancestral land (Seibert, 2006). This was also the time when the largest plantations (*roças*) were established, including Rio do Ouro in 1865, of which the community of Liberdade was a dependency (*dependência*). The abolition of slavery in Portugal in 1875-76 marked a huge change for the small island society once again. Newly-freed slaves and the *forros* refused to work on the plantations, instead preferring to find other sources of income such as fishing, bureaucracy, manual labor, or independent agricultural production in small plots of land (*glebas*).¹¹ Faced with an acute labor shortage, the Portuguese colonial administration nevertheless decided to continue the plantation economy in the archipelago by introducing an indentured labor system, which would span for almost 100 years, with workers (*serviçais*) recruited for renewable, three-year contracts from elsewhere in Africa. This was in contrast to the decisions made by the colonial powers

⁹ From *Carta de Alforria*, Portuguese for the “Act of Manumission” (Becker, 2015).

¹⁰ Portugal’s loosening grip on its colonies was also facilitated by a period of political instability in the country (Seibert, 2006).

¹¹ Traditionally, *glebas* were more important for the prestige that they bestowed upon the *forros* than for their limited agricultural output.

in the Caribbean where after the collapse of the plantation economy, a peasant class emerged, instead (Seibert, 2006). The contract workers came mainly from Angola, Gabon, the Gold Coast, Liberia, Mozambique, and Cabo Verde. While the contingent was heavily male-biased, Cabo-Verdeans came as couples, forced to emigrate by famine (Seibert, 2006). While most indentured workers returned home after the proclamation of independence by São Tomé and Príncipe in 1975, the vast majority of Cabo-Verdeans opted to stay. As will be discussed later, most residents of Liberdade are descendants of these Cabo-Verdean migrants.

The working and living conditions of the indentured workers were for the most part extremely difficult, and until mid-20th century, the contracts were rarely honored and often renewed without the consent of the worker. In mid-19th century, the *serviçais* created a song that went: “In São Tomé there is a door to enter, but there is no door to leave” (Seibert, 2006, p. 52). Shutting the workers in their housing units (*senzalas*) for the night and prohibiting them from leaving the plantations outside working hours, cultivating their own plots, or securing other sources of income are only some examples of the poor living and working conditions in the *roças*, which at times saw worker mortality rates reach 22.5 percent (Seibert, 2006). This even led to a short-lived boycott of Santomean cocoa by William Cadbury in 1909 (Seibert, 2006).

At independence in 1975, unlike many other post-colonial nations in Africa, the new government of São Tomé and Príncipe did not hold democratic elections and instead decided to pursue a Soviet-style model of development (Eyzaguirre, 1989). The plantations were nationalized in the same year to form the backbone of the young nation’s undiversified economy. Importantly, nationalization was also to consolidate the regime’s newly-acquired power by hindering local concentration of wealth and preventing Santomean nationalism from developing further (Seibert, 2006). However, the internal structure and functioning of the plantations did not change compared to the previous 100 years, with the exception of whites having been replaced in top-level jobs by *forros* (as was also the case of government and public administration positions). The indentured workers and their children (*tongas*) continued to work in the plantations, although independence would mark the beginning of their slow but steady migration to the capital (Seibert, 2006). The process was also facilitated by their decreasing morale and the growing stigmatization of agricultural labor – already loathed by the *forros* due to the oppressive colonial experience.¹²

¹² The massacre of February 1953 following a revolt sparked by rumors that the Portuguese would force *forros* into agricultural labor was a crucial part in the process of the formation of the Santomean national

In the early 1980s, the growing inefficiency and unprofitability of the plantations owed to a range of micro- and macro-economic factors pushed the socialist government to seek new sources of foreign aid, upon which the young state's budget heavily depended. This brought São Tomé and Príncipe closer to the Bretton Woods institutions,¹³ which – in their usual fashion – made the disbursement of financial assistance contingent on the implementation of liberalizing economic policies (Seibert, 2006). As a result, in 1987, São Tomé and Príncipe agreed to a Structural Adjustment Program (PAE), which aimed at diversifying the economy, increasing exports, and repaying the national debt, which by that time had grown to \$86 million USD (Seibert, 2006). Interestingly, the IMF and the World Bank did not initially push for land redistribution and a denationalization of agriculture, recognizing the absolute lack of an entrepreneurial base in the country for a policy of this kind. Instead, several *roças* were put under foreign management by European companies, and state monopoly on imports and exports was abolished (Seibert, 2006).

The first democratic election in the country and the assumption of power by the opposition further increased the rate of liberalization (Seibert, 2006). At that time, agriculture amounted to 23 percent of GDP, 95 percent of exports (mostly cocoa), and two-thirds of national employment. The various projects aimed at diversifying the economy and freeing São Tomé and Príncipe's market from the volatility of global cocoa prices had failed completely. Despite having invested \$40 million worth of donor funds into the agricultural sector by 1995, only one of the estates, Bela Vista, returned profits (Seibert, 2006). The failure to modernize the plantation economy finally led to the reform that has arguably had the most profound socio-economic consequences in recent Santomean history – the redistribution of agricultural land to the rural population (Seibert, 2006).

Started in 1993 and continuing for around a decade, the painstaking process of land distribution was slow and wrought with many problems, including the poor state of rural infrastructure, insufficient funds, and lack of transparency (Seibert, 2006). Three groups received priority in the point-based allocation process: the *serviçais*, unemployed civil servants (who had lost their jobs as part of the 'tightening the belt' PAE policies), and graduates of the Center for Agro-Cattle Technical Improvement (CATAP) (Seibert, 2006). As much as 75 percent of the available land was to be

identity (Seibert, 2006). Around 1,000 *forros* are estimated to have lost their lives as a result of these events (Eyzaguirre, 1989).

¹³ In reality, the socialist government of São Tomé and Príncipe was guided by the principle of non-alignment in its foreign policy, which allowed it to become a member of both the World Bank and IMF immediately after independence (Seibert, 2006).

partitioned into plots not exceeding ten hectares each and leased to what would constitute a rural class of smallholders, with the remaining 25 percent assigned to medium-sized enterprises between ten and 50 hectares (and later increased to 100 hectares). In reality, the proportion was skewed in favor of the latter, one of the first signs of reconsolidation under the new land property regime. Importantly, all plots in São Tomé and Príncipe are used on a usufruct basis – concessionaries lease them under renewable, 20-year provisional titles (*títulos provisórios*), with the provision that the state can revoke the concession if the land is not considered cultivated properly. Beneficiaries were also expected to pay an annual rent per hectare amounting to 15 percent of the estimated production value (Seibert, 2006), a practice that reportedly is virtually abandoned in Liberdade today. As Seibert (2006) presciently noticed in the early 2000s, the system may exhaust itself upon the distribution of all the available land, leaving the young generations with just two ways of obtaining a plot: the death of a relative or someone else giving up their land. This, as will be seen later, is one of the causes of vulnerability for a lot of young people in Liberdade.

The land reform was transformative also in the sense that it granted African immigrants and their descendants hereditary rights to land, which until then they could cultivate only as salaried laborers (Seibert, 2006). However, the newly-created peasant class encountered a number of issues after embarking on their new livelihoods. Lack of training, equipment, and credit, as well as poor access to markets, inefficient transport, lack of housing, steep terrain preventing diversification, and other environmental pressures all conspired to prevent the new smallholding class from increasing agricultural productivity and transforming the country's crippling primary sector (Seibert, 2006). Moreover, the attitude of arrogance towards the rural population on the part of the (predominantly urban) *forro* elite has not been conducive to cooperation between the already poor agricultural extension service and the farmers (Seibert, 2006). In the words of Helmle (cited in Seibert 2006, p. 351), “communities of interest, self-initiative, creativity, mechanisms of conflict resolving, rural communities, co-operation and communication capacities, as well as representation on the political level are only very weakly present.” This description is as valid today as in 1997 when written, as will be discussed in greater detail in the following chapters. Yet, despite some antipathy between different ethnic groups in the country, the society of São Tomé and Príncipe is peaceful and under a constant process of creolization. The tensions between the *forros*

and the former *serviçais* are nothing like back in the mid- and late 20th century,¹⁴ and the differences between the two groups have been gradually blurring¹⁵ (Seibert, 2006). The social life in São Tomé and Príncipe is guided by an oft-repeated maxim, which shares its acronym with the name of the country (STP): *Somos todos primos*, or “We’re all cousins.”

According to the 2004 IMF data, between 1993 and 2003, around 43,500 ha was distributed to a total of 8,735 beneficiaries, with an average plot size of 3.2 ha (Seibert, 2006).¹⁶ The reform, while completely changing the socio-economic landscape in the countryside, did not lead to increased cocoa yields. Similarly, the Santomean agriculture failed to diversify, with the output having slightly increased for only three foodstuffs (Seibert, 2006). In the last several years, the problems encountered by smallholders in São Tomé and Príncipe described above have been further compounded by increasing climatic events attributable to global environmental change (NAPA, 2006).

4.2. Climate change in São Tomé and Príncipe

As an island nation, São Tomé and Príncipe continues to see our very existence threatened by global warming. Our shorelines erode, our national territory shrinks as the seas rise. Is my small country to end up nothing but a tiny volcanic peak sticking up above the waves with the last of our people clinging to the land left unclaimed by the rising sea?

[Fradique de Menezes, President of São Tomé and Príncipe
24 September 2004, UN General Assembly 59th session]

The archipelago of São Tomé and Príncipe is made up by volcanic islands and islets, with the southernmost one (*Ilhéu das Rolas*) located exactly on the equator. As a result, the region’s climate is humid tropical with abundant rainfall throughout the entire year, with the exception of the months of June, July, and August, a period of lower precipitation called *gravana* (First Communication, 2004; NAPA, 2006). In addition, a similar but shorter transient period of decreased rainfall called *gravanito* occurs between December and January (First Communication, 2004). The mean annual

¹⁴ The indentured workers sided, often under pressure, with the Portuguese rather than the *forros* in the 1953 revolt.

¹⁵ The third major ethnic group in the country, *Angolares*, are concentrated in just one major area of São Tomé Island (the south-eastern coast) and likely are the descendants of slaves who escaped the plantations – a common problem for the estates during the first colonization (Seibert, 2006). This group has traditionally shied away from political conflicts at the national level.

¹⁶ In addition, around 2,000 more hectares were distributed in the following two years, bringing the number of the land reform beneficiaries to 11,783, according to government sources (Second Communication, 2012).

temperature is 26 degrees Celsius, with significant regional variation between 27 degrees in the coastal areas and 21 degrees in the mountains, and a high level of humidity throughout the year (First Communication, 2004). The high relief results in a number of microclimates on the island, with the south and south-west receiving the highest amount of rainfall (around 7,000 mm per year) and the north and the north-east displaying a more semi-arid, savanna-like climate (Picture 1) characterized by herbaceous vegetation and scattered trees and shrubs, as well as a relatively low annual rainfall of around 1,000 mm (Second Communication, 2012). The district of Lobata, along with Liberdade, is located in this semi-arid region of São Tomé Island (see Figure 3).

As a small island developing state (SIDS) and a least developed country (LDC), São Tomé and Príncipe is considered to be particularly vulnerable to climate change impacts. The extensive government documentation submitted to the UNFCCC Secretariat lists a range of biophysical and socio-economic impacts that global environmental change may cause in the islands under different climatic scenarios. In general, these impacts are increasing temperatures, decreasing rainfall, and rising sea-levels, all with their own (and often intrinsically related or even compounding) biophysical and social effects on different sectors of the national economy, including agriculture, forestry, fishing, infrastructure, water, energy, and health (First Communication, 2004; INDC, 2015; NAPA, 2006; Second Communication, 2012).

São Tomé and Príncipe's vulnerability to climate impacts is emblematic of the climate predicament of other SIDS, especially those belonging to the LDC group.¹⁷ The UNFCCC (2005, p. 2) recognizes SIDS as “a special case” in that although they are among the least responsible for causing climate change, they are bound to be impacted by it the most (including rendering some of them uninhabitable), warranting particular attention of the international community. While in principle it is problematic to make generalizations with regards to such a diverse grouping of states, despite their diversity they do share certain characteristics that make them particularly vulnerable to climate impacts. Most are located in the tropical regions, and are thus susceptible to seasonal storms, cyclones, hurricanes, and droughts. They are described as generally densely populated (particularly in coastal areas), having limited natural resources, including freshwater (making them susceptible to sea-level rise), and suffering from diseconomies of scale, import-dependency, inadequate infrastructure, and limited

¹⁷ Besides São Tomé and Príncipe, these include: Cabo Verde, Comoros, Guinea-Bissau, Haiti, Kiribati, Maldives, Samoa, Solomon Islands, Tuvalu, and Vanuatu.



Picture 1. The savanna landscape of rural Lobata.

financial, technical, and institutional capacities (UNFCCC, 2005). Among these countries, São Tomé and Príncipe is among the ones with the lowest GDP per capita, and has also been identified by the IMF as one of the seven SIDS that are currently at a high risk of debt distress (Li and Le Blanc, 2013).

In terms of the climatic changes over the last decades in São Tomé and Príncipe, the mean temperature has increased by 1.5 degrees Celsius between 1951 (when reliable data collection started) and 2010, with a concomitant decrease in annual rainfall of 1.7 mm (Second Communication, 2012). However, these changes have not been distributed equally in temporal terms. As in many other regions of the planet, the trend of the global environmental change in São Tomé and Príncipe is to move towards the extremes, with the dry season becoming drier and rainfall increasing during the more humid months (Giardino et al., 2011; NAPA, 2006; Second Communication, 2012). The mean annual temperature in São Tomé and Príncipe is expected to rise between one and two degrees Celsius by 2050. Precipitation is projected to grow between 2040 and 2060 overall, ranging from modest increases to significant decreases during the drier months, depending on the GHG emissions scenario applied (Second Communication, 2012). In either case, the *gravana* has been reported to last up to six months (April to September) compared to its traditional duration of three months (June to August) (UNDP, 2014).

Finally, the sea level is expected to increase by between 0.2 and 0.86 meters by the year 2100, a serious risk for a country in which 80 percent of the population resides in coastal areas (First Communication, 2004).

While falling precipitation, increasing temperatures, and the rising sea level with the resulting coastal erosion are among key climate issues in the country, one of the most serious impacts identified by government sources is the progressing savannization in the district of Lobata, which is further compounded by the increasing rate of illegal logging for domestic or commercial purposes (the highest in the entire country) (Second Communication, 2012). In fact, the project document identifies Lobata as the district most vulnerable to climate impacts in the whole country (UNDP, 2014). This is due not only to its biophysical exposure to climate hazards – increasing temperatures, the already low levels of rainfall which is increasingly erratic, and the resulting savannization – but also a relatively high incidence of poverty¹⁸ (67.8 percent of the population, or 1.6 percentage points above the national average) (IMF, 2014). Importantly, 68.4 percent of farmers in São Tomé and Príncipe are considered poor, the highest proportion of all employed socio-economic groups (IMF, 2014). The political marginalization of rural dwellers – mostly descendants of the traditionally-sidelined indentured workers – is also bound to play an important role, as will be demonstrated in the chapters to follow.

The effects of increased temperatures and decreased rainfall in the north are already being felt by smallholders. The drought of late 2015 had led to widespread crop failure throughout the district, and undermined the production of maize, in particular. That year, according to local accounts, there was only one harvest in Lobata as opposed to the usual two. The change in the rainfall regime has also been observed by development and government professionals on the island:

[We] have a very big problem with the rains, which [are] no longer in the same regime like before. So, if before you had 9 months [of] rain and 3 months [of] drought, dry season and the people who do agriculture know very well when the rain is coming, when the rain is stopping... Today, it is not clear for us. 'Cause during the dry season, you can have rain. During the rainy season, you [may not] have rain. So, if you organize your agriculture using the rain, without irrigation and other additional foods, this is a big problem we are facing. Last year, most of people from the north, they [lost] the crops of maize. All crops

¹⁸ Understood as living on less than 30,000 São Tomé Dobra (STD), or approximately \$1.40 USD a day.

[were lost]. I believe you are aware about that. So, this is one of [the] issues.

[Joaquim, government agency, São Tomé]

The poor state of the irrigation infrastructure throughout the country, compounded with the higher incidence and frequency of drought episodes, is seen by the professionals as a major threat to local people:

[I]n some places in the north, we can already see [clearly] the climate is already more, more... dry. (...) We can already see that. The climate change. (...) The drought is much longer in the north. And there is no irrigation process. And so, the plantations... there are problems in the plantations [because of this].

[Elias, NGO, São Tomé]

Importantly, these impacts are widely seen as detrimental to food security in the country:

[Interviewer:] You mentioned problems with production, seasons, etc. What are the concrete effects for communities at the local level?

[Participant:] Well, the problem of food security, predominantly, I think. Because when there's little production, mostly of maize, well, basic products, let's say, then there are food security problems at the community level.

[Mariano, government agency, São Tomé]

Here, food security is used most prominently as sufficient independent food production by smallholders. Importantly, the state is seen as incapable of – or as the matter of fact institutionally unprepared for – providing food aid to rural residents as São Tomé and Príncipe has never experienced a famine episode in its post-colonial history:

So, if their subsistence activities are based on (...) resources so vulnerable to climate change like it is the case at the moment, I don't know what might happen. I really don't know. 'Cause it's very difficult to evaluate in a country [as] fertile as this one, 'cause people are not hungry. They are malnourished but... (...) They don't die of starvation. They always have a next-door neighbor to go and get a... banana... thingy... in order to feed the family. You have wood in the forest (...), so you can always

cook. So, the basic [stuff] is always there for you. Provided by nature. Until one day. Until one day...

[Constança, NGO, São Tomé]

Visible here is the fear-laden rhetoric about the uncertainty of the country's climate future, which will be discussed in greater detail in the next chapter. This deep preoccupation stems from the fact that the majority of the people in the country sustain themselves through small-scale agriculture:

Because the majority of the citizens in São Tomé, people that live in São Tomé, depend on agriculture... Probably, 70 percent or more are living by subsistence farming. And then, also, selling commercial farming [products]... planting cocoa or collecting the seeds for cocoa. And there is no rain. And you can imagine what will happen. (...)

[William, NGO, São Tomé]

The following section will describe in greater detail the very context outlined by the interviewee above by providing an ethnographic account of Liberdade – the small village in Lobata which, next to the two UNDP offices in Addis Ababa and São Tomé, was selected as one of the three research sites for this study.

4.3. The road to Liberdade

Before my first visit to Liberdade, Maurice wanted to ensure that we follow the required protocol, so before sending me out, he asked Gloria, one of the senior members of the finance team, for assistance in introducing me to both the local authority and village residents. The next morning, the driver drove us in a UNDP-branded pickup to Guadalupe, the largest town in Lobata and its district seat. We entered the relatively small, single-story building surrounded by a neatly-cut lawn and made our way to a rather compact office with two desks. Gloria outlined my study to one of the local officials, upon which we heard that conducting research in Liberdade would not be an issue as long as I would deliver an official endorsement letter from UNDP. Gloria kindly thanked the lady behind the desk, after which we left. I was ready to head home, a little annoyed by even more red tape (it took some bureaucratic maneuvering to get me to São Tomé and Príncipe as an intern, to begin with), when I heard “Okay. Let’s go to Liberdade.” Gloria was sure it would be alright to go there the same day.



Picture 2. Dry maize spotted on the way to Liberdade.

Our driver, who had been waiting in the truck outside, drove us in the direction of Liberdade and then dropped us off at a fork, just off the main road. Gloria and I would walk to the village from here, as he had to return to the office. While the temperatures in the region are relatively stable throughout the year due to the tropical humid climate, March is one of the hottest months, and the first walk to Liberdade was certainly emblematic of it. With few clouds and the sun almost exactly above our heads, the heat and the humidity were giving me a rather hard time. The first walk to Liberdade itself provided many insights, a sort of milieu, into a community that I had never visited before. The dirt road we were walking had clearly never been surfaced, with deep ruts formed by water erosion, motorbikes, and the occasional car. As I would hear almost every day in the community, the poor state of the roads leading to the main artery of the district is one of the most pressing problems, severely affecting the transport of goods to and from Liberdade.

Gloria would occasionally stop to show me different plants and trees that were important for local livelihoods. At one point, she gestured towards the dry maize crops to the right (Picture 2), explaining that they had been affected by rain failure several months earlier as well as an infestation by some sort of caterpillar. Then, she said: “Imagine these barren fields full of different crops: potatoes, tomatoes, maize,

sugarcane...” Just as many residents of Liberdade, she remembers very well when the climate was more predictable, with rainfall coming at regular intervals and in moderation. Now, she said, because of water scarcity and poor irrigation, agricultural production in the village had fallen considerably. That is arguably one of the reasons why some locals resort to the practice of making charcoal. Suddenly, Gloria turned left into the forest and asked me to follow her. Momentarily, we arrived at a small area of cleared forest – a charcoal production site – with large chunks of wood prepared for pyrolysis (Picture 3). Gloria was visibly upset by it, and accused the locals of destroying their own environment. She noted that charcoal is a very affordable source of energy for domestic use, and therefore it is not difficult to find buyers for it. As some of the younger residents of Liberdade would explain to me later, another benefit of charcoal production is that it is ‘quick money’ unlike working the field, which takes months to return profit – provided there is no drought, of course. As such, it is often used as a last-resort solution if money is short.

After we got back on the dirt road, we encountered Eugênio, a resident of Liberdade and the community’s former vice-president. He talked to Gloria about the village president. One day earlier, I had heard from Maurice that the community had some problems with its leader, but he was not aware of the details. Eugênio said that the president could remain in office for 50 years for all that he cared, revealing some very hard feelings between the two men who used to serve as Liberdade’s leaders together.



Picture 3. Wood chunks prepared for pyrolysis spotted on the way to Liberdade. Charcoal production is not an infrequent way of complementing local incomes in the village.



Picture 4. Old irrigation channel in Liberdade. Water flow is intermittent and depends on the water table in the nearby river.



Pictures 5 and 6. Rio do Ouro water levels photographed in the same spot during dry (left) and rainy (right) weather.

Because of the absence of traditional political institutions in São Tomé and Príncipe, community governance is rather formalized, with residents electing their leader through a secret ballot based on an estatuto, or a community ‘constitution.’ However, Eugênio did not believe the vote was secret and he was clearly agitated when talking about the president.

Finally, Gloria and I arrived in Liberdade. Right before reaching the first buildings, we crossed a small ditch full of trash, which intersected the road under an old, rusty iron grate (Picture 4). Gloria explained it was essentially what was left of the colonial irrigation system and that with poor maintenance and virtually no investment for decades, the whole infrastructure had fallen into disrepair. Now, it would carry water only occasionally, when the water level in Rio do Ouro, a nearby river feeding the irrigation channels (Pictures 5 and 6), was sufficiently high. However, this would be mostly during the rainy season when irrigation is not required to the same extent as during the gravana. Upon entering the village, Gloria and I walked to the lavanderia, or the laundry, a highly dilapidated, wall-less structure with concrete sinks and washboards under an asbestos roof, located on the edge of the quintal (Picture 7). There is normally at least one lavanderia in every village in Lobata. However, the one in Liberdade had no running water, and instead had become a popular meeting and hanging out spot for the residents. This is where we met Fabio and other young men who form part of the (at the time unofficial) youth association (associação dos jovens) for the first time. They, too,

became very agitated when Gloria asked them about the president, as she wanted to introduce me to him, as well. At this point, it became obvious that community governance is an incendiary topic for the residents.

After introducing me to the group, Gloria asked Fabio to show me around and take care of me during my frequent visits moving forward. Next, the three of us walked away from the quintal and towards the edge of the village. There, Gloria and Fabio showed me a number of abandoned structures that had been built by the Taiwanese technical mission with American funds: a small water reservoir, a community storage shed, and wooden enclosures for small and large animals such as pigs and chickens (Pictures 8, 10, and 11). Apart from the shed, which is used to deliver literacy classes to adults in the evening (Picture 9) as well as by the president for storing maize husks, the structures are disused despite being in an acceptable condition. As such, they give testament to the challenges of local development initiatives which rarely continue after the conclusion of their project cycle. Sustainability is a serious issue for such initiatives in São Tomé and Príncipe.

After introducing me to Dona Rita who owns a local shop where I could get food in case I got hungry, Gloria called for two *motoqueiros* (motorbike taxis) who took us back to the main road. When we were waiting for the minibus back to the city, a



Picture 7. The *lavanderia* (foreground), community shed (right), and *senzalas* (background) in Liberdade



Pictures 8, 9, 10, and 11. The structures built by a development project that had concluded several years earlier in Liberdade: an information sign (top left), the inside of a storage facility now used for evening literacy classes (top right), and unused animal enclosures (bottom left and right).



Picture 12. Loggers returning from the forest with a truckload of wood.

police patrol pulled over and asked if we had seen any cars driving into the woods. Gloria suspected they were looking for illegal loggers, and she was correct. Not more than 20 minutes later, we saw a truck full of chopped wood emerge from the forest (Picture 12). The driver told Gloria that they had bribed the police to leave them alone. This made her upset again, after which she said that corruption of this kind is typical not just of the police but other government forces, as well.

The first day in Liberdade exemplified the many issues the community needs to cope with on a daily basis: poor condition of the roads, increasing incidence of drought episodes, depletion of forest resources due to charcoal production and illegal logging, a leadership crisis, and failed development projects. I met friendly and helpful individuals who were happy to accommodate me during my first visit. Over the next coming weeks, I had a chance to get to know Liberdade and its residents. The relationship that we built allowed me to better understand the lives and livelihoods of its people, and how these would interact with the adaptation project within the post-political configuration of climate governance on the islands.

4.4. Getting to know the place

Over the next two months, I would leave the UNDP office shortly after noon. Fabio had mentioned that most farmers in Liberdade spend the morning through the early afternoon working their plots, so I transitioned to the field as the office workers were leaving for their extended lunch break. First, however, I would have lunch in one of the local restaurants, go back to my studio to change into a pair of shorts and a T-shirt (I did not want to appear in the village wearing business clothes) and then catch a Hiace minibus towards Liberdade from the main square in the capital. I learned quickly how to find the correct bus, where to ask to be dropped off, and to pay the correct amount for the ride. During the short trek from the main road to the village, I would pass local residents who would gradually start to recognize me and greet me with a smile and a nod of acknowledgment. With a surprising consistency, I would arrive in Liberdade to the very same sight.

Young men hanging out in the *lavanderia*, sitting, talking, and frequently playing their favorite card games, laughing and shouting with excitement. Other men, usually of older age, could be seen walking back to the village from every direction after a day's work in their fields, wielding their hoes and machetes, their feet covered in soil. Women would mostly stay in or around their homes, busy with household chores such as cleaning, hanging out the laundry, cooking, or looking after children. I often saw women doing laundry either in a small stream or an old irrigation ditch, both a short walk from the village (Picture 13). More senior women would sometimes hang out at the other end of the *lavanderia*, but they would never mix with the men. Some people would smash recently harvested maize using large logs and wooden mortars, then spill the content into a bowl sitting on the ground, letting the unwanted husks be blown away by the wind. The community is also home to a range of domesticated animals, and you could see many pigs and piglets, chickens, and stray dogs roaming freely around the village. The whole scenery would be set in scorching sun or, occasionally, warm, torrential rain that would rarely last more than half an hour. The smell of burning firewood from the outside kitchens would occasionally interrupt the fresh, neutral scent of the area, as would the occasional animal manure and trash pile. Every day, invariably, you could hear very loud local music playing from several houses, one over the other, as if the households were competing for aural primacy. To an uninformed observer, the songs would certainly sound Caribbean.



Picture 13. An old irrigation channel used by women to do laundry.

According to government sources, Liberdade is a local community of under 400 people in the northern district of Lobata, comprising around 160 resident families.¹⁹ Until the early 2000s, it was a dependency (a satellite village) of the Rio do Ouro plantation established in 1865, renamed Agostinho Neto in 1979 in honor of the first president of Angola (Seibert, 2006). Following the nationalization of agriculture at independence in 1975, the plantation, along with all its dependencies, fell under the ownership of the state, and in 1991 went under private management by state officials as part of the structural adjustment policy (PAE). Reportedly, the land reform was implemented in Liberdade rather slowly, with certain smallholders having obtained land in the early 1990s and others around a decade later.

Traditionally, Liberdade and its surrounding region has been an important center for the Cabo-Verdean ethnic community. Perhaps the biggest wave of indentured workers from what many consider São Tomé and Príncipe's twin island nation arrived

¹⁹ The projected population for the year 2008 was 345 people, according to the National Institute of Statistics (INE, 2013).

as a result of the First Development Plan (*I Plano de Fomento*) published by the Portuguese government in 1952. The policy led to the settlement of 2,500 families or around 15,000 persons from famine-stricken Cabo Verde to São Tomé and Príncipe. Many of them were in all likelihood assigned to the plantations in the north. Thus, the most widely spoken language in Liberdade today is Cabo-Verdean creole, genetically unrelated to the three other creole languages spoken in the country (Becker, 2015). Despite identifying themselves as Santomeans, many residents of Liberdade are proud of their Cabo-Verdean heritage and maintain stable connections to their ancestral homeland, be it through their language, music, cuisine (*cachupa*, a slow-cooked stew of maize, beans, and meat being the most popular local dish), family ties (some people regularly migrate between the two countries), entertainment (young men often play Cabo-Verdean card games), or fashion choices (I have seen a lot of T-shirts with imprints of *Cabo Verde, Sempre* or “Cabo Verde, Forever”). However, there are voices in the community that Liberdade is losing its distinct character as a bastion of Cabo-Verdean culture due to in-migration, particularly of *forros* from other parts of the country. In a private conversation, a young resident of Cabo-Verdean descent admitted that “All I know is that when the whites left the land, the *forros* invaded.” This relatively strong choice of words notwithstanding, the process does not seem to have created any apparent ethnic conflicts in the village, at least at the time of writing.

In fact, the vast majority of the residents interviewed expressed themselves positively about the community they lived in, often invoking mutual help networks and the peacefulness as its best qualities:

So, here, in the country, we have a word to explain the situation in [Liberdade] that is called *senzala*.²⁰ (...) It’s like the place that they [used to] put the slaves. You know? And... Like the *senzalas*, always, we have fights here. But above these fights, the community is very united. If someone gets sick, even if this person doesn’t have family, doesn’t speak to anybody, the community will work together to try to help him. Even the people that don’t live with him, that don’t get along with him, will try to help him. So, we have fights here, even inside families, even brothers who don’t speak with brothers. Because it’s natural. People... when people live together, all the time [they] have fights.

[Samuel, adult resident]

²⁰ The quote demonstrates how the history of slavery is still alive in the residents’ collective memory, the word *senzala* still being used to denote the main type of housing in Liberdade.

The pragmatic attitude towards the multiplicity of relationships is consistent among the interviewees, with both men and women referring to it being ‘normal’ or ‘natural’ to have plenty of different relations among the residents at the community level:

You have all kinds of relationships. They have some arguments, discussions among different groups, but it’s normal... People who live in peace without problems, others who live very isolated, don’t mix with others... It’s all types of relationships here. It’s a little bit of everything.

[Pedrina, adult resident]

The residents are open about the variety of relations existing at the community level, which they talk about, as anything else in fact, in their characteristic, honest yet concise way that I grew to appreciate during my stay there. *Leve-leve*, or “Take it easy,” is the dominant motto guiding social relations in the village and the country, at large. People in Liberdade may be very discreet and avoid intruding into their neighbors’ private lives, but they are united by their common heritage and similar living situations. In fact, poverty is visible at every step in the village, from the modest décor of the



Picture 14. The *quintal*: Liberdade’s public space. Decrepit communal water taps and the *casa grande* are visible to the right in the foreground and the background, respectively.



Figure 4. A simplified map of Liberdade produced through participatory mapping with the residents. Credit: Cartographic Unit, School of Environment, Education and Development, The University of Manchester.

dilapidated and severely overcrowded *senzalas* mentioned by the interviewee above, through the lack of running water and sanitation facilities, to the limited choice of foodstuffs in the village. And while Fabio, constantly faced with my often sensitive questions about local inequalities, invariably maintained that *Aqui somos todos pobres* (“Here, we are all poor”), the community is more stratified than his comment may seem to suggest, just as there are different shades of poverty. This will be demonstrated further in Chapter 7.

Much like other dependencies scattered around São Tomé and Príncipe, Liberdade has been planned around the *quintal*, the only explicitly communal space in the village nowadays used for drying clothes, playing soccer, or organizing community events (Picture 14 and Figure 4). Along one of the short ends of the *quintal* is an old, large, and somewhat impressive two-story building (*casa grande*) sitting on raised concrete foundations – an imposing vestige of Portuguese colonialism that dominates the village landscape (Picture 14). This is where the Portuguese and, after independence *forro*, plantation personnel would live, including foremen (*feitores*) and clerks. In fact, one of the retired foremen still resides in the crumbling building in Liberdade today. Along the other three sides of the *quintal* run the *senzalas*, or workers quarters (Picture 15) – long rows of connected housing units between eight and 12 square meters in size, with no kitchen or sanitation facilities, and roofs covered with (by now often missing)

clay tiles. In general, these units comprise of a vestibule which most residents use as a living room, furnished with a bench, a sofa, or chairs accompanied by a coffee table and sometimes a TV and a DVD player. The bedroom is usually in the back. Until 2014, when Liberdade was connected to the electricity grid (arguably the most visible development benefit in its recent history), the *senzalas* were very dark, with small windows allowing very little sunlight inside. Most houses have separate kitchens directly in front or to the side (these are located in old concrete kitchen structures or built from the ground up with wooden planks as shown in Picture 15). Here, residents use open-fire wood stoves to prepare meals such as *cachupa*, fish stew (*cozido de peixe*), occasionally chicken stew and *calulu* (a national dish made with meat, dried or fresh fish, beans, herbs, potatoes, tomatoes, garlic, and locally-made palm oil), all served with either rice, plantains, or breadfruit.

Not all residents live in the *casa grande* or the *senzalas*. In fact, there are many wooden houses scattered around the *quintal*, either nested between the *senzalas* or built right behind them. The construction of one of these created some commotion in the past, as it encroached into the *quintal*, which is considered public space. While wooden houses in most areas of São Tomé and Príncipe have traditionally been built on stilts to increase air circulation and reduce exposure to insects and pests (Seibert, 2006), many



Picture 15. *Senzalas* in Liberdade, where a large portion of the community resides. Wooden kitchen areas are visible directly in front of the housing units.

houses in Liberdade, and particularly in the central part of the community, are constructed directly on the ground. What is important, these are usually more bright and spacious than the *senzalas* and generally belong to the wealthier residents who could afford to build them.²¹ In addition, there are several concrete, terraced single-family houses recently constructed by the government, in partial response to Liberdade's pressing housing needs. With their bright yellow walls, they visibly stand out among the dirty, tumbledown *senzalas* and unpainted wooden houses – a testimony of the political agility of the president who proudly claims to have successfully lobbied for their construction. Other than these residential buildings, the only other structures in the central part of Liberdade are the already mentioned *lavanderia*, water tank, shed, and animal enclosures (the latter two constructed by the development project mentioned earlier) as well as a derelict sun dryer (*secador*) formerly used to dry maize, a wooden community shed used for various purposes, such as religious services, and an abandoned sanitation facility (all classified as public facilities in Figure 4).

4.5. Livelihoods and climate change in Liberdade

In terms of livelihoods, the primary occupation of most residents in the village is farming. Plots in Liberdade average 1.5 ha, and the total agricultural area exceeds 916 ha (field notes). There is a number of plots that are significantly larger, notably that of the president, the former vice-president, and several absentee landowners who live in the nearby urban areas. Importantly, there are fields that have been completely abandoned due to rain failure. Unlike in most of São Tomé and Príncipe, cocoa is not the main source of income for local smallholders. Rather, Liberdade is known as a major producer of maize and sugarcane, the two being by far the most commonly cultivated crops. According to government estimates, Liberdade produces over 28 tons of maize and over 19 tons of sugarcane annually, although these figures should be considered only indicative (CATAP, 2016). While the preponderance of maize can be traced back to the farming traditions brought to São Tomé and Príncipe by the indentured workers from Cabo Verde, sugarcane is a remnant of the colonial plantation legacy. The local elders talked about maize having gradually overtaken cocoa trees in the area:

I: So, why don't people have more cocoa trees here in Liberdade?
Or bananas?

²¹ According to Fabio, building a house of this kind nowadays costs 10,000-12,000 EUR.

P: When we receive[d] the fields, we decided to open the space so we cut all the cocoa trees we had and started planting maize and sugarcane. So, now, it's the situation we have.

[Elodia, young adult resident]

Others spoke of a great fire that happened in 2005, which is said to have lasted for weeks, decimating both cocoa trees and shade trees²² in the area and forcing people to switch to alternative crops. In general, it appears that the transition from cocoa to maize, and partially sugarcane, was a gradual process rooted in both cultural preferences and environmental factors. Interestingly, locals recognize that the land where cocoa trees used to grow is more productive due to the 'white man' (*branco*) having fertilized it for centuries. The remaining land, which was used for less important crops such as oil palms, is comparatively less fertile. It has more rocks and boulders, and is located uphill with no access to irrigation. Not surprisingly, the farmers who received their new plots in this area after the reform have found themselves at a considerable disadvantage. If one is to follow Seibert's (2006) observations made with regards to São Tomé and Príncipe as a whole, it is likely that these people were less connected to government and



Picture 16. Locally-grown sugarcane.

²² Particularly in the early stages of growth, cocoa trees require the presence of other, high-canopy trees preventing excessive sun exposure (ICCO, 2013).

public administration than those who received plots with cocoa trees during land redistribution.

Sugarcane is the other major crop cultivated in the community (Picture 16). However, it is not processed to produce sugar. In fact, despite significant sugarcane yields, there is no sugar refinery in the country and all processed sugar is imported. Rather, Liberdade is fairly renowned in the country for the production of *aguardente*, a clear, sugarcane-based alcoholic drink of which the gin-like taste I was all too familiar with thanks to the unyielding hospitality of the local residents. *Aguardente* is produced for local consumption and, more importantly, for sale – mostly in the urban areas. There is also a limited practice of palm oil and palm wine extraction in the village, both for domestic and commercial purposes. Other crops cultivated locally include lima beans, tomatoes, chili peppers, cassava, sweet potato, and plantains (CATAP, 2016). However, these crops, along with sugarcane, are planted most commonly near irrigation channels due to their relatively high water needs. Therefore, the most vulnerable farmers in Liberdade who have limited access to irrigation focus predominantly on the cultivation of maize, which is said not to require as much water. At the same time, however, these plots are more dependent on the rainfall regime and are the first to be affected during droughts.

Indeed, decreasing precipitation is a trend that has been recognized by the vast majority of the residents, both during informal conversations and the interviews. As a side note, men seemed to be somewhat more informed than women about what the potential causes of droughts could be, explaining why all of the statements below were made by male farmers. This may be due to the fact that men are more likely to receive assistance through participating in training sessions by the extension services (of the kind planned by the adaptation project, for example), or because of their relatively larger involvement in the practice of farming itself, as will be discussed below.

Normally, in Liberdade, in the past it rained a lot but now it's not raining. And sometimes you plant... You see the seeds, you sow the seeds and it stops raining in the production season. So, you lose your production.

[Eduardo, adult resident]

The younger residents were not able to recall a similarly devastating drought like the one from the year before:

I: And do you know if... Have you noticed that over the last several years, has it been becoming drier here in Liberdade?

P: Yeah, I think that it's becoming drier and drier with years. This season, we are lucky because it's been raining. But last year, it almost didn't rain.

I: So, can you remember a similar drought like the one from last year before?

P: No. I can't.

[João, young adult resident]

Corroborating the findings of government documents and academic sources on the localized effects of climate change in Lobata, residents spoke of growing extremes in terms of droughts and rainfall:

For me, climate change is the change of climate and I think that the main effect that it has on the community is increased poverty because (...) in the past, we normally put the maize in the ground and it normally grew and we were able to take a lot of maize from the field. Last year, it didn't rain. We couldn't take maize from the field. Now, it's raining a lot. It's raining too much. And the fields that are not on slopes, they fill up with water and the maize doesn't grow.

[Sérgio, young adult resident]

While the altered rainfall regime is problematic for the farmers without access to water, low precipitation poses a serious issue also for those whose fields lie in the vicinity of irrigation channels:

I've noticed a little bit of this that you've talked about. Last year, on the 7th of August, I sowed maize in my field that had a channel. (...) And even with the channel, the water didn't pass. So, it didn't have enough water to pass in the canal. And the maize that I planted didn't grow well. From 100 percent of the [maize] that I planted, only 40 percent grew.

[Eugênio, adult resident]

And while most residents do not seem to understand climate change in terms of a planetary process driven by an increasing concentration of greenhouse gases in the atmosphere, they occasionally make the connection between the lack of rain and deforestation in the region:

I heard about climate change problems. And I'm feeling its effects day by day. And I am 60 years old. In the past, when I was younger, [in] the country, [it] used to rain more than it's raining now. And I think that this is because [of] the cutting of trees that is reducing the quantity of rain and is helping the climate to change. It's making the effects of climate change worse. And the people who cut trees and destroy the environment have to be held responsible because when you take trees from the forest and don't plant, you will have less trees than you had before. And this is not good for the environment and the country as well.

[José, elderly resident]

The association made between deforestation and decreased rainfall is hard to establish scientifically, but in the opinion of a government official from the National Institute of Meteorology (INM), the practice of cutting down trees may have a certain impact on local microclimates. Whether or not that is the case, it is possible that attributing climate change to local deforestation may lead to local conflicts between subsistence farmers and charcoal producers and illegal loggers. At this time, however, no signs of such a conflict seem to exist in Liberdade.

While discussing droughts, the residents also spoke about what exactly these mean for them and their families:

The drought means for me big poverty. Because without the rain, we don't have production. If we don't have production, we don't have income for our families. That way, we will have hunger.

[João, young adult resident]

The decreasing and erratic rainfall in Lobata is not the only issue local farmers need to contend with. CIAT (Center for Agronomic and Technological Research) has identified a range of diseases and infestations affecting the crops in the community, including the decollate snail and the banana root borer, various fungi species of the *alternaria* genus, and mites and slugs, which affect plantains, tomatoes and beans, and various species of peppers, respectively (CIAT, 2016). However, it is the infestation of maize crops by what the interviewee below referred to as "the caterpillar" and identified by CIAT as the African cotton leafworm (*spodoptera litoralis*) that is wreaking havoc in the local fields (CIAT, 2016):

P: In the past, we used to have, for example, maize *all* around the community. A lot of it. Planted and dried to prepare for

selling. But now, we have another problem. It's this insect, the caterpillar that's affecting the plantation. It's not just the rain but also the caterpillar.

I: And what's the problem with the caterpillar? Is it new? When did it appear, first?

P: This caterpillar started like two harvests ago. And we lost the most part of the maize plantation not because of the drought, but more because of this caterpillar. And it's not just affecting the leaves of the maize, but also the maize itself. It's something that gets inside very deep and it's difficult to see if you look at a[n ear of] maize to know that it has an insect [inside].

[Rita, elderly resident, emphasis in original]

Rumor has it that the insect, previously unseen in São Tomé and Príncipe, has been accidentally transported to the archipelago a couple of years ago along with a load of imported maize which was then distributed to farmers through agricultural extension services. The success of this invasive species has been attributed by several farmers to climate change, itself:

I: Where did they come from, do you think?

P: I think it's because of the climate. This situation never happened in the community. So, I think the drought is one of the main reasons that we're having the attack of insects. And I think that climate change [has] a role in these events.

[Samuel, young adult resident]

The droughts bring plagues. And even if you have irrigation in your field, you are not able to produce much because the insects attack your plants and you [end up harvesting] the same quantity of product that you would without the rain. Because the rain cleans up the plants and takes the insects off the plants.

[Fabio, young adult resident]

The relationship between the African cotton leafworm's rapid expansion in Lobata and local climate impacts has not been established scientifically. However, the connection made by the farmers quoted above was also suggested by one of the project reports (CATAP, 2016).

Thus, smallholders in Liberdade are faced with a range of compounding

environmental issues, and an employee of the Ministry of Agriculture who is very familiar with the farming situation in Lobata, summed up the area's agriculture-related problems as following:

Some problems that we had because of this climate change in Lobata was drought. (...) And the attack of caterpillar that we are feeling a lot in these days. But there is another, another factor, other factors that make agriculture difficult in Lobata, like... the inclination of the soil, a lot of rocks in the field... And so, (...) we are having problems in maize production because normally, (...) the farmers wait for the first rain to come, so the seeds can germinate. But we are having less rain and even the farmers that are able [to plant and see the] seeds germinate, they are being attacked by caterpillars.

[Agueda, CADR employee]

In addition, residents complain about not receiving sufficient assistance from the state, particularly in times of hardship, as explained by one of the farmers:

He said the state didn't do anything during the drought last year. And that they don't provide farmers with new seeds to diversify their crop selection, which is clearly an expectation there. Farmers have to buy those on their own or preserve around 25 percent of their maize crops for the planting season.

[Field notes, 4 May 2016]

What needs to be recognized at this point is that due to cultural and historical forces, farming is a gendered occupation in Liberdade. First, the division of labor results in women being chiefly responsible for domestic duties, such as cleaning, cooking, doing the laundry, fetching water, and looking after children, while the men are expected to work in the field.²³ This also has roots in the traditional division of labor in the plantations, where women were usually circumscribed in their activities to breaking down cocoa beans with a machete, while men were responsible for lopping the cocoa trees and shade trees as well as harvesting the pods (Seibert, 2006). One side effect of these cultural-historic dynamics is the fact that women are predominantly responsible for the sale of local products, most commonly maize. Selling is, next to farming, the main occupation of many women in Liberdade. Maize can be sold in three varieties with

²³ This, however, is not a clear-cut division. There is a good number of female farmers in Liberdade, especially among older and single women.



Picture 17. A dirt road leading to Liberdade from the south. Maize crops can be seen growing along its right side.

the profit dependent on the level of processing: whole kernels, smashed kernels (*milho pisado*), and cornmeal (*fuba*). As mentioned earlier, kernels are smashed using large wooden pestles and logs, which can be done by the seller or outsourced, usually to younger men or children. *Fuba*, the most valuable maize-derived product, is not produced in Liberdade due to the lack of necessary equipment. Depending on several factors, women go to the main market in the capital between one and several times a week. If there is no maize available to buy in Liberdade, they may first go to another community – as far as in neighboring districts – to buy it there and then sell it at a modest profit in the city (see Figure 5). The increased mobility of women in general explains why they are among the most vocal advocates of repairing the road that leads to Liberdade (Picture 17). And while many women’s primary occupation is selling crops, their livelihood ultimately depends on the quantity and quality of agricultural production in the region. An example of this was provided by one of the sellers:

I: And so, you buy maize and you buy sugarcane from here or from the city?

P: Sugarcane, I buy here in Liberdade. But maize, when I'm not able to find it here, I go to Generosa, Neves, Morro Peixe, Guadalupe to find it.

I: Is that more expensive... the price there?

P: It's the same price. But I spend more money because of transportation, in this case *moto*.

[Jorgina, young adult resident]

Since there are only nine motorbikes and no cars in all of Liberdade, and driving being overwhelmingly if not exclusively a male domain, women need to pay more for transport every time there is insufficient production in their local areas. This results in lower income caused by droughts directly and indirectly, through decreased production and elevated transportation costs, respectively.

Thus, combined with poor extension services, limited assistance from the state, and the various environmental impacts – both related and unrelated to climate change – it is obvious that farming in Liberdade is a highly tenuous livelihood, both for men and women. It is in this context that Liberdade has been described as one of the most vulnerable communities in the Lobata district, itself the most vulnerable in the country (UNDP, 2014). This, however, was not always the case – at least to the current degree.

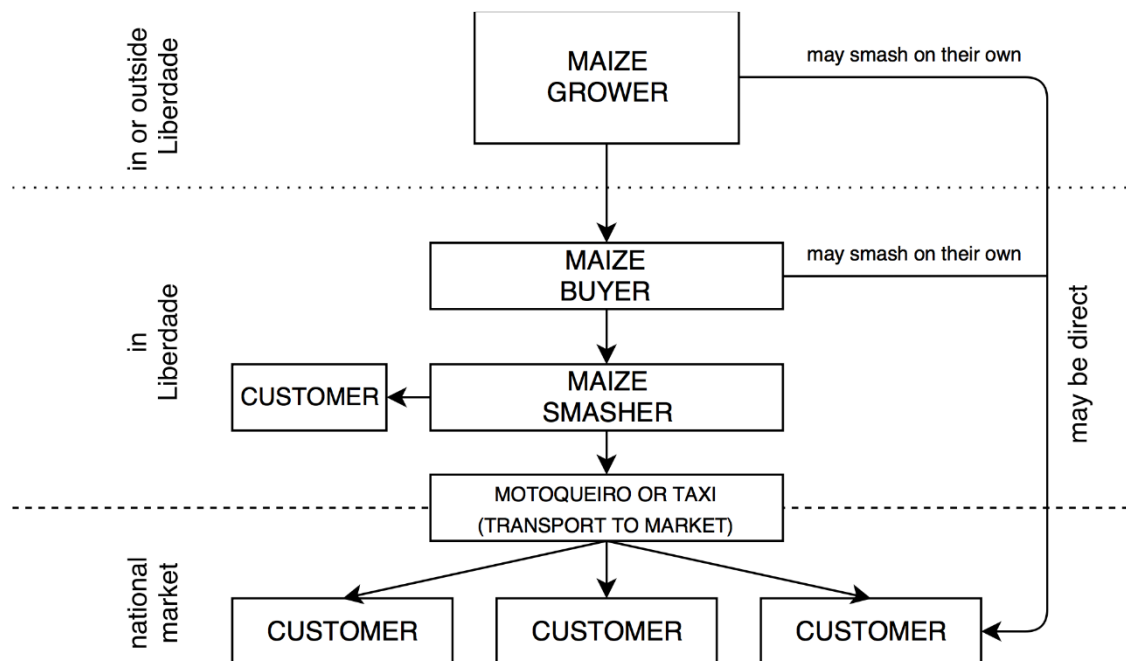


Figure 5. A simplified smashed maize (*milho pisado*) commodity chain.

The elders in particular tend to look at the past with nostalgia. When, sitting on the porch of *casa grande* during a quiet, warm afternoon, I asked one of the oldest farmers in the village about the history of Liberdade, his eyes immediately lit up. He stood up, his eyes tearing up, and made huge horizontal circles over the *quintal*, saying: “Back in the day, it was maize, all maize around here!” He also noted that it used to rain more, and that in the past, the crop’s vegetation period was just 90 days in contrast to up to 125 days today. The older residents disagreed when, rather provocatively, I suggested that perhaps having one’s own plot of land and not having to work for someone else may be better:

They said that back in the day, people had more money. There was a canteen with rice and beans. Now, it’s harder – food is expensive, and who doesn’t work, doesn’t make money. They have pensions but still work in the field to make some more money because it’s not enough. Even before the state took over, the *roça* belonged to Mr. Almeida, a Portuguese who immediately left after São Tomé declared independence. Then, another owner, this time a Santomean, came around, but he didn’t have as much money to invest as his predecessor did.

[Field notes, 7 April 2016]

These stories are corroborated by other senior residents:

I: And you said that [the community is] not as good as in the past. Why is that?

P: Even though in the past we used to work a lot, we had many possibilities. For example, we used to have a shop in the community where we could take products from (...) without payment or direct payment. We could [say]: “Okay, I will take this, this, and that, and I will pay at the end of the month.” And now, we don’t have this possibility. We used to have, for example if you didn’t have something to eat, we used to have help. And in the end of the month (...), you would pay for that. And now, it’s more difficult. If you [d]on’t work, it’s more difficult to find money, to have money to buy your food for your family. Now, life, it’s more difficult for me. (...) And we used to have a lot of water here. These irrigation ditches, we had a lot of them around the entire community for administration, for domestic use, for agriculture... (...) Women used to clean all the ditches to have water in the community. And now, we also don’t have water.

[Rita, elderly resident]

Clearly, the romanticized narrative of the times long gone by the community's eldest reveals their increasing frustration with the progressing neoliberalization of present-day life in the rural areas of São Tomé and Príncipe. The residents were made redundant by the closing public and private estates and expected to take sole responsibility for their own livelihoods like never before in the nation's history. As mentioned earlier in the chapter, the land reform was not accompanied by much support from the state for the new rural class of smallholders. Instead, they have had to face a myriad of challenges to their new livelihoods largely on their own.

4.6. Local adaptive strategies: crop choice, diversified livelihoods, and *aguardente*

However, local residents have not been waiting idly for assistance, either from the state or development agencies such as UNDP. On the contrary, they have developed their own, autonomous adaptation strategies. Farmers, for example, tend to plant sugarcane – a more water-dependent crop that is also more valuable due to being the main ingredient of *aguardente* – in more humid areas:

Sugarcane needs more water. That's why we always choose the field that has access to water to plant sugarcane. If there is no rain and no water, we will not be able to plant or to collect sugarcane enough to produce *aguardente*.

[Elodia, young adult resident]

The preference of farmers is thus to forgo a maize harvest rather than a sugarcane harvest. In addition to strategic planting, farmers also seek to diversify their crop selection:

[T]he drought affected a lot the district of Lobata. And because of that, there was no production. Not only for me but a lot of farmers in the district. And that's why I planted not only maize but I put another plants in the field because if one doesn't have production, another maybe will, and this way I can get something from the field.

[José, elderly resident]

Crop diversification, however, is a relatively limited practice due to most farmers not being able to afford the seeds and the lack of sufficient extension services. The farmer cited above is among the wealthiest residents of Liberdade. Others often rely on family support in providing additional seeds:

Last year, I wasn't able to take from my two fields. I wasn't able to take more than 15 liters of maize. (...) So, and that maize was too small and I wasn't able to plant it. And I had to ask my brother to give me some seeds to sow.

[Elodia, young adult resident]

Thus, crop diversification is not a viable option for the people with little money or family support. In addition, most of the interviewed residents admitted having secondary or even tertiary occupations, an entirely unsurprising development given the area's high poverty levels and reliance on rain-fed agriculture. Livelihood diversification – while burdensome and time-consuming – has been a necessity for most residents. Both women and men often complement their income through the sale of *aguardente*. There are also four small shops in the village, providing the owners and their families with an additional source of income:

I: And is it, is the shop or the business, more important than the field right now, or is it the same, or...?

P: Both activities complement each other. When the land doesn't give enough money, the business does. Or when the business doesn't give me money, I have the land to sell products that I produce.

[Graciela, adult resident]

These shops sell a limited selection of foodstuffs (such as pasta, dried salami, sugar, or rice) as well as beer, wine, and other basic necessities. There is also a small number of fishermen in Liberdade. While the village is not located on the coast, the beach is a 25-minute walk away. However, the fish and octopuses caught by the fishermen – who instead of using nets dive underwater with harpoons – are consumed locally rather than sold in the market (Picture 18). The same can be said about the limited practice of animal breeding (mostly pigs, ducks, and chickens). A common strategy is selling labor, in the case of women through offering domestic help such as doing the laundry. Men tend to prefer paid agricultural labor, either in Liberdade or in the neighboring communities. In general, livelihoods are made up by a collection of different minor and low-paid occupations:

We must try everything. For me, for example, I have a small business. *Aguardente*... We produce to sell it. Also, when there is no money, I also dry bananas. Even when they are too green to sell, we eat them. When they're good enough, we sell, earn

the money to buy fish. When there is no fish, as I said in the beginning, I plant also leaves, the traditional leaves (...) used to prepare meals. So we try. [Those] who have animals, also use them to eat or to sell. We try everything.

[Rita, elderly resident]

The high diversity of occupations in the village demonstrates the creativity and steadfastness of Liberdade's residents in providing for their families given the difficult economic and environmental circumstances of the country. Their resourcefulness testifies that they are not passive recipients of aid, as many development and government professionals tend to believe (a theme discussed in later chapters). On the contrary, given the adversities they face on a regular basis, they have successfully preserved their agency despite the failure of the state and the development community to assist them in any meaningful way.

That said, it should be noted that the adaptive strategies implemented by the residents of Liberdade resemble short-term coping rather than long-term transition or



Picture 18. Catch of the day by a Liberdade fisherman.

transformation into a more sustainable paradigm (Pelling, 2011). Undisputedly, there is a need for change in the way local livelihoods are currently arranged in the village, as the present situation can be easily exacerbated by the intensifying climate impacts. In that kind of scenario, the most precarious households are bound to be hit hardest. For example, in the year preceding fieldwork, Lobata had been struck by a drought that severely affected local production, causing many farmers – and particularly those without access to irrigation – to lose most if not all of their maize crops, and forcing them to find alternative, and often even more tenuous, sources of income.

Aguardente: Liberdade's key to adaptation?

Out of the alternative livelihood paths described above, the production and sale of *aguardente* requires additional consideration, as it is by far the most significant adaptation strategy adopted by Liberdade's residents (see Figure 6). Sugarcane is one of the few local crops whose current condition the government has assessed as “stable,” despite its genetic deterioration and the resulting low saccharide content (CIAT, 2016). In addition, because local distillers do not use yeast in the production process, *aguardente* from Liberdade enjoys a good reputation in the country. Therefore, it is hardly a surprise sugarcane cultivation has become the backbone of local farmers' livelihoods during periods of hardship:

I: So, during the drought, you can't work in the field. What specifically do you do to get more income? What activities do you engage in?

P: I don't know how to answer this because we never had a strong drought. So, even [given] the situation that I live until now, I was able to, even in the dry season, I was able to take sugarcane from the field and make *aguardente* to sell.

I: And selling *aguardente* was the only way you made money?

P: In terms of agriculture here, this is the only way. To produce and sell *aguardente*. There are other people who do other things, but people who live only from agriculture, the only way to survive a drought is selling *aguardente*.

[Samuel, young adult resident]

Aguardente requires at least 8 days to be produced, which is due not so much to the intensity of labor involved as to the time required for the fermentation process. Once

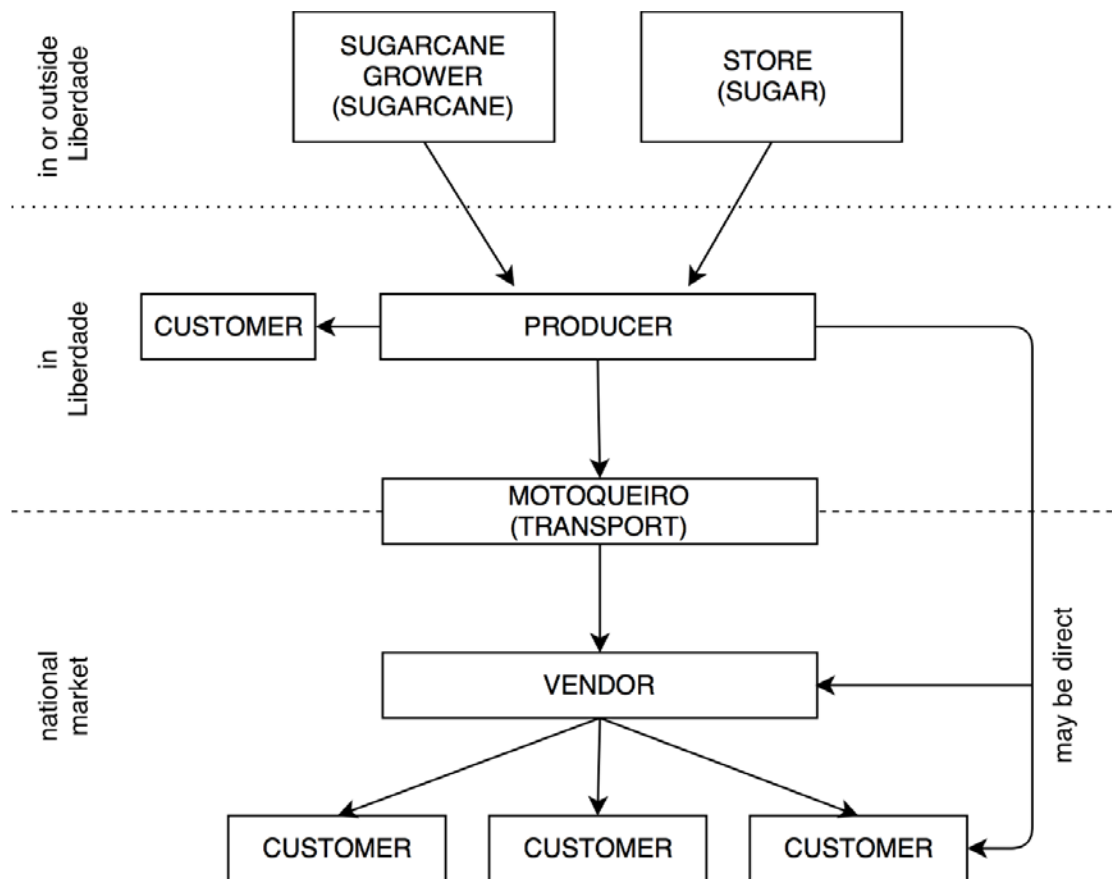


Figure 6. A simplified *aguardente* commodity chain.

sugarcane is harvested, it is taken to one of the four gasoline-powered sugarcane presses on the outskirts of Liberdade (Picture 19). There, the stalks are pressed several times to obtain white, sugar-rich juice, which is then fermented in a large cask with the addition of sugar (Picture 20). After several days, the mixture is boiled using locally sourced firewood, during which the alcohol travels through metal pipes into another cask with cold water. There, it is distilled into a liquid, and collected into large bottles ready for sale.

The advantages of growing sugarcane and producing *aguardente* are numerous. Sugarcane does not require as much care from the farmer as maize does. Moreover, maize harvest occurs within at least three months of planting, after which it should be sold fast and at the price currently offered by the market. This is because most residents do not have adequate facilities to store their crops, which would allow them to wait for more favorable market conditions. Those who tried to do so often had their harvests spoiled by pests and environmental factors due to improper storage. With sugarcane, production is more stable, delivering produce at more regular intervals. *Aguardente*, being a sought-after alcoholic drink, is considerably more profitable than smashed maize, despite requiring many more production inputs. This is why sugarcane has been



Pictures 19 and 20. Two local men passing recently-harvested sugarcane through the press (above). The liquid is next transported and poured into large metal casks (below), and then mixed with sugar to start the fermentation process.

seen by the residents as a better alternative to maize and other crops grown in Liberdade, explaining why both men and women rely on it in one way or another during droughts. *Aguardente* is produced both by those who grow sugarcane in their own fields as well as by the small group of landless residents, mostly young people, who buy the crops from their neighbors for processing.

That said, there are multiple issues that sugarcane and *aguardente* producers are currently facing. Residents have been complaining about the decline in the demand for the alcohol both locally and in the city, which may be due to increased supply. In the words of a female resident who abandoned the practice four months earlier:

In the past, it was okay. I was able to sell all *aguardente*. But business started to get slower and slower, and I stopped doing it... No-one is buying, anymore.

[Olinda, young adult resident]

Some interviewees suggested that the number of people engaging in *aguardente* production is on the rise, which may be an indirect result of more frequent droughts and local residents seeking alternative sources of income. Relatedly, it is becoming ever less profitable. As already mentioned, there are many costs associated with producing the alcohol. These involve the purchase of sugarcane from local farmers (if the person does not grow it in their own field or simply does not have one) and sugar from the local store (those who cannot afford to travel buy it in Liberdade at a premium price). The distiller also has to pay for the use of the sugarcane press and, sometimes, for storing the sugar liquid in other people's casks. Importantly, the presses do not belong to Liberdade residents and are instead owned by townfolk, who make them available for a fee. Considerable amount of time is also required to collect the necessary amount of firewood to start the distillation process.

Aguardente can be sold both locally and outside the community, but given the extremely small market of the village, most producers rely on the services of vendors (or intermediaries) who act as their distribution networks:

[The farmer] cuts his sugarcane, makes *aguardente*, takes it to the customer, the lady who sells it (...) has three or four people who sell for her. If I don't have money here, then they'll have it here. If they don't have it here, they have it there. And so... Because if I have only one person to sell, then I don't have money. You have to arrange two, three people to deliver *aguardente*. If you, Michael, don't have money to give me now,

I'll go to another customer. I need money – okay, come. And I'm already protected here. You see? It's to survive. Very little, to survive.

[Samuel, young adult resident]

Thus preferably, an *aguardente* producer will have several different contacts in the city, increasing their chances of securing profit on an ongoing basis. Importantly, *aguardente* is sold on consignment, meaning that the producer receives the money for the product only after it has been sold. This practice puts disproportionate burden of risk on Liberdade's distillers.

Life is difficult. Very difficult. For example, now I'm not doing anything because the client I gave *aguardente* to sell hasn't given back the money. So I'm still waiting for the money to buy sugar to produce again. As he hasn't given me the money, I [can't] buy sugar and continue production.

[Elodia, young adult resident]

Unsurprisingly, the relationship between producers and vendors is often very difficult, with the latter frequently renegeing on the informal contract between the two:

I: And *aguardente*, do you sell it here or in the city?

P: I sell it here, or I send it to Neves, or Porto Alegre, or even Príncipe. But it's not always easy to receive the money back. If I go to Neves now to ask for money, they will say: "Ah, it wasn't possible to sell everything." And I know that they did, but they probably use the money to do another thing... Yes. And it's like this. I try Neves, I try Porto Alegre, Príncipe... And here in the community, also.

[Rita, elderly resident]

When asked about why she would not report the matter to the authorities, one of the interviewees quoted above responded:

P: It happened a lot. I have a lot of money that I lost because they never paid me back. Now I changed the vendor.

I: And there's nothing you can do with the authorities to ask for their help, to get that money?

P: I don't like it...

[Elodia, young adult resident]

Poor law enforcement, combined with young women's subordinate position within local communities, in general, prevents them from seeking formal resolution to the exploitative relationship with vendors. In addition, because local residents value peacefulness and avoid open conflict, such a move would most likely be viewed unfavorably by the neighbors. However, it is important to note that both men and women have complained about *aguardente* vendors not keeping their promises.

The control of the means of *aguardente* production and of its distribution networks by urban elites results in the villagers entering a relationship of dependency with wealthier and more powerful outsiders, exacerbating their already precarious livelihoods. The already-mentioned exploitation by the intermediaries places additional burden on the most vulnerable actors in the entire commodity chain – local producers – who are left with no profit if *aguardente* does not sell or is sold without their knowledge. However, these are not the only issues recognized by the residents in the context of *aguardente* production. Many of them are aware of the ethical problems the increased reliance on alcohol distillation may entail:

[T]he way that we are working now, we don't like very much because we produce [it]... Sometimes people lose their lives because of drinking, they start drinking *aguardente*, and drink a lot, and lose... and lose life because of drinking. And we, that sell the drink, we feel bad about it. But if you could process and sell [it] in the [city] market, like, I don't know... It would reduce the number of these problems.

[Eduardo, adult resident]

The above considerations suggest that the cultivation of sugarcane and the distillation of *aguardente*, while considered attractive adaptation strategies by Libertade residents, may not be a feasible long-term solution for their vulnerability to droughts. Moreover, firewood collection, just as charcoal production, is bound to accelerate the process of deforestation, which – in addition to its potential effects on the local microclimate – may lead to natural resource conflicts in an otherwise relatively peaceful community. Furthermore, the falling demand for the product, the ownership of key equipment by outsiders, and the social impact of excessive consumption could also result in maladaptation, where the vulnerable become even more vulnerable at the expense of those who are better off. Thus, the production of *aguardente* has a side effect of exacerbating the dependency of poor and marginalized people on wealthier and more powerful individuals. The same can be suggested with regards to agricultural labor and the reliance on family support, which in the case of women may translate into a chronic

dependency on formal and informal partners. Adapting to climate change in Liberdade is thus a highly political process (Eriksen et al., 2015; Taylor, 2014), and should be approached as such by any development actor determined, at the very least, not to exacerbate further the existing relationships of uneven power, exploitation, and dependency.

As will be demonstrated in the chapters to follow, the post-political condition of adaptation governance on the island exemplified by the UNDP project ignores this political nature of adaptation in Liberdade, with serious consequences both for the initiative and the village, itself. The next chapter will interrogate the adaptation project in greater detail, exploring the discursive manifestations of post-politics.

5. Problematizing climate change and justifying intervention

As I argued in Chapter 2, the post-political condition of adaptation governance can be understood as constituted by three distinct yet related processes: the dramatized representations of climate change and people, the techno-managerial approach to problem-solving, and manufacturing of an adaptive consensus. In line with this analytical framework, the remaining empirical content of this thesis has been divided into three chapters. In this one, I discuss the dramatized representations of climate change and local people that have been identified in the context of the adaptation project in São Tomé and Príncipe. This discursive component is necessary to understand the context in which the project has been conceptualized and the way in which it has so far unfolded ‘on the ground.’ In Chapter 6, I will seek to demonstrate how exactly the techno-managerial nature of adaptation to climate change is manifested in the design and planning of the studied adaptation project in São Tomé and Príncipe, with a focus on the institutions involved (UNDP and its national partners). I do so by investigating the various elements of the adaptation project that render it, as I argue, an explicitly depoliticized enterprise. In Chapter 7, I turn my attention to the localized effects post-political governance has for the community of Liberdade through the construction of a disempowering consensus. This will include an analysis of how the local relations of socio-economic and political inequality, largely ignored and evacuated from public encounter by the project, have affected the spaces of participation created by the initiative.

5.1. The threat and the threatened in São Tomé and Príncipe

A necessary starting point in the interrogation of the post-political nature of adaptation as practiced by UNDP and other development agents is an analysis of the discursive framings of the ‘climate issue.’ This is important because representations of environmental problems as extremely complex and potentially devastating facilitate the relegation of responsibility and authority to technocrats who are seen as uniquely positioned to tackle the challenge (Jasanoff, 2010; Kenis and Lievens, 2014; Swyngedouw, 2010).

Apart from formalized agreements on reducing GHG emissions and providing a global climate finance architecture to facilitate mitigation and adaptation in developing countries, the global climate negotiations have produced a sense of urgency to form a concerted, planet-wide response to the impending climate impacts (Chaturvedi and Doyle, 2015). There appears to be a ticking clock in the global collective mind, which is

inexorably counting down the time to a defining moment after which humanity's fate will be forever altered by a climate disaster. While problematic, this is a very powerful discursive *dispositif* used more or less deliberately to mobilize action (such as transfer of funds or technology) by a wide range of actors to stop or at the very least slow down the negative impacts of climate change. However, this discursive framing of climate change is not limited to global negotiations, media reports, or grassroots organizing. As a travelling idea, it is picked up by, among other actors, regional and national offices of development organizations and state agencies, and subsequently internalized into their daily operations (Weisser et al., 2014). The local disaster-laden imaginaries of climate change are thus an extension of the global-level discourse, which is perpetuated by a range of actors in the public domain, including governments, NGOs, and business players for a myriad of particular interests across scales. Importantly, it is within this institutional environment that climate change adaptation interventions like the project in São Tomé and Príncipe are embedded.

In order to demonstrate how climate change and the need to adapt to it are both represented at the institutional level, the following section will analyze the interviews conducted with development professionals in Ethiopia and São Tomé and Príncipe, the two countries where the adaptation project gained its current form. The dataset combines the 34 interviews with development professionals and UNDP employees and their partners, and presents the results here in aggregate. The reason for this is the fact that project staff forms part of the epistemic community of development practitioners in Ethiopia and São Tomé. As such, their perceptions of climate change are likely to reflect the views of the broader professional group in their respective countries. This analytical section will conclude with a closer look at the documents and other materials pertaining to the São Tomé and Príncipe climate policy and the adaptation project which, as it will be demonstrated, also tend to include disaster-laden portrayals of climate change.

Development practitioners vary in terms of the way they frame climate change and the associated impacts on the countries in which they work. For the ease of analysis, each interviewee's attitude towards climate change as a policy imperative has been assigned a value between 0 and 3 (non-urgent, serious, urgent, and alarmist), with zero signifying no sense of urgency with regards to climate change and three marking the opposite extreme where the participant used language that portrays the changing climate as an impending disaster or catastrophe.

Out of 34²⁴ development professionals interviewed on the topic in both São Tomé and Príncipe and Ethiopia, only one participant – an employee of a São-Tomé-based NGO – expressed skepticism towards prioritizing climate change as a major development challenge in São Tomé Island. While acknowledging that climate risks are real and should be addressed, he also recognized that the reason for the current proliferation of climate change-related interventions may be due to the global momentum of the issue among donors:

It looks like now, it's climate change. And since funds are available for climate change, we're all gonna work on climate change. (...) I am not saying that it is not relevant to do training to the local authorities on climate change. On the contrary, I think it's very relevant. But probably it's there because climate change is now in fashion... it's a trendy thing to do (...).

[Fernão, NGO, São Tomé]

In this context, climate change can be said to compete for the attention and financial resources of global development donors. In São Tomé and Príncipe, which suffers from a broad range of socio-economic issues, including low levels of education and healthcare or high unemployment rates among the youth, this can cause a disruption to business-as-usual development operations (UNDP, 2014). Local NGOs that have been working on such issues for decades have now been confronted with a new problem by their donors – the need to adapt to climate change – that in many cases may not be compatible with their missions and ongoing activities. This policy conflict is a reflection of the theoretical debate about the potential competition for funds or other resources between climate change adaptation and the more traditional development policies, programs, and interventions (Ayers and Dodman, 2010; Fankhauser and Schmidt-Traub, 2011; OECD, 2012).

However, this view remains relatively isolated. Out of the remaining 33 interviewees in both São Tomé and Príncipe and Ethiopia, the responses with regard to the nature of the climate change threat have been coded as serious (n = 14), urgent (n = 10), and alarmist (n = 9). The first group of 14 professionals (including six, or half of the project staff members interviewed on the issue) talk about climate change in terms of specific impacts on developing countries, particularly reduced agricultural productivity due to droughts, sea-level rise, declining fisheries, destruction of

²⁴ While the total number of practitioners interviewed for the purposes of this dissertation was 36, two participants were excluded in this case, as they were not asked to provide their opinion on climate change.

infrastructure, climate-related diseases, and ecosystem failure. While they acknowledge that these impacts are serious, they do not adopt a language that could be interpreted as urgent or alarmist. This attitude is captured well by the response of an employee of a development NGO in Ethiopia, who conceptualizes climate change as a risk for the country's agricultural productivity:

Climate change means a lot for developing countries. Simply because developing countries and local communities are highly dependent on their natural environment and on their natural resource[s]. Most of them are living on agriculture, be it for... a source for food, for sale, and even if you take countries, in developing countries, most of them get export earning[s] from [the] sale of agricultural products. So, (...) these natural resources as you know are dependent on the existing climate and weather conditions.

[Ezera, NGO, Addis Ababa]

Similarly, the following is how a UNDP staff member presented the issue in the specific context of São Tomé and Príncipe:

[W]e can see that there is some climate change already here, in São Tomé, at the community levels. So, (...) São Tomé normally has two seasons; the dry one and the rainy one. The dry one is from June and September and the rainy one from October until May. And so, we can say that more and more the rainy [season] is decreasing, and there's more and more inundation in some communities such as Santa Catarina or Ribeira Afonso.

[Inês, project staff member]

Here, climate change impacts such as an altered rainfall regime, more frequent and severe drought episodes, and flash floods lead to lowered agricultural productivity for farmers who rely on the stability of the local ecosystem for their livelihoods. The separation between human and natural worlds here translates into a conceptualization of climate change as a disruptive force likely to undermine food security and increase poverty levels in the affected regions, countries, and local communities. As the quote above demonstrates, another frequent impact cited in the case of São Tomé and Príncipe is, not surprisingly, sea-level rise, which is said to pose a hazard for the country's coastal population. However, while climate risks are certainly acknowledged here as serious, rather than adopting a disaster-laden language, participants in this group display a more positivist, analytical approach towards the problem. As such, they identify

negative biophysical impacts as the root causes of the climate problem, and explain the various ways in which they will affect the local population and the economy.

The second group of participants (n = 10) adopted a more narrative approach to describing the impacts of climate change, which, however, is still short of the alarmist tone one can observe during, for example, COP negotiations or the surrounding civil society activities (Kenis and Lievens, 2014). Practitioners classified into this group use phrases such as “climate change is not a joke” (Joaquim, government agency, São Tomé), “for us, [climate change] is not just a word” (Elias, NGO, São Tomé), “the urgency that this is really happening” (Mebrete, government agency, Addis Ababa), “vulnerable communities are feeling it everywhere” (Ernesto, international organization, São Tomé), or “we will live in a future (...) [with] less water and more people to feed” (Danilo, international organization, São Tomé). There is a marked difference in the way these participants narrate the climate threat compared to the first group. While in this case they also identify concrete climate-related threats to the economy at large, they go a step further by adopting discursive strategies that create a sense of urgency which calls for a swift and tangible response to the climate change issue.

This is related to the last group of nine development practitioners (including one project staff member), who are arguably the most concerned about climate change and its impacts among all the interviewed individuals. These participants’ responses are the usual targets of constructivist critiques of climate change adaptation and mitigation (Chaturvedi and Doyle, 2015; Swyngedouw, 2013a, 2011b), in the sense that they most visibly create “doom-laden” – in the words of an interviewee – representations of the issue. Emblematic of this perception is the view of the director of a development NGO’s branch in São Tomé:

I just see it as a matter of life and death. (...) So, it is, for São Tomé to continue to develop, and certainly to have a future, there’s a need for them, for us, to look at the, the changed process that is happening now. And see how we could adapt, adapt and plan (...) so that we don’t... we don’t... we are not left behind. (...) The problem is if we are not... if we don’t do anything now, to start cutting it, São Tomé might be in for a big surprise. It may be too late.

[William, NGO, São Tomé]

Themes of life and death, catastrophic representations of the post-climate change future, and calls for adapting to climate change as an obvious condition for survival, with a rapidly approaching deadline to do so, intertwine within this group of responses.

It is evident from the frequency of these responses (nine out of 34) that catastrophic imaginaries of climate change impacts are well-established within the development circles both in Ethiopia and in São Tomé and Príncipe. Combined with the second group described above, practitioners who explicitly describe adaptation to climate change as a matter of urgency constitute over half (19 out of 34) of the interviewees. This, as will be shown below, has significant consequences for the ways in which countries and organizations, including UNDP, select and implement strategies aimed at preparing rural populations for the anticipated negative climate impacts.

The sample of 34 development practitioners from NGOs, aid agencies, and government agencies from Ethiopia and São Tomé and Príncipe provide a snapshot of the current perception of the urgency of climate change among professionals engaged in development and adaptation interventions. In complement to these findings, what merits a closer look are the representations of climate change contained in the official documents required by the Santomean government for submission to the UNFCCC Secretariat as part of the Convention process. These institutionalized views are equally important not only as formalized interpretations of climate change by the state but also because they constitute the basis upon which the country has so far built its response to it (the adaptation project being a prime example of this response). The country's First and Second Communications to the UNFCCC Secretariat have been analyzed for content presenting climate change as a serious threat to São Tomé and Príncipe's prosperity and survival. A similar analysis has been conducted on the available adaptation project documents. The following section will briefly review the findings.

São Tomé and Príncipe's First and Second National Communications were submitted to the UNFCCC Secretariat in 2005 and 2012, respectively (First Communication, 2004; Second Communication, 2012). National communications are documents required for submission by all UNFCCC parties. Non-Annex I countries, to which São Tomé and Príncipe belongs, should include in the document information on GHG inventories as well as the required mitigation and adaptation measures at the national level. The documents list the requested information in chapters concerned with climate change which they depict as a planetary crisis that requires urgent action. Notable are the following paragraphs from the First Communication (2004, p. 4, translated from French):

São Tomé and Príncipe, an isolated archipelago off the coast of the Gulf of Guinea and subject to a world in perpetual change, will certainly not escape the economic, social, cultural, and

environmental upheaval which global climate change will entail. (...) A small island country with a coastal population, São Tomé and Príncipe is put in direct danger of global warming through which the country risks losing more than half of its socio-economic infrastructure.

The references to an unstable and uncertain post-climate-change future are evident, and it may be presumed that the choice of this language had the aim of strengthening the message of the National Communication in the eyes of the Convention parties. The COP negotiations' main narrative has been a constant back-and-forth between Annex-I countries – traditionally reluctant to funnel significant amounts of funds and technology for adaptation and mitigation purposes – and non-Annex I countries that claim to urgently require this kind of assistance. Presenting the country, and indeed the whole African continent as a “victim” [“the African continent will be the biggest victim of the adverse effects of climate change” (First Communication, p. 4; translated from French)] is a discursive strategy used to influence the outcome of global climate negotiations in favor of São Tomé and Príncipe and other developing countries and to put an end to the antagonistic political visions of the post-climate future. This strategy, however, has an important side-effect, which is the perpetuation of developing countries' image as decidedly incapable of delivering effective responses to climate impacts.

The analysis performed on the documents pertaining to the adaptation project has also delivered examples of using this rhetoric, albeit to a lesser extent. The reason for this may be a different audience, which in this case is smaller and limited largely to project staff, partnered state agencies and, in some cases, the donor (GEF). Project documents are, more often than not, effects of bureaucratic necessity aimed to satisfy guidelines related to project monitoring and to help create a written history of project progress (Mosse, 2005). This seemed to be confirmed by informal conversations with project staff who occasionally joked that “nobody reads those documents, anyway” (personal communication). These reservations notwithstanding, project-related documentation makes similar claims to those described by the first group of interviewees (coded as 1 – serious). Here, climate change is again described in terms of its impacts on main sectors of the Santomean economy – agriculture, fisheries, and forestry:

[C]limate change and variability pose high risks for the agriculture production and undermines the possibilities for increasing productivity and income, as well as the food security

of the smallholders who form the overwhelming majority of São Tomé and Príncipe's rural poor and whose livelihoods depend heavily upon natural resources and on such rudimentary and undiversified agriculture (UNDP, 2014, p. 10).

Thus, practitioners and institutions involved in the adaptation project represent climate change as an important challenge for development in São Tomé and Príncipe, to varying degrees. The major result of this representation is the universalization of the need to adapt to climate change, as a failure to do so would have serious implications for the country's future.

5.2. Adapt or perish? The socially-constructed need to change

The previous section sought to uncover the specific discourse employed to evoke the urgency of the climate change threat to countries and local communities in the Global South by the interviewed development practitioners and relevant documentation. This section will build on these arguments and seek to unmask the process of the social construction of the need to adapt to climate change, or the creation of the subjects of adaptation. By choosing to discuss the social construction of the need to adapt, I do not wish to imply that such a need does not exist. The risks posed by climate change in São Tomé and Príncipe are real and serious, as evidenced by the already-mentioned drought of 2015, which caused significant difficulties to smallholders, particularly in the north of São Tomé Island. However, what requires rigorous attention is the way these risks as well as the responses to these risks are presented and justified to those who will be hit hardest by climate change – the poor and the marginalized in predominantly rural environments.

The creation of a sense of urgency about climate change and its impending impacts described in the previous section is precisely how this need to adapt is created. As Chatruvedi and Doyle (2015, p. 13) aptly put it, the securitization of climate change involves “the speculative presumption of future threats and dangers to justify the manipulation of socio-spatial consciousness and policy interventions.” Evident here is the power relationship between those who have the knowledge and expertise on the future impacts of climate change and those who do not. In the case of the former, their authority and legitimacy is supported by scientific evidence in the form of climate models or vulnerability assessments (Jasanoff, 2010). Those lacking such expertise are expected to comply with the recommendations provided because they are considered uninformed about and, consequently, unprepared for the uncertain climate future.

The privileged position of managers relative to local communities embodied by the former's superior knowledge about the state of the climate on Earth is evident in the words of a senior UNDP official in São Tomé talking about the country's smallholders:

So, summarizing, climate change is here. They don't notice. It's been noticed at their pockets, their level of productivity is getting lower and lower (...). They are not noticing it and they do not realize that it [affects] them (...).

[Fausto, senior project staff member]

Interviews with other staff members and development practitioners also revealed a deeply perceived need for local communities in São Tomé to act on climate change despite their low level of climate awareness and preparedness. Through the imaginative geographies of climate change, the country's smallholders are presented as uninformed masses requiring guidance by those who, based on climate forecasting, claim to possess knowledge about their climate future. Common in this context is the theme of vulnerable communities and their fragile social environments, which are expected to collapse once climate change impacts hit. Local communities are not seen as capable enough to respond to climate change on their own, and the interviewees note that in times of hardship, people turn to the government for material help. São Tomé and Príncipe's troubled history, and particularly the culture of the *roça* (plantation), is invoked by interviewees as the usual suspect for this dependency. Presented in this way and stripped of any vestiges of authority, local people in this case cannot be seen as equal partners for the project by its staff because they lack the technical capacity for that role. This making of subjects of adaptation is at the core of the disempowering nature of the post-political condition of adaptation governance in São Tomé and Príncipe.

During one of the routine visits to Liberdade, I was present at a consultation meeting organized by UNDP and its partners, of which the goal was to gauge the community's interest in product processing and to inventory the types and amounts of crops grown there (product processing being one of the main foci of the project). The meeting was conducted in a sizeable shed that easily accommodated around 80 village residents, mostly men. The project staff member from CADR, the government agency responsible for agricultural extension services and one of the project's key implementation partners, started off the meeting precisely by talking about climate change and what it would mean to local livelihoods. She spoke about the need to change and to adapt to future droughts, as otherwise the community would inevitably suffer

failed harvests. The meeting then proceeded according to the agenda. What is notable is the fact that the staff felt the need to justify the project to the community by framing it as a response to climate change. Even though – and perhaps precisely because – the term is almost completely extraneous to Liberdade’s residents, climate change was securitized by the project in order to legitimize its presence and create a consensus on the choice of solutions, in this case – product processing.

This need to adapt is constantly produced and reproduced throughout the life of the project through various sites and events. For example, Figure 7 presents a poster prepared in anticipation of the 1st Climate Change Fair of São Tomé and Príncipe, which was organized as part of the public outreach component of the project in December 2016. The awareness of climate change not just in local communities but in São Tomé and Príncipe as a country at large is generally very low. In order for the project to be better received by its partners and beneficiaries, an event was organized to inform the public about the importance of adaptation to climate change. The need to adapt here is constituted through a discourse of urgency of the kind described above. The title of the poster reads: “Act for Change. The climate is changing, and I’m adapting. Are you?” In addition to a call for individual action by Santomean residents, the poster goes further in creating in its audience a fear of potentially being left behind if they do not act. By doing so, a specific kind of subjectivity is sought to be created in the population of which the goal is to raise awareness about climate change on the one hand, and conceptualize it as a grave issue requiring immediate responses on the part of the citizens, on the other (Agrawal, 2005; Peet et al., 2011).

The above section provided examples of how discursive practices are mobilized by practitioners of development and the staff of the adaptation project to justify the need to adapt to climate change through increasing the resilience of the Santomean society. The imaginative geographies of vulnerability are reproduced in multiple sites by the epistemic community of professionals on the island and beyond. In the case of the adaptation project, this occurs through interactions and experiences in the field, the official documents pertaining to the project, and the various events and activities that occur within its scope, including community consultations.

One of the consequences of the social construction of the need to adapt is an apparent, universal consensus on the imperative of adaptation to climate change in São Tomé and Príncipe, which goes virtually uncontested. Climate change is currently being securitized and added to the long list of challenges for the country’s development, and the need to adapt to it is slowly becoming accepted as common knowledge (Berglez and

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Figure 7. The poster advertising the 1st São Tomé and Príncipe Climate Change Fair. The text reads as follows (from top to bottom): “Act for Change. The climate is changing, and I’m adapting. Are you? First Climate Change Fair of São Tomé and Príncipe. Come and learn what climate change is and how UNDP and national institutions are responding to this phenomenon. Stands by various national projects, debates, cinema, cultural events, art exhibition. Come and participate! UCCLA Room. 5-9 December. 10AM-7PM.”

Olausson, 2014; Eriksen et al., 2015). This consensus is not opposed by the government, which broadly supports any kind of foreign investment in the impoverished countryside and, as will be shown in the next chapter, was the initiator of the adaptation project to begin with. Similarly, local communities welcome any attempts by the government or its partners to better their precarious livelihoods. Unchallenged in this way, administrators, managers, and scientists based in Addis Ababa, São Tomé City, and other spatially and culturally remote places are tasked with designing corrective measures for increasing the country's resilience to climate change. In addition to the climate change fair, this process unfolds through a number of training events on climate impacts for employees of national institutions (UNDP, 2014). This is emblematic of the process Macaulay (cited in Spivak, 1988, p. 77) refers to as a production of "a class of intermediaries [which] must be created to facilitate interpretation between us and them through education," a group used to translate external, scientific knowledge into the language of São Tomé and Príncipe's rural subaltern class.

5.3. The discursive violence of adaptation in São Tomé and Príncipe

The need to adapt is socially constructed and mobilizes to this end an appropriate discourse which presents climate change as a strictly natural threat to human existence. The urgency with which action is to be taken is acknowledged almost universally at institutional levels through commitments to various policies, programs, and projects. Adaptation is considered a serious policy imperative, to the extent that those who object would run the risk of being accused of irrationality or contrarianism (for instance, the interviewee who expressed reservations about the urgency of climate change did so only upon assurances of anonymity). Along this, a parallel process is taking place which concerns those who are, in fact, expected to adapt. Technocrats and managers heralding the advent of a planetary crisis also claim to possess the knowledge on how to avert it. This discursively violent process (Spivak, 1988) has two mirroring manifestations: the Orientalization of local people by denying their knowledge, skill, adeptness, and capacity to face the predicted impacts of climate change on the one hand, and on the other, the construction of model subjects of adaptation able to face the same challenge if they obediently follow guidance from the outside.

5.3.1. Unfit for adaptation: Orientalizing the rural population

Thematic analysis of project documents, interviews, and field notes revealed several main themes around which the discursive process of Orientalization of rural

Santomeans takes place in the governance of adaptation in the country. The most prevalent and at the same time powerful representation of local people from the countryside has to do with dependency and entitlement. During various meetings, farmers are often referred to as feeling entitled to assistance from the outside. Various participants invoked the culture of ‘easy money’ or ‘sluggishness,’ which imbues locals with a ‘dependency conscience.’

Such views are rooted in the broader under-development context of the country which, as discussed earlier, relies heavily on foreign aid in ensuring the delivery of basic social services such as healthcare or education. More specifically, UNDP employees talked about locals expecting to be paid for participation in workshops and training events. Importantly, they fail to recognize that a day spent in the classroom often amounts to losing a day’s worth of income, especially for women who regularly travel to the local market to sell various products. Not only that, certain members of the project team spoke plainly about how people’s work ethic has turned into entitlement over time, which has been facilitated by the proliferation of various projects on the island. According to this narrative, this has caused locals to as far as become ‘specialized’ in benefiting from development interventions. This explains why during one of the workshops during the design stage, employees of national institutions were reportedly advised to refer to the project as a “program,” a strategy suggested to prevent local communities from seeing it as yet another avenue for direct rent-seeking (UNDP, 2015, p. 8).

Related to this broad theme of entitlement and dependency are relatively widespread representations of local people as lazy. During one of the field visits by the team to a rural community in the Lobata district, staff members repeatedly commented on the fact that men and women ‘hang out’ in the village instead of doing work. Charcoal producers are also accused of consistent laziness because they do not engage in the more laborious process of farming – a view that is shared by a number of local residents, as well (see: Mosberg and Eriksen, 2015). Relatedly, local people are rather indiscriminately represented as being addicted to alcohol. Indeed, being one of the main products of Liberdade, alcohol is easily accessible and male residents in particular tend to indulge in *aguardente* consumption. This seems to be particularly problematic for project staff:

[B]ecause you have been to Liberdade, I think you have observed it. You arrive in the morning. Young men and women are drinking alcohol. Eight o’clock in the morning. Oh my god.

What is it? “Don’t you go to the farm and...?” “No, no, no. We are in town... We are in the village.”

[Maurice, project staff member]

Excessive alcohol consumption was cited by three participants working for the project as the reason why consultation meetings could not be held in the afternoon out of concern that residents would be intoxicated by that time.²⁵ However, during the daily visits to the community, this was not as widespread a problem as the above account would seem to suggest. During my time there, I only had one interaction with a local resident who was visibly inebriated, which somewhat negatively affected our conversation. In addition, there were informal reports of a non-fatal motorbike accident in Liberdade which people attributed to the person in question driving under the influence of alcohol.

A final major theme that Orientalizes rural people in São Tomé and Príncipe is their alleged ignorance. Local people are seen as entrenched in their own ways of doing things and with scarce willingness to change. This view is particularly espoused by senior staff members who are removed both socially and geographically from the affected communities. According to a high-ranking UNDP official:

I think often it’s not that communities don’t necessarily (...) know what to do – it’s that they’re either ingrained in what they know and are not sure why that’s still not working, or yeah, they just aren’t exposed to other types of approaches.

[Sally, senior Regional Office employee]

In other words, the knowledge about what is happening, why problems arise, and how to address them is simply believed not to exist at the local level. Here, one of the top UNDP officials spoke of local communities living in their “own realities” which may be far removed from what “we” (people in the development community) are familiar with (O’Brien et al., 2010b). In the case of communities participating in the adaptation project, the project document (usually referred to as the ‘prodoc’ and the key source of reference for the entire initiative) clearly points out a lack of awareness in terms of efficient production techniques, which hinders smallholders’ ability to adapt to climate impacts in the long term (UNDP, 2014). All the above themes converge, or

²⁵ As will be discussed in the next chapter, this was directly against the preference of many of the interviewed community members who work their fields in the morning and do not come home before mid-afternoon.

perhaps result, in an overarching representation of local farmers in São Tomé and Príncipe as lacking capacity and in need of help.

What is often brought up by interviewees is the issue of local knowledge, on which the staff are deeply divided. Views on the importance of local knowledge range from dismissing it as outdated and outright harmful at the current stage of global environmental change to advocating it as a necessary basis for any kind of intervention. Project documents do not mention local knowledge, however, which points to the former view as preponderant in the institutional context of the initiative. As a result, a representation of the ignorant subaltern, an “intractable African” in Lester’s (2002, p. 36) words, is created, as someone unable to deal with the changes in weather patterns. This, in turn, warrants intervention from knowledgeable technocrats who will offer their assistance in increasing the resilience of the imperiled subaltern’s livelihood.

More specifically, the “colonialist move” (Escobar, 1995) of this sort can be said to operate at two parallel scales. It should at this point be clear that the entire adaptation project is rooted in a Western-centric epistemology of the climate problem and is approached using a heuristic of resilience, itself also originating from the same ethnocentric tradition. More practically, the funding for the project rests in the hands of the GEF, a World Bank subsidiary. The conditions of unequal power between the interveners and the beneficiary – in this case the government of São Tomé and Príncipe – are self-evident. However, this more or less transparent execution of Western power and authority over developing countries is, in the specific case of São Tomé and Príncipe and the adaptation project, complemented by a similar dynamic at the national level. The urban-rural division also contributes to a constitution of imaginative geographies of underdevelopment and dependency of the national periphery, or the local communities located away from the capital – the only sizeable urban center on the island. The overall sentiment among many project employees and, it appears, city residents in general is that farmers are lazy and fail to do their share of work in developing the country.

I brought this up with one of the Liberdade residents, saying that urbanites do not believe farmers work enough, to which he responded: “If we didn’t work, how would we survive?” Thus, while the small island nation “subject to a world in perpetual change” is constructed by the dominant discourse as one in need of external assistance, the local rural population is similarly denied its agency, knowledge, values, and arguably humanity both by Western development actors and wealthy and educated Santomeans residing in the capital and far-removed from the challenges of rural life.

It is easy at this point to fall into a trap of gross generalization, whereby spatially and culturally distant technocrats and urban elites mobilize the imaginative geographies of underdevelopment and vulnerability to describe unprepared populations who are awaiting their financial assistance and technical know-how. However, the picture is decidedly more complex. A generalization of this sort would unjustly ignore all those professionals at UNDP and the government that, despite their techno-managerial bend, remain advocates for the local people and do not engage in, or sometimes even oppose, this kind of discursive violence. Interestingly, there is a marked quantitative and qualitative difference in the way low- and high-rank UNDP employees depict their beneficiaries. Representations of rural people as lazy, ignorant, and lacking capacity in general are more prevalent among high-level employees. Low-ranking staff – often the coal face workers who have either day-to-day or otherwise regular contact with the country's rural residents – tend to root their critiques in the practical difficulties that make their work in the field more challenging, such as the lack of interest of many community members to actively get involved in the project. A plausible explanation for this is that through consistent contact with the beneficiaries, they possess a more nuanced understanding of local struggles and, being solution-oriented, tend to discuss more specific challenges related to the functioning of the project, itself.

Nevertheless, the preconceptions and imaginaries of local people among both high- and low-ranking project staff for the most part mirror the representation of the subaltern so aptly captured by Escobar earlier. However, an important caveat needs to be made here, lest the power of this discourse be underappreciated. The Orientalization of local people is not circumscribed to the professionals occupying the various levels of the development community ladder. Neither are they geographically circumscribed at the national level to the city. In fact, they also originate among those who are expected to adapt their livelihoods to climate change, demonstrating the powerful identity-shaping force that is at play here (Kamat, 2014). This was evident in the case of Liberdade where certain members of the community, including the president and other more politically-active residents, spoke disparagingly of their fellow residents as unwilling to cooperate for the 'common good.' Particularly telling in this context are the words of the president speaking about the reasons why Liberdade still lacks many basic services, including potable water:

They didn't bring it because the community didn't cooperate. There was no cooperation. Because if the community understood that it's for the good of the community, for us, today

nobody would be saying there's no potable water. No? That we don't have potable water is not the government's fault. It's not the *Cámara's* [local district's] fault. It's our fault. It's the *mentality*. That's why I said to you, Michael, if we gain this mentality where (...) it's normal that we have to collaborate, unite, and then, we benefit the community... Now, if we don't unite, who will lose out – we will, no?

[Felipe, adult resident, emphasis added]

Throughout the interview, the president referred to the others residents of Liberdade as having a “sick mentality” which makes them unwilling to cooperate with one another, as well as of outright “not wanting development”. This narrative is emblematic of the elites at the community level who tend to create an image of local people, of the subaltern, as incapable of coming together to solve the pressing problems of the community. In doing so, they dissociate themselves from these often marginalized individuals. An elderly resident who remembers the times of Portuguese colonial efficiency similarly expressed his disappointment with how young people, rather than working their fields, cut down trees and produce charcoal because it involves less work and pays quicker. The poorer (and in this case younger) members of the community are depicted as ignorant, uncooperative, lazy, and impatient, making them, in the eyes of their own neighbors, unfit for development and adaptation.

5.3.2. Fit for adaptation: Creating model subjects

The other facet of the discursive violence of adaptation is strictly related to the subjective denigration of local people described above. Just as the beneficiaries are constructed discursively as unfit for properly benefitting from the intervention due to their sense of entitlement, dependency, laziness, alcoholism, and overall lack of capacity, the project and its staff construct a consistent vision of a model subject of adaptation, which has been reconstructed below through an analysis of interviews and various documents.

In short, such an individual would be creative (if not visionary), entrepreneurial, competent, competitive, cooperative, and eager to learn, but at the same time obedient and actively interested and engaged in the project. Not surprisingly, this vision of a model subject of adaptation is advocated particularly by higher-ranking staff members, although other employees also engage in the process to a limited extent. First, an ideal beneficiary is educated both in terms of climate change impacts and the solutions that are needed to prevent climate-related damage from occurring. One of the project reports

speaks plainly of the need for local communities to “reflect” on the concept of resilience so that they are “prepared to protect themselves from climate change and, furthermore, undertake resilient livelihood activities in [their] fields” (CADR, 2015, p. 3, translated from Portuguese). Thus, there is an expectation that locals will conceptualize their livelihood challenges in terms of climate change and resilience, an understanding that is far removed from the reality of Liberdade where most residents do not know what climate change is. This explains the project’s emphasis on climate education and awareness-raising activities. There is indeed an overarching imperative within the project to educate local people on a range of issues, including climate change, agricultural techniques (such as crop rotation), environmental degradation, investment and marketing strategies, conflict resolution, and community governance, with the goal of creating educated and climate-aware subjects (UNDP, 2014).

Lack of cooperation at the community level is cited by professionals and document sources as one of the biggest challenges for the project’s success. Ideally, the argument has it, communities should come together when dealing with outside interventions (or, in other words, mobilize their social capital), and work out a collective interest to increase their bargaining position. In the words of one of the project staff members:

[T]he Santomean people have a problem [because] they don’t work cooperatively. And we should work on this society to make Santomean people work cooperatively because it’s important in the implementation of the project and for the society health.

[Agueda, project staff member]

Notable here is the expression “work on this society,” as it reveals the superior position of knowledgeable and educated city elites in defining what the country requires to achieve development. More locally, project staff members expect villagers to form different kinds of associations— in line with the institutional approaches discussed earlier – including residents’ associations, cooperatives, or women’s groups. The residents of Liberdade have been receiving constant feedback from outside actors on the necessity to cooperate. Otherwise, they are warned, projects may not work properly or avoid their community altogether.

Moreover, the ideal subjects of adaptation should have an entrepreneurial nature that will push them towards “that kind of visioning that you need,” in the words of Fausto, a senior UNDP staff member in São Tomé and Príncipe. This means being able

to identify the problem and actively engage in the search for solutions leading to increased yields and consequently profits. As the next chapter will demonstrate, the reliance on market strategies is well-reflected in the project's approach to increasing local resilience – what is also required, however, is a group of beneficiaries who are willing to adopt them. This goes against the “dependency conscience” mentioned above. Ideal subjects of adaptation do not wait for help from the state – they take matters into their own hands by maintaining their own property, saving money, and investing it in their fields (Kamat, 2014). This is precisely the reason why the project relies heavily on model farmers – usually wealthy and powerful growers who have the disposable income, time, land, and level of education required to successfully engage in the activities implemented on the ground. Not surprisingly, in the case of Liberdade, model farmers are the village president and the ex-vice-president who boast the highest yields in the village.

Importantly, however, a key trait of these model subjects is obedience. They need to be ready to ‘change their ways’ in the face of more droughts in the future. As Steven, a senior staff member at the Regional Office, put it:

[P]eople need to change their practices and their behaviors. Their attitudes to adapt. If a farmer is used to growing maize, and that's not the best crop to grow, anymore, well, he needs to adapt to that. He needs to change his mindset. He also needs to change his food habits. So, it goes all the way down to what you eat.

[Steven, senior Regional Office employee]

Thus, it is expected from local people that they change their mindsets and their diets in line with the advice of technocrats who, unlike the locals, realize the severity of their climate predicament. The consultation meeting mentioned earlier where residents were encouraged to think of themselves as businessmen rather than farmers is another way in which this policing takes place. What happens in an event of non-compliance was evident during one of the field trips to a community where a previous project had failed to deliver sustainable results. Upon realizing that the constructed infrastructure had fallen into disrepair, project staff as far as scolded local residents for their incompetence and lack of community spirit, with some – in the heat of the moment – threatening to call national television to publicly shame the village in the eyes of the entire country. When one of the residents spoke out saying that the project was not designed correctly to begin with, the team was taken aback, not being used to this kind of resistance and staging of equality (Velicu and Kaika, 2017). The overarching

expectation on the part of the project is that its design and the resulting strategies will go unchallenged by local communities, testifying to the post-political nature of the entire enterprise.

Mirroring the themes from the previous section, the imaginary of a model subject of adaptation relies on the beneficiary's capacity to participate in the project. A representation of a dependent, lazy, uncooperative, uneducated, and intractable subject is juxtaposed against an archetype of someone entrepreneurial, cooperative, eager to learn, and obedient. Adaptation to climate change, in this sense, is often seen as more far-reaching and cutting deeper into the landscape that it finds compared to 'traditional' development initiatives. In the words of one of the top UNDP officials in São Tomé and Príncipe:

Because as I said in the beginning, [adaptation] touches [on] the habits, which are difficult to change because they are from generations passed, etc. And it touches [on] property, it touches [on], you know, a lot of other issues that development solutions per se sometimes don't touch [on], because development brings change of one situation to a better one, while adaptation is not only change. It's actually coping with what exists by understanding what could be done if you are willing to change your habits, you know? So, these are... One touches more on *sub-consciousness of populations or societies or groups or tribes*.

[Fausto, emphasis added]

Thus, adaptation to climate change goes beyond traditional development in that it is openly supposed to change the subjectivity of the populations that it targets. Importantly, this subjectivity is of explicitly neoliberal nature (Chandler and Reid, 2016). The expectation of UNDP and the project in general is that farmers realize the threat posed to them by climate change, and start working together to increase their climate resilience through investment in agricultural inputs and collective action. The resulting increase in productivity will then lead to profits, which will act as a social net against climate impacts. In this way, adaptation reproduces an "entrepreneurial ethos" and promotes a form of neoliberal subjectivity (Felli, 2013, p. 352). This specific adaptation path, or indeed a development model, guided by the principles of NIE, is not to be questioned by project beneficiaries, whose alternative perspectives that remain outside the scope of the project are silenced or ignored (Dikeç, 2005; Rancière, 1999).

Of course, the model subject of adaptation described above does not exist. It is a construct that, if real, would make the adaptation project a relatively easy undertaking.

The issue here is that the project is designed as if Santomean villages were populated exclusively by such model subjects. This is not to say that residents do not espouse the above mentioned qualities. Indeed, the neoliberal subjectivity predicated upon the ethos of entrepreneurialism and competitiveness seems to be particularly well-rooted in the opinions of the younger residents of Liberdade:

I: And have you personally talked to anybody from the project staff or the team? What was that like?

P: Yeah, I had a chance to speak with the staff of the project. I studied in CATAP, so I talked with my teacher from CATAP. And he said not to ask for houses because if you have a nice house but you aren't able to earn money from the field, you would be in a big and nice house starving. So, *he said that we should ask for an irrigation system* because even if you live in a bad house, with irrigation, you are able to... even if you suffer from climate change and the drought, you are able to earn something from the field. And this way, you can earn money and possibly build another house.

[Fabio, young adult resident, emphasis added]

As he would explain, he was taught this line of thinking during one of the training sessions for farmers conducted by CATAP (Center for Agro-Cattle Technical Improvement), one of the implementing partners of the project. The participant was thus advised on what he should indicate as his needs by state officials. This points to the ongoing process of subjectivity formation that is taking place in the country, whereby old understandings of rural life are being gradually superseded by more modern, and specifically neoliberal, canons of efficiency and productivity.

Thus, the representations of local people by the employees of UNDP and the government can be analyzed by drawing from post-colonial literature, which sheds light on the discursive violence that is underway in the governance of adaptation to climate change in São Tomé and Príncipe. The effective disqualification of local people *ex ante* from governance based on their perceived lack of political subjectivity and capacity to act as equal partners to the project mirrors similar observations made by many critical scholars in international development studies and post-colonial theory (Ahluwalia, 2001; Cooke and Kothari, 2001; Escobar, 1995; Kapoor, 2011). Here lies the link between this post-colonial critique and post-politics. As mentioned in Chapter 2, Swyngedouw (2010) talks about post-politics as a condition in which participation in the act of governing is

narrowly circumscribed to those who are deemed qualified and responsible, such as experts, NGOs, and – in this case – international development organizations. Those considered irresponsible are excluded from governance. Instead, they are relegated to a position of constant precariousness that makes them unfit to act as project's partners. While the Orientalizing representations of local people deny them their knowledge, skill, and agency, they also paradoxically result in restricting their ability to participate in the project.

This is of great importance. Post-colonial scholars have long argued that discursive violence matters precisely because it has *material* implications (Escobar, 1995; Said, 2003). In this case, the consequence of representing rural people in Lobata and other districts as incapable, undereducated, dependent, and ignorant translates into their effective exclusion from the act of governing. Whether or not these representations are real is not the point. Rather, what matters is that they lead to tangible, material outcomes for those involved. Thus, the post-political governance of adaptation 'accounts for' the local people of São Tomé and Príncipe through an imaginative geography of their vulnerability, and makes it impossible for them to challenge the tenuous 'partition of the sensible' (Rancière, 1999). This is where the post-political techno-managerialism denying locals the capacity to participate and the post-colonial insights on the dehumanizing representations of local people converge and produce a governance configuration that disqualifies those at the bottom of the social ladder from effectively influencing, let alone actively shaping, adaptation decisions. Instead, standardized solutions rooted in neoliberal ideas of productivity, efficiency, and technological advancement are proposed to increase the resilience of Santomean agrarian communities to climate impacts. The following chapter will seek to identify and critically examine these material manifestations of post-politics reflected in the project design.

6. The techno-managerialism of adaptation in São Tomé and Príncipe

Any kind of development project requires a team of managers and technicians to ensure effective design, delivery, and monitoring. The case of adaptation interventions is no different. The goal of this chapter is not merely to describe how the project has been set up and how it has worked behind the scenes. More importantly, I will seek to uncover the specific approach to problem solving that it adopts – techno-managerialism – which imbues the manager or the scientist with significant authority to define the problem at hand and propose the remedial measures (Catney and Doyle, 2011; Chaturvedi and Doyle, 2015; Jasanoff, 2010; Kenis and Lievens, 2014; Macgregor, 2014; Swyngedouw, 2013a). I will argue that these techno-managerial measures, in the context of the adaptation project, are firmly-rooted in resilience thinking. This heuristic, descendent from hazards research and ecology as was discussed in Chapter 2, creates an illusion of a dichotomized human-nature system that has been thrown out of balance and, due to its high complexity, requires careful intervention by experts (economists, hydrologists, engineers, agronomists, etc.) in order to either secure or regain a state of local resilience (Castree, 2005; Luke, 1999; Swyngedouw, 2013a; Taylor, 2014). Here, I will unpack this argument further and confront it with the institutional setup of the project by applying the theoretical insights outlined earlier. First, however, it is necessary to provide additional context for the adaptation project implemented by UNDP and the national government in São Tomé and Príncipe by discussing the institutional adaptation regime in the country, as well as the origins and specifics of the project itself.

6.1. The genesis of techno-managerial adaptation in the country

The analysis of documents, interviews and field notes has revealed one crucial theme – the adaptation project is an expertise-centered enterprise. The professional cohort involved in the initiative is a broad and diverse group of people. Throughout fieldwork, I interacted with individuals occupying various positions within the project's 'chain of command,' from UNDP's top official responsible for adaptation to climate change to an unpaid intern in the organization's Country Office in São Tomé and Príncipe. Similarly, the wealth of documents have revealed the work of people involved in the intervention long before my fieldwork started, namely the team of consultants largely responsible for the early design and the choice of specific solutions. In this eclectic mix of people, some could be referred to as technicians, such as the Regional Technical Advisors based in Addis Ababa who provide high-level technical support to

the projects in the portfolio. Others could be better described as managers who plan and coordinate the project activities and liaise with partner agencies, and others still as scientists who enter the field to take samples of crops affected by diseases.

It is important to underline here that these technicians, managers, and scientists work within a specific framework – a discrete intervention with a rigid budget and deadlines – to deliver the objectives, the outcomes, the outputs, and the activities specified in the project document. The structure of the entire intervention is to a very large extent imposed and controlled by the donor – the GEF. The applying body must conform to a set of rigid templates and deadlines throughout the funding process, which relies heavily on skills and knowledge the national government may simply not have at its disposal. Importantly, failure to meet these deadlines can result in a delay or suspension of funding from the GEF, a potential threat the adaptation project faced in early 2016.

Indeed, the Orientalizing frame mentioned earlier that disempowers developing states and their citizens is embodied into the UNFCCC financing structure, which remains under the watchful custody of the Global Environment Facility, a World Bank affiliate (UNFCCC, 1992). In order to access the funds, developing nations are required to apply through one of its Partner Agencies – the vast majority of which are Western-based. These include organizations within the UN system, the World Bank, and regional banks, as well as global NGOs headquartered in the Global North (see Appendix 3 for a full list). Importantly, restricting the disbursement of adaptation funding to these agencies essentially determines the nature of projects that will ensue (Olowa and Olowa, 2011). While national governments are officially in the driving seat, and in fact this is the point of view presented by most project staff, the Partner Agencies exert a considerable amount of power over the design and implementation of adaptation projects funded by the GEF under the UNFCCC financial streams.

Thus, access to adaptation funding is contingent upon fruitful cooperation between national governments and the GEF-accredited Agencies, constituting a deeply unequal power relationship between the donor, the accredited intermediaries, and recipient countries. While it is the developing state that is required to initiate the funding process under the UNFCCC, its success is largely dependent on its following the expertise of the Partner Agency – in this case UNDP – down the road. In this sense, while projects are expected to be ‘country-driven,’ the perceived low levels of national institutional capacity *de facto* disempower governments in favor of a narrow selection of predominantly Western institutions that speak the technical language of the GEF and

rely heavily on scientific expertise and neoliberal solutions in their problem-solving. This suggests that the current international adaptation funding structure works to further the financial and technological dependency of the former post-colony – seen as incapable of dealing with the ‘climate crisis’ – on its former and more resilient metropole, depriving many developing countries of a potentially meaningful avenue to pursue their own, alternative understandings of what adaptation to climate change is supposed to be (Chishakwe et al., 2012; Fortier, 2010; Pulhin et al., 2010). As such, it can be argued that the very architecture of international adaptation funding channeled through the GEF determines the central role of technical experts in the adaptation process.

As mentioned above, the project in question engaged a high number of people in the process of design and early implementation. Officials from different national institutions at different levels, the identified stakeholders, the UNDP country staff as well as the organization’s Regional Office employees and outside professionals hired to provide technical expertise were all involved in the first stages of the project. As a result, adaptation programming is in large part done by experts who come from the West, have been educated there, or display an Occidental perspective on the issue (Escobar, 2000; Said, 2003). This also applies to the local elites who often receive their education either in the United States, Europe, or – due to linguistic affinity – Brazil. For example, at least three project staff members in São Tomé and Príncipe received their higher education abroad (in Brazil or Western Europe), with others having gained significant professional experience there. As such, they form part of Macaulay’s intermediary class (Spivak, 1988). In practical terms, this translates into an importation of a specific approach to understanding the problem of adaptation and the resulting strategies to facilitate it described below. As it was discussed in Chapter 2, the techno-managerial modality of governance that is explicitly Western in origin is in this way transferred to developing countries as a travelling idea (Weisser et al., 2014).

A study conducted by Scoville-Simonds (2016) suggests that while developing countries are challenging the current governance structure of adaptation funding to gain more control over it, they have achieved relatively little in terms of increasing their participation in high-level decision-making and ‘direct access’ to adaptation finance. Instead, funds continue to be disbursed through traditional development channels, as in the case of the adaptation project, which could only be financed with one of the GEF-accredited agencies acting as a middleman. Therefore, it can be argued that the techno-

managerial mode of governing adaptation to climate change has in many ways been imported into the country through the funding architecture of development assistance.

6.2. The institutional background and structure of the adaptation project

The adaptation project is one of the Santomean government's responses to the adaptation needs it has identified in the National Adaptation Program of Action (NAPA), which itself warrants additional attention. The Santomean NAPA was completed in December 2006. The document provides general information about the country (including its main vulnerabilities to climate change impacts), outlines the policy's mission and objective (which is to identify and provide an implementation strategy for the most urgent adaptation priorities of São Tomé and Príncipe), and describes the methodology used in its preparation (review of existing studies complemented by public participation). However, the most important part of the document is a list of 22 priority projects (or simply priorities) that have been identified as requiring urgent attention at the country level (see Appendix 4). These are grouped into 6 sectors: infrastructure and public works, agriculture, livestock and forests, health, water and energy, fisheries, and public safety and civil protection (NAPA, 2006).

The preparation of NAPAs in the Global South has been financed by the LDCF, and the successful submission of a NAPA is a prerequisite for additional funding through the various UNFCCC financing mechanisms and multilateral aid. In the words of one of the co-authors of the São Tomé and Príncipe's NAPA:

For me, for me, this, this NAPA was something very, very, very useful. Okay? The fact that we prepared our NAPA allowed us to get funding from the Japanese, for example, to adaptation in Lobata. (...) And after that, we get adaptation for [the] coastal zone with the GEF fund, working with the World Bank. And this new lot of projects with UNDP... So, if we were not able to do our NAPA, we couldn't access the LDCF which [is] supposed to assist us in NAPA implementation.

[Joaquim, government agency, São Tomé]

Thus, the NAPA is a key document to a given developing country's adaptation strategy. It allows the government and its development partners to synthesize the existing knowledge on climate impacts in the country and subsequently select and plan the appropriate institutional responses to them. The NAPAs submitted by around 50 developing countries to the UNFCCC Secretariat have given way to a range of

implementation projects funded by the LDCF. These projects can be regarded as the ultimate manifestation of international adaptation governance in local contexts. Every project must be in line with the NAPA. At the same time, their relatively small scale (\$5.4 million, on average) permits them to introduce and test new solutions to adaptation at the local level. These are then to be scaled up through the Green Climate Fund mentioned earlier, which is to provide financing for significantly larger projects in the future. In the words of a high-ranking UNDP official concerned with technical supervision of adaptation projects:

[T]he GEF [with its LDCF] is more of a small incubator, you know? At the GEF, we have four-, five-million[-dollar] projects, three-million-dollar projects, two-million-dollar projects, where you have flexibility, you can try something new, you can do something, test it out, pilot it, demonstrate something. At the GCF, it's a different approach. It's about scaling up. You're immediately in the order of 20-30-50-million-dollar projects and the idea is to scale up tested and tried development solutions. (...) I think the GCF will be a bit of a game-changer in the sense that the magnitude of the fund is something that's never been seen before. Take the GEF, which is *the* biggest fund until now. It has a portfolio, it has a general thing of about 4 to 5 billion dollars (...) over a cycle of 4 years. Alright? The GCF has a plan of 100 billion dollars a year. We're in a *completely* different scale.

[Steven, senior Regional Office employee, emphasis in original]

This context for LDCF projects, including the one studied here, is of key importance. The lessons learned from the initiatives taking place now in LDCs are to determine how the GCF funds will be spent starting in 2020. This is why it is absolutely necessary to scrutinize the local effects NAPA pilot projects are having, especially given the limited empirical research on this issue in places as isolated and vulnerable as São Tomé and Príncipe.

The adaptation project studied here addresses NAPA priorities 6 (reinforcement and diversification of agricultural production), 8 (sustainable management of forest resources) and 10 (construction of infrastructure for protection of vulnerable communities) (UNDP, 2014), and as such is, in essence, an agricultural development project. The initiative aims to increase the resilience of rural livelihoods to climate impacts in a total of 30 local communities in six districts of São Tomé and Príncipe. This is to be achieved by, generally speaking, increasing the capacity of national

institutions in the context of climate risk management, introducing climate-proof infrastructure and resilience-enhancing livelihood practices, and implementing various adaptation strategies at the community level. The program period is from 2014 to 2017 (UNDP, 2014), although as of the time of writing the project had approximately a year of delay.

In terms of institutional origins, the project is in many ways the scaled up version of its progenitor, the Africa Adaptation Program – an initiative undertaken between 2008 and 2012 by UNDP and a number of other UN agencies, and financed by the Government of Japan in 20 African countries with the goal of protecting development gains from negative climate change impacts (Rector et al., 2013). The AAP component in São Tomé and Príncipe, amounting to \$2.75 million USD, was implemented jointly by UNDP and the World Bank (Rector et al., 2013). The planned outputs of the AAP are very similar to the components of the adaptation project studied here. In fact, when asked to provide a historical overview of the adaptation project, one of the key staff members did so by talking about the AAP:

Okay, normally, this project took roots back to 2011. 2011-2012. At that time, we had another project called Africa Adaptation Project (sic), which was implemented in the north district of São Tomé and Príncipe, which is Lobata. And based on activities that were implemented there, the idea was to see how to focus on the resilience aspects of the project because the (...) AAP was looking at climate change issues in those communities, in a kind of global form. And then, we wanted to have a precise intervention, which looked at resilience aspect in those communities. That's where the idea came out because one of the activities that was developed under that project was the development of... a cooperative for farmers. And the idea was for them to do a kind of resilient agriculture. (...) To develop resilient techniques for farmers to make sure that they will cope with the effects of climate change. Then, the project was designed to see how it would be possible to develop the resilience of communities [in] face [of] climate change. Initially, that was the main, the main reason. (...) Yeah. That means, it's kind of... a by-product of AAP.

[Maurice, project staff member]

The relatively broad scope of the AAP has been narrowed in the adaptation project, with a specific focus on the resilience of rural livelihoods to climate impacts. Interesting here is also the narrow understanding of resilience by the participant, which

is to be secured by the adoption of resilient farming techniques at the local level. The first pages of the prodoc thus read:

The overall objective of the project is to strengthen the resilience of rural community livelihood options against climate change impacts in the São Tomé districts of Caué, Mé-Zóchi, Príncipe, Lembá, Cantagalo, and Lobata (CMPLCL).

[UNDP, 2014]

Importantly, while the scope of the adaptation project is significantly more focused, its geographical reach has been extended from one district (Lobata) to the five districts of São Tomé Island (all but the capital district of Água Grande) and the Autonomous Region of Príncipe.²⁶ Indeed, even the number of communities participating in the adaptation project (30) was arrived at by multiplying the number of villages targeted by the AAP in Lobata (5) by the number of districts in which the new project would take place (6). Thus, it is important to note that the adaptation project, itself a pilot, is already a scaled-up version of the AAP. The same participant explained the rationale behind the project in further detail:

And all the countries [participating in the AAP] had a national-oriented implementation. But in São Tomé and Príncipe, it was only [implemented] in one district. And then, other districts were saying: “Come on, people! You see, we need something similar in our district.” And those presidents of districts and other institutions, they thought that it would be necessary for this kind of intervention... to make it in other districts, as well. That way, they came [up] with the proposition and said: “Okay, guys. If UNDP will help us, it will be good for you to do something that will be present in different communities, different localities, different districts. Something national, and something that will answer to the questions of climate change, the way it’s impacting productivity in those different communities.”

[Maurice, project staff member]

Once the appropriate national institutions, in this case the Ministry for the Environment and Rural Development (MoARD), identify the need to formulate a project, the minister sends an official letter to a GEF-accredited agency, in this case the UNDP Country Office in São Tomé and Príncipe, offering a partnership in its design and implementation. Eventually, the letter makes its way to the UNDP Regional Service

²⁶ Água Grande was excluded due to its urban and peri-urban nature.

Center for Africa (Regional Office), where it is evaluated by one of the Regional Technical Advisors (RTAs). Next, the Regional Office – which supervises and provides technical assistance to all the projects in the Office’s purview – sends two representatives to the country for an approximately two-week mission with the goal of preparing a document called the Project Identification Form (PIF). During their stay, they meet with the representatives of national institutions as well as members of the civil society, during which they learn about the ‘national vision’ for the project and discuss the different views and needs with each entity. Towards the end of their mission, they organize an initial validation workshop presenting their findings to the stakeholders. This is a crucial step, as the participants can provide ample feedback to the consultants and even disagree with the proposed project concept. Therefore, at this key stage, the basic architecture of the project is negotiated by different stakeholders. Importantly, this is not yet the stage at which representatives of local communities, let alone individual residents, are usually invited to the table.

Upon their return to the Regional Office, the assigned RTA sends the PIF to the national executing agency for approval, upon the receipt of which an application is submitted by UNDP on behalf of the government to the GEF with a request for further financing. This is the end of the concept phase and the beginning of what is called the Project Preparation Grant (PPG) phase. The GEF normally disburses a relatively small amount of funds – around \$100,000 USD, depending on the size of the project – for the preparation of the prodoc. The PPG for the adaptation project was approved by the GEF in March 2013. Crucially, the prodoc is not prepared by the national institution or UNDP. Rather, its formulation is outsourced to a team of one international consultant and up to three national consultants – independent development professionals considered expert in whatever field the given project is to focus on, such as agricultural development, fisheries, or renewable energy.

The project consists of three components, each with an intended outcome (see Figure 8). Every outcome is then divided into between two and six outputs to be achieved by a rather daunting number of 56 specific activities (see Appendix 5 for a detailed list). The first of the components (“Developing capacities of the key institutions of relevance to rural development and livelihoods”) concerns the development of institutional capacity of the key state agencies involved in the project to support resilience and adaptive measures at the community level. This part focuses heavily on the three main national institutions concerned with agricultural training, research, and extension services. These are, respectively, CATAP (*Centro de Aperfeiçoamento*

Técnico Agropecuário or the Center for Agro-Cattle Technical Improvement), CIAT (*Centro de Investigação Agronômica e Tecnológica* or the Center for Agronomic and Technological Research), and CADR (*Centro de Apoio ao Desenvolvimento Rural* or the Rural Development Support Center). These are also the main implementing partners of the project.

Included in this component is providing material support to the three agencies in the form of equipment (such as vehicles, computers, and research tools) as well as training their staff on a variety of topics, including GIS, climate-resilient agriculture, and livelihood strategies. In addition, the plan is to establish six district- and 30 village-level climate change platforms or committees that would facilitate project implementation. This strong institutional component results from the overarching view that technical and institutional capacity of the Santomean agricultural extension services is extremely low and needs to be enhanced if sustainable outcomes are to be achieved at the community level. Sustainability of projects (or whether or not the activities they introduce continue upon a project's completion) has been a serious issue identified by the interviewed development professionals. Creating a strong network of national-level support to smallholders is supposed to, at least in theory, encourage local communities to continue with the activities introduced by development and adaptation projects well into the future.

The first component is thus focused on providing non-material support to national institutions through technical training and education (with the exception of the more trivial purchases of various kinds of equipment). The second component (“Investments for the protection of communities’ livelihoods against climate risks”) seeks to introduce small-scale, community-managed infrastructure to manage floods, erosion, and droughts, as well as to set up community-level safety nets protecting local residents from negative climate impacts (UNDP, 2014). The component thus involves the construction of terraces and rainwater harvesting infrastructure along with the related irrigation networks, as well as the establishment of nurseries run by women and young people for the production of seedlings used for erosion control. The safety nets to be created are farmers’ associations, food cooperatives, and cereal banks for collectively storing, managing, and commercializing surplus crops, or setting up fish market stands that use solar freezers for increasing the shelf life of seafood products. Thus, this component focuses heavily on introducing climate-proof infrastructure and creating community-level institutions through collective action which are seen as viable strategies for increasing resilience to climate change.

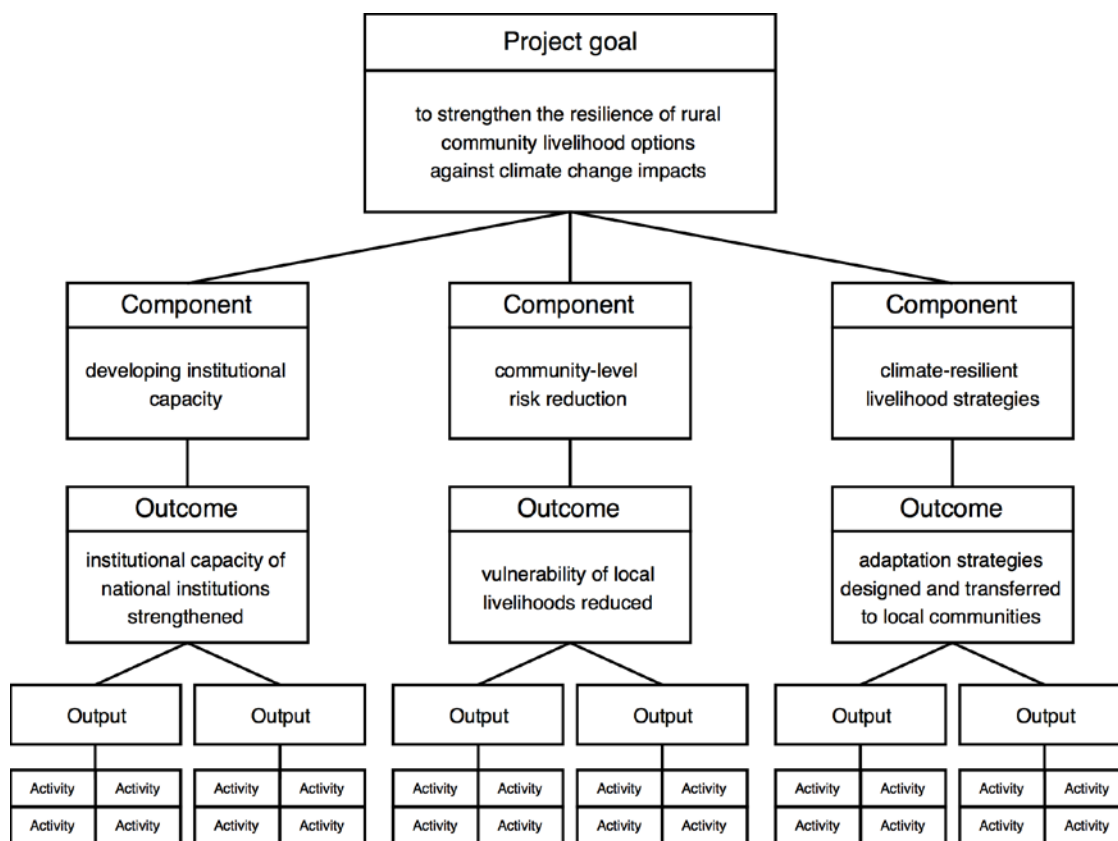


Figure 8. A simplified diagram of the UNDP adaption project showing its various components, outcomes, outputs, and activities. Note: Outputs and activities are shown for reference only, as the diagram does not reflect their actual number. More details are available in Appendix 5. Adapted from UNDP, 2014.

The final component (“Diffusion of climate-resilient livelihood strategies in the most vulnerable communities”) will see the district and village climate change platforms create annual and multi-year adaptation plans (UNDP, 2014). Through these documents, villages and districts are to identify the local constraints and climate-related vulnerabilities, and select and plan the implementation of the appropriate Integrated Adaptation Measures (IAMs).²⁷ IAMs are then to be tested in the field with a strong support from the national institutions involved in the project. The specific adaptation technologies, tools, and mechanisms are to be developed by CIAT and CADR based on the feedback from the communities, and may include composting technologies, climate-resilient crop varieties, pest management, and weed control, among others. In addition, each district will see the establishment of village product processing centers (CAPTs), most likely to be managed by the beneficiaries themselves. These centers would focus on specific value-adding activities, such as arts and crafts, beekeeping, *aguardente* production, or poultry-breeding. Importantly, the beneficiaries are to obtain assistance

²⁷ The project document does not specify what is meant by “Integrated Adaptation Measures” beyond the fact that these will be chosen by local communities. Rather than an attempt at a holistic approach, this term seems to be a transplant from elsewhere, perhaps other projects or policy documents.

in developing marketing strategies for their new products. Finally, the last activity mentioned by the project document is the development of microfinance products for local residents that would support the introduction of the adaptation measures described above. However, the financial institutions in the country, despite several meetings with UNDP and government representatives, reportedly refused to participate in the project due to an excessive financial risk of lending money to rural residents, and smallholders in particular.

It is evident that the adaptation project largely follows the architecture of similar initiatives of this sort funded by LDCF elsewhere. As discussed in Chapter 2, Sovacool et al. (2012a) found that LDCF projects tend to address three kinds of resilience: institutional resilience (e.g. professional training in disaster management), infrastructural resilience (e.g. the construction of climate-proof infrastructure such as dykes and sea walls), and community resilience (e.g. climate education campaigns or social programs). These three types of resilience normally, though not invariably, translate into projects centered on the corresponding three areas of focus. This is also the case of the Santomean adaptation project. In line with Sovacool et al.'s (2012a) study, its three components focus on institutional (Component 1), infrastructural (Component 2), and community resilience (Component 3).

The procedures described above point to the fact that the adaptation project is nested in several institutional environments. As a partnership between the government and UNDP, decisions on its shape and form take place in several important power centers (see Figure 9). At the country level, these are the MoARD and the UNDP Country Office, as well as – to a lesser extent – three executive agencies of the former (CIAT, CADR, and CATAP). Occasionally, local authorities are asked to get involved, as was the case during the community selection stage or upon encountering a serious obstacle to implementation. However, the project is also an international enterprise. The funding body (GEF) is headquartered in Washington, D.C. Perhaps more importantly, however, the liaison between the funder and the beneficiary (the government of São Tomé) is the Regional Office in Addis Ababa, Ethiopia. Any official documents submitted to the GEF must first pass a technical review by the RTAs, who can provide significant input on the shape of the project, as well. As such, the adaptation project ‘straddles’ the African continent and, for its funding, reaches all the way to the distant East Coast of the United States.

From the standpoint of project functioning, the most important contrast can be seen between UNDP’s Regional Office and its São Tomé and Príncipe Country Office.

The Regional Office:

serves UNDP's 45 Country Offices in sub-Saharan Africa, develops high quality knowledge and policy, is the organisation's main interface with regional and continental bodies such as the African Union and the Regional Economic Communities, and implements UNDP's Regional Programme for Africa. This continent-wide Regional Programme supports Africa's transformation agenda by 1) enhancing inclusive and sustainable growth, 2) widening political participation and giving everyone a voice, and 3) developing responsive institutions which deliver desired services and promote inclusive processes of state-society dialogue.

[UNDP, 2017]

Thus, the Regional Office is a knowledge and management hub for a network of smaller UNDP offices scattered across the continent, including the one in São Tomé and Príncipe. The cohort of employees is very international, with citizens from the United States, United Kingdom, France, Italy, Japan, India, Senegal, Ethiopia, and other countries within its ranks. The Regional Office is chiefly responsible for the financial management of projects, their initial design, and the bulk of monitoring and evaluation. It provides technical expertise to country offices, and liaises with international organizations and donors. Finally, barring a high number of routine field missions, its employees, positioned relatively high in the UNDP hierarchy, very seldom get in contact with local communities, instead relying on government representatives and civil society groups as their proxies.

This stands in sharp contrast to country offices. In general, these are responsible for the late stages of design and, more importantly, project implementation. They are the receivers rather than providers of technical assistance – in fact, a common thread in professional conversations in the São Tomé and Príncipe Country Office is that staff do not have enough technical expertise at their disposal to successfully manage the projects. Country offices also liaise with national governments and their subordinate institutions. Finally, and perhaps rather self-evidently, UNDP Country Office staff members find themselves in the field much more frequently. As a result, they possess a more nuanced understanding of the local realities within which the project is embedded.

Indeed, I have found the Country Office to be a much more dynamic working environment. This is perhaps because the team is tasked with implementation rather than design of projects, making its work more pragmatic and results-oriented (as opposed to administrative) by nature. People constantly enter and leave offices, they

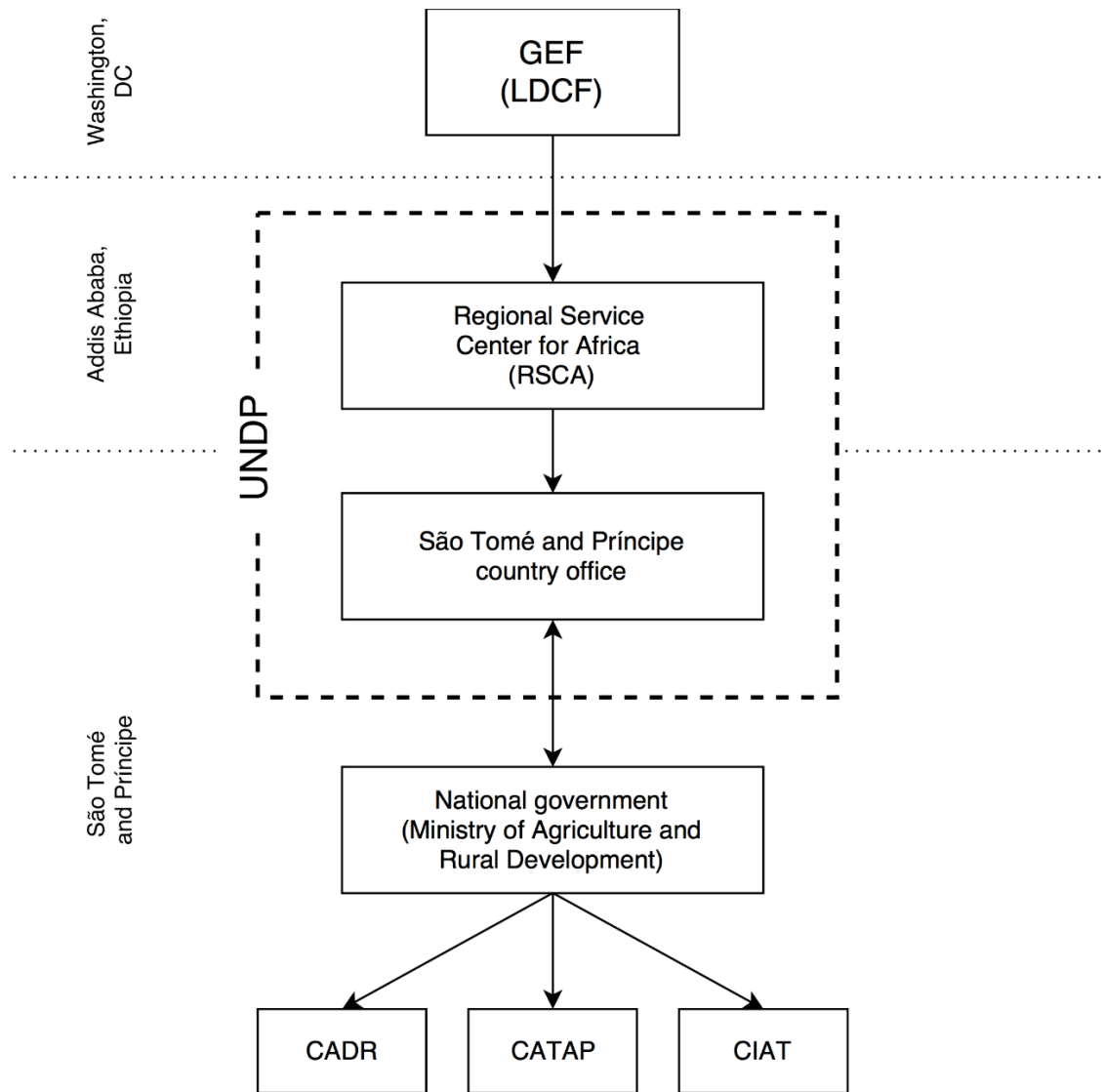


Figure 9. The institutional structure of the adaptation project. Arrows indicate the direction of authority. The power tension between the UNDP country office and the national government is the reason for the double-headed arrow between them.

consult on their choices, they try to decide on the best way to proceed, they are called into the office of the senior team member to give updates. They go out to the field frequently – at least once a week – especially in the wake of project implementation, which was fortunately when I was stationed there. As a result, there tends to be more reflexivity about the project among the Country Office staff, which shows particularly well during regular unit meetings. During one of those, for example, when discussing another UNDP project which at the time was in its concept phase, a staff member asked why consultations were taking place solely at the national level – with the involvement of technical experts and the simultaneous exclusion of communities and local authorities. The same staff member recognized that local people want access to schools, electricity, housing, and better roads rather than irrigation. On another occasion, a



Pictures 21 and 22. The main office area of UNDP where the Regional Technical Advisors (among other employees) are stationed (above) and the view of the Bole neighbourhood as seen from the office (below).

discussion started on involving local authorities in the design of projects, which currently does not happen in a sufficient manner according to a number of Country Office staff members. These exchanges and insights demonstrate how much closer the office is to the beneficiaries, even though its influence on the project's logical framework and donor conditionalities is minimal. In essence, it can be said that while the Regional Office is in charge of the general portfolio of projects (as they require its approval at different stages of design and implementation), country offices are mostly responsible for implementation. It is within this specific institutional environment that the adaptation project has functioned since its inception.

6.3. The techno-managerial nature of the project

The prodoc, which outlines the rationale, the approach, and the solutions to be adopted by the intervention, reads very smoothly. It appears completely natural that low income levels lead to vulnerability, and therefore that increasing them will greatly improve the capacity of local people to respond to adverse weather events in the future. It also makes perfect sense to assume that local communities should work together to achieve these goals, rather than adopting a 'to each one's own' strategy. There is no space or time for discontent here because the climate clock is ticking and if urgent solutions are not adopted, food security will be compromised, leading to more damage and – in some cases – death. However, to land this seemingly persuasive line of argument, the project's discourse relies on a drive to reduce complexity, which results in a certain kind of standardization (Mosse, 2001a). The linear process that leads from low agricultural productivity to "closing the 'yield gap'" (Taylor, 2014, p. 103) is not as straightforward as both the government and UNDP believe it to be, at least in the context of São Tomé and Príncipe.

In fact, the UNDP adaptation portfolio, when examined, reveals some striking similarities between the approaches to adaptation in contexts as diverse as São Tomé and Príncipe, Ethiopia, Senegal, Mozambique, and Bangladesh (Sovacool et al., 2012a). In each of these cases, the initiative relies on increasing the technical capacity of government staff, technological solutions for increasing productivity, and facilitating market access. As mentioned in Chapter 2, facilitating adaptation, a process so complex and context-specific as to render standardized responses to it virtually impossible, is unlikely to succeed using a 'cookie-cutter' approach. However, this is exactly what development agencies such as UNDP seek to establish, as this would greatly streamline their worldwide operations concerned with adaptation to climate change. The existence

of a restricted roster of consultants within UNDP from which projects can draw depending on their needs, only contributes to the petrification of the organization's approach towards adaptation where the same solutions are proposed and adopted *in perpetuum*. As a high-ranking UNDP technician noted:

It's very generic and very standardized. I mean, if even, probably the handful of documents you've looked at, you've probably seen a lot of common, you know, even cut-paste of a lot of those objectives and outputs and outcomes. (...) Because I mean, some of these outcomes, they're really gen... They're like, you know, "Enhancing resilience of the communities." And of course, that encompasses a lot of different things, so you could define that very differently, depending on who you're talking to.

[Sally, senior Regional Office employee]

While it is true that "enhancing resilience of communities" can in fact mean very different things depending on the context, tailoring the objectives and outcomes to the local circumstances often proves very challenging as it requires a considerable amount of institutional effort to have such changes approved by the donor, in this case the GEF. Much in the techno-managerial spirit, generic yet rigid framing of adaptation as resilience is imposed on projects from the very start, and relies heavily on solutions promoting market access, technologies, and institutions, with very little attention paid to the environment in which these solutions are to be deployed.

The gross simplification of the issue of adaptation on the part of project architects is perhaps most clearly visible through its benchmarks for success. Interestingly, these indicators do not explicitly mention increased yields or incomes. Rather, the seven indices that the project adopts rely on a vulnerability perception index and a capacity perception index (destined for community members and national partner institutions, respectively), number of trained staff in adaptation strategies, number of small-scale water harvesting and irrigation systems installed, number of hectares protected by community-based climate risk reduction infrastructures, and the number of adaptation strategies included in the adaptation plans and then implemented at the community level (UNDP, 2014). The focus on quantitative methods to measure success of social processes is problematic, to say the least. The indicators make it impossible to determine the degree to which vulnerability has been reduced, whether the activities benefitted everyone, and how sustainable they are. The *quality*, including the equitability, of the solutions thus remains concealed and unquestioned. One could argue

that the perception indices provide the closest to a qualitative assessment of project success, and one that allows community members to express their opinion on whether the project has been beneficial. However, there are inherent problems with this approach, as many local residents are often reluctant to disclose their true opinions, especially to outsiders, and instead provide feedback that they believe is expected from them (Munaretto et al., 2014).

6.3.1. The resilience heuristic

The techno-managerial nature of this particular intervention is exemplified by its problematization of local adaptive challenges in terms of rural livelihoods' insufficient resilience to climate impacts. As discussed in Chapter 2, adopting a resilience heuristic to adaptation means that human society is viewed as a system that can be thrown out of balance by an outside stimulus in the form of negative climate impacts. This is facilitated by knowledge grounded in Cartesian rationalism and embedded within Western scientific tradition, which assumes the possibility of comprehensively breaking down a given system into distinct pieces, assessing and understanding their roles, and providing recommendations for each in order to achieve a desired objective (Luke, 1999; Orlove, 2009; Taylor, 2014). As mentioned earlier, resilience thinking heavily relies on this particular (or contingent) ontology. Thus, the task of the managers is to solve the puzzle by achieving a resilient state of the country's agricultural system (Brown, 2016). The approach has gained a very strong footing in development research and policy in general (see: Brown, 2016), to the extent of becoming hegemonic in how many international donors, including the EU (European Commission, 2016), conceptualize successful adaptation to climate change.

Indeed, adaptation governance in São Tomé and Príncipe is an example of how climate resilience of states, economies, and local communities has become the Golden Grail of those development interventions in the Global South concerned with climate change. Among all the development professionals interviewed (n = 36), 16 explicitly used the concept of resilience while discussing the economy or local communities in an uncritical manner. Tellingly, the stated objective of the adaptation project itself is, according to official documentation, to:

strengthen the resilience of rural community livelihood options against climate change impacts in the São Tomé districts of Caué, Mé-Zóchi, Príncipe, Lembá, Cantagalo, and Lobata (CMPLCL) (UNDP, 2014, p. 32).

This objective articulates very well the nature of the problem as understood by UNDP and the government. The Santomean agricultural system is seen as incapable of absorbing negative climatic shocks, and corrective measures must be facilitated by the project to bring the system up to the level of resilience required in an unstable and turbulent future, marked in the case of Lobata by more frequent and intensive droughts. The concepts of risk, hazard, vulnerability, coping, and system are invoked by interviewees and documents alike, constituting a certain paradox where depictions of climate change as a looming threat to the country mentioned in the previous chapter are intertwined with technical analyses of the agricultural system's low resilience and the measures for increasing its adaptive capacity (Chaturvedi and Doyle, 2015). As such, the project adopts a decidedly positivist, linear approach to solving the issue of vulnerability in the six districts. The steps to be taken in order to reduce vulnerability to climate change is first to *understand* the issue (climate change), followed by developing the technical capacity of decision-makers and local communities to *identify, plan, and implement* efficient measures to decrease vulnerability. A highly political issue thought to have dire consequences for the entire planet is depoliticized by delegating its resolution to rational scientists expected to come up with objective, evidence-based, and measurable strategies to avert the crisis. This directly mirrors Swyngedouw's paradoxical situation "whereby the environment is politically mobilized, yet this political concern with the environment, as presently articulated, is argued to suspend the proper political dimension" (2013b, p. 2). Thus, according to Pelling's (2011) classification of adaptation to climate change discussed in Chapter 2, the approach towards adaptation to climate change adopted here is the most conservative one – rooted in the concept of resilience rather than transition or transformation.

Importantly, for UNDP and the Santomean state, resilience is more than just an eloquent metaphor to signify a society that is well-prepared for climate change. The concept guides the very conceptualization and design of many of UNDP's interventions in agrarian environments in the Global South. As discussed earlier, resilience is deployed to approach society as a complex yet analyzable system under pressure from a changing climate. In fact, systems theory has a strong presence in the development community, including UNDP:

When you look at a system and you have described your system, you've assessed it. And you have to make a decision on whether you want to maintain its current state of resilience or it needs to transform... It needs to adapt. (...) [S]o if it's a pastoralist

system, maybe you just need [to] make a few changes and stay within the pastoralist system. But if it's really bordering on the tipping point, then maybe you need [to] introduce crops and make it agro-pastoral. But if that's not working, then maybe you need to transform [it] into a totally different system and turn it into tourism or something like that. But all through doing this, there's system feedback. You need to monitor and learn and see what feedbacks the system is giving you.

[Joanne, senior Regional Office official]

The dedication to viewing the social realm as a system which, when subject to the stimulus of development intervention, delivers clear, unequivocal feedback, is emblematic of techno-managerial approaches to problem-solving. It reduces reality to a list of constituent parts (water system, soil system, education system, healthcare system, economy), each with a predictable behavior that a trained manager can keep in check, assess, and influence depending on the choice of solutions. In the context of the adaptation project, the most transparent example of its reliance on the systems approach is Output 1.6, under which the state-led Center for Ecology Surveillance is to carry out an agro-climatic zoning of the islands' ecosystems, assess the climatic vulnerabilities and risks of each zone, and provide expertise to decision-makers and communities on the most appropriate next steps in order to decrease the identified risks (UNDP, 2014). The implications of this heuristic for choosing specific solutions implemented by the adaptation project will be covered later in this chapter. For now, however, it is important to stress that the goal of managerial intervention here is to achieve resilience of the Santomean human-environment system *vis-à-vis* the disruptive stimuli caused by climate change impacts, the origin of which is never questioned. In other words, for UNDP, politics is taboo, and the organization would ideally see a total removal or concealment of political considerations from global adaptation governance. Increasing resilience is treated by its staff as a largely technical matter which requires economic and technological means and demands efficiency when it comes to design and implementation. According to this view, the involvement of politicians and interest groups ought to be limited to securing funds (as in the case of the adaptation project), after which decisions should be made exclusively based on scientific knowledge and managerial know-how, either by UNDP or its partners trained in techno-managerial procedures.

Thus, in this case, adaptation is reduced to resilience, which is understood as the ability of smallholders to increase their yields and incomes despite the growing climate

threat. This is related to one of the most common critiques of resilience mentioned earlier – its conceptual vagueness. Nowhere in project documents is resilience theorized or even defined. Instead, resilience is more of a normative than a theoretical concept used by the government and UNDP as a frame for justifying intervention in São Tomé and Príncipe (Brown, 2016). Absent from this problematization of climate impacts are unequal access to decision-making, the stratified nature of community life, or the serious social, economic, and political issues that mire the country and contribute to its high vulnerability. Rather, the ‘messy’ and highly political elements of social life are silenced if not outright ignored or downplayed by the project in favor of more technical and managerial explanations of why the island’s population will be adversely impacted by climate change.

In short, sea-level rise, and rising temperature caused by an increasing concentration of carbon dioxide in the atmosphere are more likely to be identified as culprits for vulnerability than political and social inequality, or extreme levels of poverty. The explicitly depoliticized nature of this problem conceptualization is further made clear by the country’s NAPA, in which the authors distance themselves from the myriad of development challenges in São Tomé and Príncipe:

NAPA only seeks to find adaptation needs of climate change and not to solve the global problems of development of the country that are the government’s responsibility, through its own policies (NAPA, 2006, p. 15).

The authors thus make a claim that adaptation needs are not related to development challenges, in effect suggesting that, for instance, the lack of irrigation in local communities – a concern clearly within the realm of development – has no relation to how these communities will fare during a major drought. Instead, as managers and scientists, they focus on the specific impacts of climate change on each major sector of the economy, supporting their analysis with extensive modelling and government data, and providing recommendations for increasing the society’s resilience to climate change impacts. For example, among the 22 adaptation priorities for the country, its NAPA suggests such technology- and expertise-based adaptation measures as reinforcement and diversification of agricultural production, reinforcement of human technical capacity, or establishment of a climate warning system.

Thus, resilience has become the go-to descriptor for successful adaptation, a desired quality of individuals, communities, and states. This has important repercussions. As it was argued in Chapter 2, resilience is an inherently conservative

concept which leads to solutions that are predominantly market- and technology-based, and does not offer opportunities for political or economic redistribution, let alone political transformation (Bassett and Fogelman, 2013; Brown, 2016; Gillard et al., 2016).

6.3.2. Achieving resilience through New Institutional Economics

As was discussed in Chapter 2, New Institutional Economics is an ideological morph of neoclassical economics which rejects the invisible hand of the market and, instead, recognizes the role of institutions and organizations in promoting economic growth (Agboola, 2015; Ménard and Shirley, 2008; Neeliah, 2009; Oberlack and Neumärker, 2011). This recognition allows it to engage with the institutions, cultures, and behaviors it finds on the ground (Kamat, 2014). It does not limit itself to high-level economic reforms aligned with the principles of neoliberalism reminiscing the structural adjustment era. Rather, it extends the neoliberal ideology to the cultural sphere of society, promoting self-reliance and profit-oriented, community-based organizations, through a process of neoliberal subject-making (Chandler and Reid, 2016).

Indeed, the project conceptualizes resilience to climate change in explicitly neoliberal terms. As it was mentioned above, the chronic vulnerability of the Santomean population to climate change impacts is associated with the country's low agricultural outputs, which will be further affected by future alterations in the rain regime. In other words, vulnerability here is equated with low income, which makes it more difficult for households to obtain food and to access other necessary services, particularly in times of scarcity. Thus, the solutions that the project offers are *exclusively* thought to increase productivity (be it in terms of agricultural production, including raising livestock, or fishing), which in turn is expected to increase local levels of income. That is also how high-level UNDP employees describe successful adaptation to climate change:

I would have examples in Zambia, in Benin, in Ethiopia, in other places where I have seen farmers doing extremely well because of interventions that we have carried out. There's a farmer in Zambia, in [the] Kazungula district, if you want I can give the case study. They went from growing only maize to a whole crop diversification, to getting into rice. And they have increased their income from about four-five-fold. So, they used to make about 3,500 kwacha out of their field and then last season they made 18,000 kwacha. (...) It's a *huge* thing. You know, if you're making 2,000 euros a month salary, and

suddenly somebody pays you six or seven [thousand], it's a huge difference, yeah?

[Steven, senior Regional Office employee, emphasis in original]

This kind of conceptualization of resilience – as the ability to increase nominal income – is problematic and explicitly apolitical. Adaptation is, in other words, re-articulated as development in its simplest, neoliberal form – that of economic growth and increasing personal earnings.

The understanding of the problem of adaptation to climate change that is rooted in neoliberal thinking about the economy and, in this case, society, has had a profound impact on the choice of solutions proposed by the project. It thus comes as no surprise that in the case of the adaptation project discussed here, enhancing the productivity of local communities is presented as a solution to local vulnerabilities. Increasing local income levels through the commercialization and market integration of local agricultural production seems to be the key principle guiding the project. This process is to be achieved through creating awareness and technical capacity among national partners and local communities, establishing a range of CBOs, and adopting a set of climate-resilient technologies.

The prodoc stresses the need to increase the capacity – a word used 145 times in the document, or almost twice every page on average – of partner institutions and local communities to identify, plan, and implement adaptive measures. Given what is perceived a deficient technical capacity of national institutions and local communities in the country to deal with climate impacts, the project heavily relies on external expertise in creating this capability. As was already mentioned, insufficient technical expertise of the Country Office is a question that resurfaces on the occasion of almost every meeting of the UNDP Country Office staff. Thus, what the project proposes as the first step in achieving resilience is raising awareness about climate change and the available adaptation technologies throughout the country. The project aims to train the staff of the three core partner institutions in scientific capacity to develop agro-sylvo-pastoral adaptation techniques (CIAT), knowledge and implementation of resilient farming and adaptation technologies (CATAP), and climate risk management and adaptation capacity (CADR). In addition, it will train staff from other national institutions (the Center for Ecology Surveillance and the Directorate General for the Environment) in GIS techniques to facilitate climate risk mapping in the six districts. Thus, the project

partners' lacking technical capacity is seen as one of the key obstacles for increasing local resilience. This, however, also extends to local farmers:

Currently, in the CMPLCL districts there is a low technical capacity of farmers' communities to identify, develop and implement strategies for long-term adaptation to climate change (UNDP, 2014).

As a means to rectify this issue, the trained national staff is to educate the members of the climate change adaptation platforms created by the project at the community level (CATAP is to become a "national agro-sylvo-pastoral climate change adaptation center"), who are in turn expected to disseminate the newly-acquired climate knowledge and skills to their fellow community residents (UNDP, 2014, p. 36). This is the exact process through which the project seeks to locally securitize climate change and deliver remedial technical expertise to local people to deal with its impacts. Doing so is necessary because the sense of urgency to adapt to climate change does not exist among public administration officials not directly associated with the project and, as will be demonstrated in the next chapter, climate change is all but a foreign concept to the residents of Liberdade. Failing to 'sensitize' (a verb generously used by the project to describe training and raising awareness activities) local communities to climate change would put the intervention at the risk of suffering from legitimacy and sustainability issues. More importantly, however, it creates a specific kind of climate subjectivity not just among the country's rural residents but also the staff of the bureaucratic state (Agrawal, 2005; Luke, 2011). While it securitizes climate change at different levels, it also frames its impacts in a way that presents boosting agricultural productivity as a logical response to vulnerability.

Once climate change is securitized under the benign labels of 'raising awareness' or 'climate education,' solutions will be presented to local decision-makers and local communities alike that are supposed to avert the future climate crisis. Specifically, the adaptation strategies that will be proposed to the members of government agencies as well as district and village climate change platforms to increase their productivity and incomes are a selection of institutional and technological measures.

The last thirty years of development have seen a growth in institution-based approaches to solving local problems (Cameron, 2000; Kamat, 2014). The adaptation project is a prime example of the institutional approach, which focuses on creating norms and rules, or standard operating procedures (SOPs) in this case, among community members to guide the creation and operation of community-based

organizations. As mentioned above, the project seeks to institute what it calls climate change platforms (a total of 30 at the community level and six at the district level), tasked with facilitating “dialogue and coordination for the elaboration, implementation and monitoring of village and district-level annual adaptation plans and related budgets” (UNDP, 2014, p. 38). It is expected from each platform to deliver systematic and comprehensive annual and multi-year adaptation plans that will include an analysis of local constraints to adaptation, map local vulnerabilities against agro-meteorological seasonal forecasting, identify Integrated Adaptation Measures (IAMs), and coordinate their implementation and monitoring at the community and district levels. While district-level platforms are to include representatives of local governments, NGOs, and community-based organizations, at the village level, they have in reality attracted the more publically engaged members of local communities. In Liberdade, the climate change platform consists of five members: the community president, the agricultural extension worker, and one representative each of the local elders, of the youth, and of women (who however have not convened a single meeting since the platform’s inception, the reasons for which are explained in the following chapter). It is also the members of these platforms that have received climate change training from CATAP.

In general, these platforms are tasked with devising detailed adaptation plans for each district and local community. Thus, they are to solve their resilience deficit by adopting a techno-managerial approach leading them to a rational, evidence-based selection of adaptive strategies, which they will outline in meticulous plans designed with the technical assistance of the Ministry. The communities will also receive training on how to create adaptation investment plans.

In short, the platforms are the locus of the entire project at the community level and are thought to act as intermediaries between local communities and outside support institutions (local government, NGOs, and the implementing agencies, including UNDP). The assignment of so many tasks to these platforms means that the project’s success hinges to a high degree upon the ability of local communities to adhere to the strict procedures outlined in the documents and, more broadly, upon the smooth functioning of these gatherings, a symptom of social homogenization that the project adopts with regard to the beneficiaries (Jasanoff, 2010; Macgregor, 2014; Swyngedouw, 2011b).

In addition, the project also suggests creating other local-level institutions and CBOs. Termed “community-based safety net mechanisms” (UNDP, 2014, p. 44) against the impacts of climate variability on food security, these entities are to bring the

residents together in managing both the agricultural production process and their crop surplus. As mentioned earlier, food cooperatives and cereal banks are promoted in order to better manage the community's food resources in times of extreme weather and climate events. Residents will also be encouraged to cooperate by establishing farmer associations (tomatoes and fruits are explicitly mentioned as potential examples in the project document). Women and young people will receive technical assistance to form nursery cooperatives producing tree seedlings used for erosion control. Fish sellers (predominantly women) are also offered to manage communal solar freezers, which would extend the shelf life of their products.

Another type of CBO that the project seeks to establish are district-level CAPTs. The rationale behind these entities is to add value to the products that are currently being sold by local farmers predominantly in an unprocessed form. For example, interviewees mentioned the processing of raw tomatoes into tomato paste, corn into cornmeal (*fuba*) and sugarcane into *aguardente* as possible ways to increase their profits from agricultural production. Also included in this output is the intent by the project to “support the development and implementation of a marketing strategy to improve the access to the market of the products developed by the Village CAPTs” (UNDP, 2014, p. 49). This would be done through the organization of product fairs, improving processing quality, identifying market niches, and linking the centers with potential buyers. The introduction of CAPTs would also aid livelihood diversification, which is a parallel strategy used to increase local income levels (UNDP, 2014). However, it is unclear how these institutions will be managed and whether or not local producers will have to pay for using their services.

Crucially, the success of these and other activities is to be supported by the use of more or less sophisticated technologies. Their deployment by the project testifies to its architects' belief in the suitability of technology for addressing the 'resilience deficit.' In the words of a high-ranking UNDP official:

I think we have a lot of solutions. I think that the beauty of human mind is that there would be more and that every year, every 5 years, we'll have innovation, we'll have interesting technologies developed, we'll have a lot of things coming up. So, I don't think that we have everything but we do have a lot of understanding.

[Steven, senior Regional Office employee]

The belief in human ingenuity and capacity to solve the problems that, one could argue, technological advancement is complicit in causing is an oft-overlooked paradox

in development and adaptation practice. The technologies proposed by the project – new seed varieties, the use of chemicals to treat plant diseases, or solar freezers – are products of the capitalist system driven by innovation and competition, the same socio-economic-political configuration that has caused climate change in the first place (Swyngedouw, 2013a). In short, the belief in technology as a panacea for important social issues is never questioned (Latour, 2002).

Thus, the functioning of the project-derived institutions is contingent upon the delivery of a truly formidable array of innovative adaptation technologies that will help increase the adaptive capacity of local communities. The already mentioned solar freezers are just one example of how local incomes could be raised through increasing the profits of local sellers and producers. The same can be said about the mechanical equipment that will no doubt be used in CAPTs. The Integrated Adaptation Measures (IAMs) are also to be grounded in technical expertise under the guidance of CIAT and CATAP. Here, the project proposes improvements in farming and livestock management operations through: composting technology, fertilizers and pesticides, weed control, and production of climate-resilient seeds and seedlings for alternative crops, such as cocoa, maize, cassava, sweet potato, taro, and soybean. The use of GIS technology is to aid vulnerability assessment at the district level as well as the selection of communities.

Technology will also be used to protect the productive assets of local communities. The project proposes terracing, strengthening of drainage systems, rain water control, landscaping, windbreaks, and other erosion control strategies, as well as dykes and bunds to protect local communities from the biophysical hazards of climate change. Water-efficient irrigation systems are also on the menu, which are to be designed based on the agro-meteorological data provided by a parallel UNDP project concerned with the introduction of an early climate warning system in the country.

The somewhat overwhelming account of different awareness-raising, capacity-building, and institution- and technology-based solutions presented above testifies unequivocally to the techno-managerial nature of the adaptation project in question. A wide range of actors from across different scales is brought together with the goal of increasing resilience of local communities through the mobilization of associations, technologies, and markets. These culminate in a process of agricultural modernization, which is supposed to increase the productivity and consequently income of those whose livelihoods directly rely on natural resources. A single, aggressively apolitical variable – agricultural productivity – guides the entire rationale behind the solutions proposed and

implemented by the project, with the concomitant relegation of other ones to the distant background. The New Institutional Economics that guides this approach has created a need to adapt to climate change under the auspices of experts who use solar freezers, pesticides, dykes, and training sessions to facilitate adaptation to climate change at the local level. In short, successful adaptation is to be achieved through increased income.

To a certain extent, however, the project recognizes that increasing income by boosting agricultural productivity may not work for all local community members. Indeed, diversifying local livelihoods is a strategy that UNDP adopts across the board in order to steer the more vulnerable farmers (as opposed to the high-performing ones) away from direct production and towards finding sources of income which are supplemental to or even replace farming as a livelihood. This is also in line with the World Bank's policy which masks neoliberal capitalist expansion behind the concern for the vulnerable smallholders by advocating for the mechanization-based reduction in agrarian workforce (Moore, 2004; Shuhrke, 2013). A high-ranking UNDP employee based in the Addis Ababa office described the rationale behind livelihood diversification as follows:

So, for people who are landless, who are very poor, the poorest and all, [what] you *can* do [is] what we call “skill training”. Skill-training for employability. And here, you are again looking at the market, looking at absorption capacity of the market in terms of employment. Whatever figures of unemployment are there, there are *always* niches of employment. In [interviewee's country of origin], we have 10 percent unemployment but there are 400,000 job posts that are not occupied. Because they [the unemployed] don't have the right, matching skills. (...) So that's what we do. We try to identify the market's capacity to absorb jobs in specific sectors, and then we train people in those skills, and then place them in the jobs. So these are all the things that we can do which have nothing to do with farming.

[Steven, senior Regional Office employee]

The interviewee mentioned examples of how vulnerable people's employability could be enhanced through providing training in the three sectors of construction, nursing, and Information and Computer Technology (ICT). This approach has as its goal addressing the “mismatch” between the market and unemployed or underemployed people's skillsets. The need to reduce agrarian workforce is similarly reflected in the opinion of this interviewee working for a humanitarian organization based in Ethiopia:

[I]n my own opinion, (...) there's no doubt in Ethiopia that many millions of livelihoods are completely unsustainable now – agricultural livelihoods, that we now need to talk about diverting people away from rain-fed agriculture completely. There's no point tweaking where you might have... you know, you introduce a drought-resistant crop or you know, you introduce drip irrigation. I think this is superficial and almost pointless.

[Colin, NGO, Addis Ababa]

As such, diversification of livelihoods can be said to contribute to the proletarianization of smallholders (Glassman, 2006), a theme that will be discussed in greater detail in the next chapter. And while a parallel strategy to increasing employability is promoting self-employment through establishing small and medium enterprises or associations (as already mentioned, in the case of the project options include running artisan and crafts workshops, beekeeping, and poultry-breeding), it is unreasonable to expect to create a new entrepreneurial class that will be able to seamlessly transition into a new sector of the economy without any social externalities such as unemployment or a growing divide between the haves and have-nots. These externalities are already taking place as evidenced by the uneven distribution of land assets in Liberdade that will be discussed in the following chapter.

* * *

This chapter sought to present evidence for the post-political nature of the adaptation project in São Tomé and Príncipe by focusing on its institutional level. The techno-managerial paradigm within which adaptation is governed leads to the deployment of resilience thinking and NIE strategies, resulting in apolitical solutions to decrease vulnerability understood as low agricultural productivity. However, one could easily argue that any initiative concerned with environmental management is inherently a techno-managerial enterprise where technical knowledge and expertise may even be essential for success, and this comes as no surprise (Swyngedouw, personal communication). The importance of the adoption of the techno-managerial approach by UNDP and the government lies in its implications for the local community, as it contributes to the evacuation of the political from the public sphere in favor of an unquestioned reliance on scientific expertise and technical know-how.

As already hinted at in this chapter, the project uses a highly participatory approach that seeks to secure meaningful avenues for community involvement. Doing

so allows it to legitimize the techno-managerial outputs to the state, the communities, and the donors. However, development agents' perceptions of the recipients of adaptation assistance are a far cry from the democratic and participatory principles invoked by official communications. Rather, as discussed in the previous chapter, the subaltern representations of smallholders are constantly present in the imaginaries of most technicians and managers involved in the project, which directly affects its spaces of participation. The project, while not deliberately, seeks to create subjects of adaptation who conceptualize the danger of climate change in the same manner as national and international managers and, in consequence, obediently adopt the suggested adaptation strategies. The next chapter will discuss in greater detail how this effective excision of local people from governance plays out in practice through the encounter between the project and Liberdade's residents.

7. Adaptation encounters: Consensual participation and the erasure of difference

The previous two chapters sought to uncover and analyze the two key processes constitutive of the post-political condition of adaptation governance as envisioned and promoted by development organizations, including UNDP. First, the deployment of the dramatized representations of climate change and the related discursive violence was discussed, which was followed by an analysis of the techno-managerial approach to addressing the problem of adaptation. The third process that is at play here ensures that the top-down nature of post-political governance is not only concealed, but also (mis)represented as its exact opposite (Wilson and Swyngedouw, 2014b). Post-political governance entails a manufacturing of an adaptive consensus by development agents to legitimize the resilience-enhancing solutions outlined in the previous chapter. This is done, as will be shown here, through the process of local participation. However, for an approach that claims to be highly participatory, transparent, and democratic, post-political governance conceals a great deal at the local level.

7.1. The consensual spaces of participation

Throughout the interviews with representatives of development organizations on the island, a common theme emerged around the failure of projects, and specifically of technical staff entrusted with designing their scope and logical frameworks, to properly understand the local context. The aforementioned reliance on standardized approaches to increasing resilience regardless of the social, environmental, economic, and political circumstances of future beneficiaries leads to a degree of frustration and disillusion among those who are familiar with the Santomean development context. A staff member of a local NGO who has resided in the country for almost 20 years has recalled a UNDP field visit to Fogo Island in Cabo Verde – by many seen as a development model for São Tomé and Príncipe – following a volcano eruption which devastated the local vineyards:

[T]here was this consultant of the UNDP, this... Brazilian woman. And she was trying to set up a plan on adaptation, what we're gonna do, replacement, where we're gonna put the populations, and they were already building houses 3 or 4 kilometers away. In the meantime, you noticed that these people are producing wine from vineyards that are... like this big. (...) I mean, this is such an *amazing*, productive, lucrative activity, that of course, people didn't want to move [away] from there.

And I said to this woman: “But, can you tell me... Have you done the focus group with the affected people?” – “Ah, no. We haven’t done that!” And I said: “What? So you don’t even know what they would like? Because they’ve been living here [for] centuries! They *know*! I mean, they know better than you what is necessary, where they can go, where is the best place to position the new houses, *if* they want to position the new houses...” (...) So you know, *why* don’t we base more on what communities want and what the communities know how to do?

[Constança, NGO, São Tomé, emphases in the original]

Another example was provided by a high-ranking UNDP official based in the Regional Office in Addis Ababa:

We’ve gone to places where we found pastoral systems suffering and we’d said we’d introduce crop systems, and that becomes a maladaptive solution. That’s why for me the big conflict [is] between what we think is right and what is really right. And I think how we now work, we need to listen more. We don’t sometimes do that. Sometimes, we’re really cooped up with... cooped up in our solutions. Very. Like, we know, “Oh, this one needs a solar PV or this one needs a...” We’re very, very good at saying: “We need a protected area here. We need a financing system.” (...) I really feel like sometimes we miss the point.

[Joanne, senior Regional Office employee]

In both these cases, the excessive reliance on standardized problem-solving strategies is likely to lead to irresponsible or irrelevant solutions which in the worst case scenario can, as in the example of the pastoralist systems mentioned above, turn into maladaptation (Barnett and O’Neill, 2010; Taylor, 2013). Instead, in the words of an interviewee working for an NGO based in São Tomé, projects tend to rely on ‘caricatures’ of local contexts – broadly delineated descriptions based on macro-economic data and trends where more complex social and political issues are omitted. In the words of one of the UNDP staff members asked how this issue could have been addressed in the case of the adaptation project:

They should [have done] a better work in the field when they were making the project, the prodoc of the project. (...) They should [have found] someone to go there one time per week or things like that during the process of making the prodoc to see what are the real needs of the communities. And I think that this

should, there (...) should exist a way to, to change a little bit the prodoc because the prodoc is made and the project starts some years later.

[Valerio, project staff member]

However, the social homogenization of the community, including its problems, is arguably inevitable in this case. A single project that seeks to address the adaptation needs of 30 communities – constituting a sizeable portion of the country’s rural population – must adopt a low-resolution approach. This is due to the fact that, frequently, projects simply do not have sufficient time and resources at their disposal to properly understand the problems they are tasked with addressing. There is a great deal of self-reflection and awareness of these issues both among low- and high-ranking staff members at UNDP, as evidenced by the above quote. In many cases, the setup of the development aid industry, including GEF’s (and in broader terms the World Bank’s) funding structure, makes in-depth analysis of local-community or even national contexts simply unfeasible (Dodman and Mitlin, 2013). Thus, it is unlikely to properly understand each of the communities in which one seeks to intervene. As a result, local community is the lowest unit of intervention²⁸ as described by project documents and the vast majority of project staff (lower-rank employees, while more aware of local complexities, tend to have the least power to change anything at the institutional level).

Thus, the major assumption of the project, upon which its success hinges, is the uniformity of local contexts. Yet, the erasure of difference at the local level, in the case of the adaptation project in São Tomé and Príncipe, will likely result in the undermining of the entire initiative in rural communities, including in Liberdade. The stratified nature of the village became evident during the residents’ prolonged and somewhat chaotic experience in participating in the adaptation project. The participatory process has also revealed how the solutions that the intervention proposes – local institutions, reliance on markets, and the deployment of yield-increasing technologies – may not be as straightforward and commonsense as project documentation seems to suggest when applied against the social complexity of Liberdade. In short, the spaces of encounter between the staff and the beneficiaries revealed how out of touch the standardized design of the project is with the local context, and what the possible consequences of this “out-of-touchness” for the community may be.

Meanwhile, the project document maintains that the initiative:

²⁸ With the exception of gender considerations, which receive somewhat tokenistic attention due to donor requirements.

was *designed* in a participatory manner to ensure significant stakeholder input, and will be implemented in a way that ensures their full participation in all *implementation* aspects including *monitoring and evaluation* (UNDP, 2014, p. 16).

The project's architects thus claim that participation forms an integral part of all three major stages of the project, starting with design (including the concept phase, sometimes presented as a separate stage), through implementation, all the way up to monitoring and evaluation (M&E). In short, participation of beneficiaries in projects such as this one is supposed to feature prominently in their design, and indeed, the commitment to the participation of communities and other stakeholders in all stages of the intervention is officially one of the major tenets of the project. This, however, has normative as well as instrumental reasons. As already mentioned, meaningful participation of beneficiaries in development interventions is among the key criteria for successful funding, as evidenced by GEF's many participation and stakeholder engagement safeguards (GEF, 2015). For instance, "undertaking a country driven and participatory approach" is one of the LDCF eligibility criteria (UNDP, 2014, p. 14).

Moreover, it is arguably a strategy taken by development agents on an instrumental rather than a normative basis following the widespread critique received by more traditional, top-down interventions, the failure of which contributed to launching the participation paradigm which continues until this day (Boezeman et al., 2014; Burton and Mustelin, 2013; Cooke and Kothari, 2001; Humphreys et al., 2006; Mosse, 2005). As such, by incorporating the critique and turning it into an asset, development industry has managed to continue the business-as-usual of providing what amounts to neoliberal-inspired cosmetic change in local communities ridden with deep-cutting inequalities and abject poverty – all by producing an adaptive consensus on the need for their interventions, and avoiding antagonistic interactions that reveal local stratification.

A term widely used while discussing participation in the design, implementation, monitoring, and evaluation of the adaptation project is 'stakeholders' (used 60 times in the project document alone) (UNDP, 2014). Defined as actors who will be affected by a given intervention (or those who have potential 'stakes' in it), stakeholders are a very broad group of actors. The project, though its three component focus on different levels and aspects of adaptation governance, has an ambitious goal of preparing the country for the uncertainties of climate change. This includes improvements to the functioning of national administration, including state agencies concerned with agricultural development such as CATAP, CIAT, and CADR, local administration, NGOs, and

CBOs. It is not unreasonable to expect that since local communities are the key beneficiaries of the project, and by definition its most important stakeholders, their involvement in the design, implementation, and M&E would be at the center stage. However, as the below account will demonstrate, their participation as of the time of writing has been very limited, with most consultation meetings having taken place with representatives of government agencies, local authorities, and national-level NGOs. The adoption of an all-encompassing but consequently vague term of ‘stakeholders’ has allowed the project to mask the exclusion of local communities from the bulk of the decisions that will potentially have a massive impact on local livelihoods while still presenting the intervention as highly participatory to donors and independent evaluators.

In terms of what the consultation process entailed from the standpoint of Liberdade’s residents, the village had been visited in an official capacity by various groups representing the adaptation project three times as of mid-May 2016: once in the period between September 2012 and April 2013 (during which consultations in all 30 communities were taking place), then in August 2015, and finally in March 2016. This was, it should be noted, before the implementation of the first activities at the community level. Local residents’ participation thus extended for at least three years, averaging around one meeting annually. All the meetings took place in the design (first two) or the diagnostic (last one) stages of the project. This means that, at least in theory, the residents of Liberdade had multiple opportunities to contribute to the design of the project by identifying their needs and proposing the solutions to address them.

Between September 2012 and April 2013, during the project preparation grant phase, the team of one international and three national consultants hired by UNDP visited each of the selected communities to assess the baseline situation on the ground. Given the strict timeline and limited resources, the assessment, based on questionnaires, would normally take up to one day per village (sometimes less), with a potential follow-up visit in case the village president was absent, or to validate the data by asking residents additional questions. However, there was only one visit conducted in Liberdade, to which one of the consultants referred to in the following manner:

First of all, we invited all [of] the community, for example, I think most of the members of the community, they, they [didn’t go]... They weren’t in the meeting. (...) Fishermen, they go to the sea, [others] go to the plantation... (...) [The] minority was present but the majority, they, they... [That] was my feeling, personal[ly]...

[Rafael, consultant]

Thus, one of the most crucial consultation meetings taking place in the project preparation grant phase – and thus during the formulation of the project document – failed to elicit a strong response from the community in the above interviewee’s view, and in consequence could not be expected to capture the multiplicity of interests and perspectives on what needs to be done to make Liberdade more ‘climate-resilient.’

The next consultation meeting with the residents of Liberdade took place in August 2015 – well over two years after the initial assessment by the consultants (who, by this time, had long concluded their work and would never be involved in the project again). On August 6, 2015, the team composed of several employees of CADR as well as one representative of the local government visited the village with the goal of conducting Rapid Participatory Appraisal (RPA) to “validate and update the general framework presented by the consultants to UNDP regarding the major activities, specific issues and most important [development] gaps that it detected” (CADR, 2015, p. 4, translated from Portuguese). The first part of the meeting involved the project delegation visiting various fields to observe the current condition of the crops, inspect the local irrigation infrastructure, assess the level of soil impoverishment, and visit tree-logging sites. Importantly, the report highlights the visit to the field of Liberdade’s president, the most productive farmer in the village. It was during this meeting, in which around 150 residents took part and which was described by an official government report as “very participatory” (CADR, 2015, p. 5, translated from Portuguese), that the village platform was elected.

As mentioned in the previous chapter, the goal of village-level climate change platforms is to liaise between the community and outside project partners, including the local authorities and CADR, and to coordinate the implementation of project activities at the community level. Unsurprisingly, the president and the most politically-established woman in the village formed part of the committee, next to representatives of the young people and the elders respectively (both also disproportionately active in the community’s social life). Crucially, little is known about how participative the meeting actually was. When prompted about the event, Liberdade residents could not remember it exactly given the fact that almost one year, and many more consultation meetings with other initiatives, had passed since. However, during an informal conversation, one of the local young men noted that he did not wish to form part of the committee because “it did not seem like a dynamic initiative,” which may be an indication of local residents’ skepticism towards the platform’s perceived relevance.

Arguably, the most extensive participatory event as of this writing was the series of meetings which took place over the course of three days in early March 2016 that would focus on the component mandating the establishment of CAPTs across the country. This is also the event I participated in personally. The goal of these events was to (1) identify the agricultural processing potential of each community, (2) identify residents interested in this activity, and (3) assess the farm plots of potential beneficiaries (CATAP, 2016). As mentioned in the previous chapter, the rationale behind the processing centers is to create added value to the products already sold by Liberdade's farmers and thus to increase their incomes. Importantly, not only are farmers expected to produce more valuable products for the market. They will in all likelihood be responsible for running the CAPTs themselves, completely absolving the project and, after its conclusion, the state from any kind of maintenance or management obligations. The role of the project is to simply set up the centers by providing the required machinery, with little promise to help keep them operational. Rather, it is expected that untrained and already busy farmers would take care of the centers, not least because it is in their collective interest to do so.

The first day of the consultations started at 8AM with an approximately two-hour general meeting in the community shed (the same one used for adult literacy classes; see Picture 9 in Chapter 4). With around 80 participants present (most of which were men), the delegate for the North-Central Office of the MoARD opened the meeting by asking the audience if they knew about the adaptation project. While most of the people were aware of it, they were less informed as to what the project would actually involve. So, the delegate provided some generic information to those present:

She said it's supposed to lift farmers out of poverty, and that today [the staff] wanted to see who would be interested in processing their products. Again, she said they were helping farmers to increase their income, for example through washing bananas before selling them, which would attract more customers.

[Field notes, 10 March 2016]

It was also during this meeting that residents were told to think of themselves as entrepreneurs rather than regular farmers, an attribute of an ideal subject of adaptation described earlier. Crucially, the intention behind the processing centers is that they would be open to everyone, but rules of access had not been established at the time of the meeting. It is safe to assume that due to the poor state of the road connecting Liberdade to the national road network, the center serving Lobata will not be located

there. This leaves the question of access to the center by those who normally cannot afford to transport their crops across long distances. Moreover, the interest in maximizing farmers' income means that the CAPT is bound to cater to those in the community with the highest agricultural potential, including Liberdade's president, ex-president, absentee landholders, and those who have access to irrigation canals, as limited as it is.

The meeting proceeded by the staff administering a survey, talking individually with each farmer about their crops, yields, income, and other livelihood-related questions. Interestingly, this was happening while everyone was still in the shed, making an inefficient use of the time of those who were still waiting to be surveyed. The unease and confusion about this was clearly felt in the room, but very few people left before being surveyed, most likely not wanting to forfeit the opportunity to benefit from the project. After the meeting concluded, the team tallied up their responses and set out to inspect two fields in Liberdade. These very quick visits amounted to standing in front of the field and surveying the farmers the way it had just been done in the shed.

During the second day of the consultations, the staff conducted more detailed surveys in the morning and early afternoon. The president of the community set up several chairs and a table for the team and the surveyed to use throughout the day. In theory, only the people who had participated in the meeting the day earlier were supposed to participate in the survey. However, in many instances, that was not the case, as people may have not been aware of the first meeting or had other commitments. This visibly annoyed the head of the delegation who admonished other team members in front of the residents for surveying those absent the day before. This revealed the lack of a nuanced understanding of the intricacies of rural life on the part of the delegate. One of the reasons for the relatively low attendance the day earlier was the fact that the rains had finally come and farmers, rather than participating in yet another consultation meeting, preferred to make the most of the favorable weather and left early in the morning to work in their fields. This, unfortunately, was entirely ignored by the project staff both in terms of how they justified low attendance and set the time for the events. Thus, morning meetings clearly favor the schedule of project staff rather than that of the farmers.

The third day saw only another two female residents surveyed. Instead, the team walked to the fields located uphill and away from irrigation channels (see Picture 23), and talked to several farmers about their issues with agricultural production. Almost every field was being worked, with corn saplings shyly mushrooming across the hilly

rural landscape. Not surprisingly, the biggest issue indicated by the participants was the lack of irrigation and the need to wait for the first rains before planting. The delegate also gave a mini-lecture to those present on the allegedly insecticidal properties of one of the plants that grow in the area, suggesting it could be used against the caterpillar infestation that had plagued the community's corn crops. Upon the conclusion of the walk, the project team left.

The three-day consultation event described above can be considered an example of what community participation in development and adaptation projects frequently looks like in practice. The events that brought together project staff, including government representatives, with local residents, had as their goal to *assess* the current state of affairs at the community level. At no point during the last of these consultations was the community presented with a choice as to the selection of the solutions, their timing, or scope. The goal of the project team was to *diagnose* the community (in fact, the Portuguese term for “assessment” is “diagnóstico”), and consultations felt closer to lectures or presentations than co-productive exchanges of ideas that they purport to be. On the contrary, rather than giving an opportunity to the residents to engage in a sincere and open conversation with the project, the information collected would be used to produce solutions or, more accurately, justify those already selected (Mosse, 2005, 2001b). For instance, product processing – the focus of the most comprehensive consultation events to-date in Liberdade – is not very high on the list of community priorities, with irrigation, poor road access to the city market, and no running water as the main issues identified almost universally by Liberdade's residents. As some of them astutely noticed in private, there is little point in having a processing center without any produce to take there.

Development practitioners on the island are in broad agreement that the participation process is a far cry from what it ought to be. In the words of an interviewee who has been involved with the local development community for 8 years:

I mean, a lot of this is done in the cabinet [behind closed doors] and just comes out of UNDP one day during the consultation [meeting] and everything is already cooked up, you know? So, (...) just like the communities, with us, the NGOs, we're at the bottom of the Arnstein ladder.²⁹

[Thomas, NGO, São Tomé]

²⁹ Here, the interviewee mentions Arnstein's (1969) classic work on participation, which has become a point of reference for many studies and interventions concerned with participatory development.



Picture 23. One of the unirrigated fields in Liberdade photographed shortly after the beginning of the rainy season. The field has mostly been cleared of weeds to make room for maize saplings pictured.

The point made by the interviewee on solutions being preselected before consultations actually take place is particularly important. In theory, the entire design of the project should have been co-produced with local communities to address their perceived needs and problems through a very open and participatory consultation process. However, when the scope of the project is compared to what local communities actually indicate as pressing issues, the overlap is hardly there, the whole process closely resembling disciplinary neoliberal participation rather than a deliberative, agonistic event where different visions of adaptation are discussed between the project staff and the beneficiaries (Bryant, 2016). While there exists a fortuitous overlap between the intervention's list of potential activities and one of the needs most frequently indicated by the community – the construction of an irrigation system – this is an exception to the general rule where community needs do not qualify as adaptation solutions and as such are not included in its long-established logical framework. These include bringing potable water to Liberdade, the construction of a paved road, renovating decrepit housing, or opening a village nursery (see Figure 10). In the words of a local resident who discussed how out of touch development interventions are with rural reality:

[O]ur problem is water. [T]here was another [project] that was, that built the place to breed animals, but we don't... It didn't go ahead because we don't have water. There was one that worked. They built the social houses that are still there. We were very happy with that project. And that's all.

[Eduardo, adult resident]

Thus, in the interviewee's memory, the only beneficial project – out of several implemented in the last few years in Liberdade – was the one that responded to (or was coincidentally in line with) the direct need for new housing in the community.³⁰ Other past projects managed to impose their own understandings of local problems on rural residents. In the words of Swyngedouw (2011b, p. 273):

Any policy intervention, when becoming concretely geographical or ecological, is of necessity a violent act of foreclosure of the democratic political (at least temporarily), of taking one option rather than another, of producing one sort of environment, of assembling certain socio-natural relations, of foregrounding some natures rather than others, of hegemonizing a particular metonymic chain rather than another.

Thus, the project has effectively ignored the alternative community visions for what adaptation or resilience can mean in Liberdade. Instead, as mentioned in the previous chapter, the project stresses agricultural production as key to enhancing local resilience, and so most of the items of the community's wish list, which can be considered more socially rather than economically-oriented, are unfit for the project.

Indeed, the project seeks to impose a specific, climate subjectivity on Liberdade's residents which requires them to re-conceptualize the challenges of their livelihoods in terms of climate change and the resulting decrease in agricultural production. This will be further achieved by the already-mentioned series of climate awareness training sessions to be conducted by the members of the climate platform, as the project is well-aware that most residents of rural communities in São Tomé and Príncipe have never heard of climate change, let alone of its specific consequences.³¹ One could ask at this point if the current format of meetings with residents can indeed be called consultations if the community must be educated on what their needs are in the first place. The project expects Liberdade's residents to provide answers that fall

³⁰ As mentioned earlier, however, the construction of social housing in Liberdade reportedly resulted from the president's direct lobbying of officials at the local district level.

³¹ However, this is bound to change. Climate change is becoming securitized at the national level, particularly by the media such as TVS and RTP, the two major Santomean TV stations.

within the climate-centered scope of the intervention (Mosse, 2005, 2001b). When that fails, rather than adjusting the scope of the project, it is the expectations of the community that should be molded in such a way as to comply with the activities listed in the project document. Participation, in this case, borders on a cynical tool to validate decisions already made behind closed doors (Cooke and Kothari, 2001).

Thus, in the case of Liberdade, the participation of local people in the adaptation project involved three meetings spanning a period of at least three years, during which the community was subjected to what Cooke and Kothari (2001) have controversially dubbed the “tyranny of participation.” Arguably, the people of Liberdade were assessed or diagnosed rather than asked to co-shape the project as equal partners. This is arguably not just the case of the adaptation project or indeed of Liberdade. Santomean communities are “bombarded by development projects left to right,” in the words of a staff member. More often than not, they reproduce a similar participation experience every time they seek to work at the local level. It is no surprise that the majority of the residents of Liberdade are skeptical or outright resigned towards development projects altogether. Interviewed residents were divided in their opinions about such interventions, with the more optimistic ones expressing hope for tangible improvements in the form of irrigation, potable water, and new housing that projects could bring in the future. Others presented a completely different view when asked about development interventions’ track record in Liberdade, such as this young woman:

For me, they are bad projects that didn’t help the community in any sense. (...) They come here with a promise, saying that the project will help the community. But so far, I [can’t] see where or how the project helped the community. (...) I remember one project... I didn’t go to the meeting but I remember them saying... [people] who participated... “They will help the community.” But so far, I don’t see anything.

[Elodia, young adult resident]

This is echoed in the words of another resident, according to whom projects:

used to come here, do meetings, get names, but in terms of actions, they go back and never return.

[Pedrina, adult resident]

There is indeed a sense of impatience among residents who, being completely removed from the workings of the adaptation project and unaware of its timelines, do not understand the long periods of idleness between events. What is more, these periods

between consultation meetings mean that the project may be concerned with issues that are no longer relevant to the community. This only amplifies the disconnect between what the project is designed to achieve and what the communities actually need. These feelings of impatience, resignation, frustration, and sometimes anger over the inability of projects to actually listen, let alone effectuate tangible change, make for a very difficult terrain for development actors to advance their initiatives. It certainly does not help in creating an atmosphere of cooperation and friendliness that is an absolute necessity if the project is to achieve sustainable objectives. For instance, there can be no talk of creating successful institutions if trust is substituted by suspicion, resignation, and patronization in the interactions between the project staff and project beneficiaries.

Indeed, the individual encounters between the project staff and the beneficiaries also provide interesting insights into the latter's participation experience. During the administration of surveys in March 2016, the attitude of the national administration employees towards Liberdade residents exemplified state officials' overall perception of rural people. Having been seated right next to one of the surveyors, I witnessed time and again their brusque responses, lack of eye contact, and visible displays of frustration over participants' unfamiliarity with technical concepts related to agriculture, such as product processing. Meanwhile, no explanation of the purpose of the survey was given to most participants, and none were informed on how the data would be used. This attitude does not seem to be uncommon. In the words of an experienced practitioner with 17 years of experience in the country:

[U]rban people, technocrats, technicians here in the government, they don't need the rural communities for anything. And they didn't even want to go there because they don't... they hate going to the field and getting dirty. (...) They want to be cut off from that. 'Cause they don't want to be reminded where they come from, you see? They don't want to be reminded.

[Constança, NGO, São Tomé]

This is strictly related to the Orientalization of rural people mentioned in Chapter 5, which often originates in the urban areas of São Tomé and Príncipe. The division between city-based and rural identities in São Tomé and Príncipe becomes visible through and directly affects local communities' participation in the project. However, it is important to underline here that the patronizing attitude described above seems to be inversely proportional to the amount of time spent regularly interacting with rural residents. The locally-based delegate and the extension worker conducted their

surveys in a much more respectful and patient manner, which is – as mentioned above – likely due to the regular contact these state employees have with the residents of their district.

In general, then, the relations between beneficiaries and most of the project staff (barring the agricultural extension workers) can be described as deeply unbalanced. When asked, almost all residents declared that they did not know how to get in touch with the project, despite the fact that one of the roles of the climate change platform established the year before was to liaise between the community and the staff. What follows is a set of questions, the answers to which are very representative of the vast majority of the Liberdade residents:

I: So, if you wanted to reach out, to contact anybody from those projects, do you know how you could do it, or do you have no way of doing it?

P: No.

I: Did you ever talk, interact with people from any project, personally?

P: No.

I: What about your husband?

P: No.

[Elodia, young adult resident]

This shows that an invisible wall exists between the two groups that are, at least in theory, supposed to closely cooperate in the design, implementation, and monitoring of the intervention. Rather than forming a close partnership as envisioned by project documentation, the arrival of state officials in the community often results in residents seeking to establish clientelist relationships with the former. This demonstrates that it is not merely the project which, through its institutional setup, has refused to treat local people as potential partners. Equally important is the fact that residents of Liberdade do not see the project as a meaningful partner for developing their community and improving their own quality of life. Indeed, the overall sentiment is that projects are a resource that can provide piecemeal support to individual residents, with a blatant disregard for the collective interest. It is not surprising, then, that a co-productive

partnership is extremely difficult to establish given the historical, social, and cultural circumstances described earlier.

What needs to be underscored here is that the residents of Liberdade, despite the questionable track record of development projects in the community, tend to give the benefit of the doubt to any new initiative arriving in the village. They attend meetings, even if not in majority, they express their opinions when asked, and then they wait. However, they do not wait idly. Instead, not being able to count on much support from the development community or the state, they work on improving their livelihoods within their own and often very limited means as described in Chapter 4. That they agree to participate in mostly inconsequential meetings, which almost amounts to indulging the project itself, is admirable, indeed.

7.2. Participation and the concealed inequalities of Liberdade

While project documents and accounts of project staff speak mostly of local community participation, there are plenty of reasons why not everyone participates in what is supposed to be a collective effort aimed at ‘climate-proofing’ the community. The internal stratification of Liberdade, involving issues of political, spatial, economic, and social inequality discussed in this section, has a significant, if not a defining, impact on the degree to which individuals and families participate in the project, and how its benefits are likely to be distributed across the community during and after the implementation phase. These, not surprisingly, are extremely sensitive issues that the project has consistently refused to engage with in practice, both due to its fetishization of consensus and neutrality and the lack of time or financial resources.

The above account of community participation is circumscribed in its scope to those who actually took part in the consultation process. As such, it is by definition blind towards the internal relations of inequality and exploitation cautioned against by critical adaptation and development scholars. The history of the project to-date demonstrates that just as it is difficult to speak of ‘community’ in the first place, due to its inherent suppression of internal differences (A. Cohen, 1985), it is also problematic to use the totalizing construct of ‘community participation.’ Communities do not participate – their residents do. Therefore, it is more appropriate to speak of participation in terms of different groups and individuals, and of the quality of their involvement in the project. Thus, there is a need to supplement the insufficient community-level analysis with a more individual-centered perspective on their

participation. An analysis of field notes and interviews with 20 residents delivered a more nuanced account of ‘community participation’ in the project.

One of the main themes in this context was rather trivial, and pertained to whether a given resident was aware of the meetings beforehand. In general, the residents are divided over whether consultations are properly announced to everyone, and the general consensus appears to be that everyone should be notified earlier than is currently the case. This would help better plan the activities for the day and ensure time is set aside for a meeting:

I: And how is it advertised? Like, before a meeting, how do you learn about it?

P: So, I got the information in the community. People of the community told me about this meeting. And I got the information like less than 24 hours before the meeting. And I think that this is not the right way to pass the information. The information about the meeting should be given at least 48 hours before the meeting.

[José, elderly resident]

This confirms that consultation meetings are often organized in a highly ad-hoc manner, with project staff trying in extreme cases to ‘chase down’ as many residents as it is possible upon arrival and before the meeting starts. Ideally, project staff hope to involve as many local residents as it is possible to ensure the whole community is aware of the intervention and that ‘local buy-in’ is secured. That said, the third round of consultation events (in March 2016) was not advertised in any way in Liberdade. No posters were displayed around the community, and no member of the project staff was scheduled to visit the village and inform the residents about the impending meeting. What needs to also be noted is that attendance rates at this particular set of events may have been significantly affected by my presence in the community. Two days earlier, I was scheduled to meet in Liberdade with the MoARD delegate for the North-Central region. During her visit to the community, she informed the residents about the day the meeting would take place, which left me wondering if it would have been done without my visits in Liberdade. For the following two days, I would remind residents about the event, and even got the team to provide me with the time it would start (an important detail that the farmers simply did not know or remember). Several residents would later thank me personally for disseminating the information about the meeting, saying that without it, they would not have been aware of it. Other than my limited advocacy, there

was little attention paid to whether the community knew of the meeting beforehand. The main avenue for communication with the residents that the project uses is through direct contact with Liberdade's president, further undermining the potential for the project's success, as will be explained below.

7.2.1. The leadership conflict

As of May 2016, Liberdade was marked with a deep leadership conflict which had the president of the community and the vast majority of residents locked in a silent and paralyzing stand-off. The president is a highly divisive figure who elicits a great deal of antipathy and distrust in the village. In fact, the attitude towards him was classified as negative among 15 out of 19 interviewees (the 20th interviewee being the president, himself), with the remaining ones espousing a careful and often a visibly calculated indifference. The list of issues mentioned by the residents in relation to their leader is extensive. On a normative level, he is consistently accused of overstaying his presidential term:

The main question here is that his time [has already passed]. He should not be president right now because he's been president for four years and he only should [have been] for two. So, we were supposed to make an assembly, a council, to choose another president. It was his responsibility to [convene] the council, to make a vote to choose another president. But he's ignorant³² and he said: "No, I won't do that because..."

[Eugênio, adult resident]

While residents' accounts are not consistent in terms of how long ago the community leader was elected, they all agree that the term of two years has long been exceeded. In addition, as the latter quote indicates, the local governance structure means that the president is the only individual legally capable of calling a new election, leaving the community completely helpless if the leader fails to do so in time, whatever reason for that may be.

Residents also quote their leader's personal traits such as stubbornness and authoritarian nature as reasons for his unwillingness to step down and allow the community to select his successor. He is most commonly described as:

³² 'Ignorant' (*ignorante*) is a malapropism, which in Creole means "to become angry, to consciously assume an attitude, especially in combative circumstances where the dignity of the ignorant is in question" (Crang and Cook, 2007, p. 50).

a complicated person to work with. He thinks that he's better than everyone, that [he] is a leader only because he has high potential of agricultural production. But no. This doesn't make him a leader. Because a leader is someone that is chosen by the community and who... fights for the community, and he does not do that.

[Eugênio, adult resident]

The most common complaint lodged against the president is his failure to communicate with the residents regarding the pressing needs of the community. He is said to be working alone or with a narrow group of allies, ignoring younger and older resident groups alike. Interviewees spoke at length about the lack of meetings with the president or any kind of common activities at the community level such as cutting down the grass in the *quintal*, and the consequent falling apart of the residents' association which had elected him in the first place:

He doesn't do *anything*. Anything, anything. He hasn't done anything for the community. (...) He should schedule meetings with the community to talk about the problems of the community, talk about the cleaning of the community... Try to find someone to go to the *Câmara* and talk about the community. Try to find water for the community, and things like that.

[Zena, young adult resident, emphasis in original]

This is echoed in the words of another frustrated resident:

The president normally works alone. How can an association be one person? So, he's ruling the community alone. So, he does what he wants, and it cannot be this way.

[Rita, elderly resident]

A related accusation made by the interviewees is the president's failure to share information on different projects and initiatives that arrive in Liberdade. They independently mentioned three instances where this allegedly happened. First, the MoARD sent a technical delegation to Liberdade in order to investigate the caterpillar infestation in the district. The officials, which included the Minister for Agriculture, visited only the field of the president (his friend). The president did not notify the community about the rare event that a visit from the Ministry is. Another interviewee mentioned a meeting forming part of a chicken vaccination program, which reportedly took place without most of the community knowing about it. Luckily, she was able to attend thanks to living close enough to the community shed to hear the commotion

inside. Finally, another interviewee recalled seeing a delegation from the Taiwanese Technical Mission along with a reporting team from RTP, a private TV broadcaster, meeting with the president:

Yesterday, a team of RTP (...) came here with the Taiwanese, took him [the president] and they went somewhere. We don't know what they came here to do. So, the situation is like this. Most of the time, he'll do the things by himself, and he's the only (...) one to have benefits [from] this because nobody else knows about this project. The project or investments that are done here. (...) And the only time that he informs the community about some projects is when there is no way to do... to avoid it.

[Samuel, adult resident]

The lack of communication between the president and the rest of Liberdade's residents constantly feeds an atmosphere of distrust and suspicion. Most people believe that the president simply does not care about the community and is chiefly motivated by his personal interest. He rarely speaks to his neighbors, and when he needs to announce a consultation meeting for a project, he tends to rely on the help of his few allies, including members of his family, in doing so (in fact, shortly after the election, he installed his cousin as vice-president after a fallout with his running mate and original holder of the post). These accounts are supported by regular observations conducted in Liberdade. With several exceptions, the president does not spend much time in the community during the day despite living there. This may be due to his owning a business outside the village in addition to having a field there, which appeared to consume the bulk of his time.

Some accounts, however, suggest that the president may be more politically active in the community than is normally assumed. One interviewee indicated that every time someone attempts to depose him by organizing a general meeting, he manages to bribe or otherwise convince his potential political contenders not to pursue their plans:

There are people here that are capable of taking the president off his place and [organizing] another election. But every time we try to do something, there is always someone who goes and speaks to the president. And when we are close to the day to make election or something like that, normally, the president tries to pay people to [abandon] this attempt.

[Eugênio, adult resident]

Being clearly one of the wealthiest residents of Liberdade (if not the wealthiest), it is plausible that the leader uses his financial advantage to remain in power and adopts a divide-and-conquer strategy to do so. In the meantime, the residents talk extensively among each other about the problem without ever being able to confront the president directly. All the attempts to topple their leader had failed, and interviewees spoke at length about the community's lack of courage and organization as the reason for their inability to solve the political crisis.

The president's counter-argument to these points is that certain groups in Liberdade, as was already mentioned earlier in the chapter, are not 'fit for development.' In addition, instances of personal unpleasantries, particularly with the younger residents who are his fiercest opponents in Liberdade, only serve to fuel the conflict:

We have very big weeds here. And so, there came a tractor to work my field here. (...) Two young people came here to speak with me: "You as the president, why don't you take the tractor and have it cut the grass here? Why don't you have it cut the grass? You can talk to the driver to cut the grass." I said no. Why? The language. The behavior. (...) Lack of respect. Because if I am the president, I am not for doing it. I am here to decide, and also collaborate to make it happen. But the expectation that I have to do it because I'm the president? No. We have a president of Republic who is the head of state. He's only there to see, to inspect. It's the government that has to do. The government does what? The government governs.

[Felipe, adult resident]

The above quote, in addition to demonstrating the difficult relationship between the leader and his fellow residents, reveals the interviewee's authoritarian outlook on governing. The expectation that the president should merely direct the activities in the community clashes dramatically with the expectation of the residents who believe the role requires a lot of groundwork and self-initiative. People expect the president to be an active advocate for Liberdade when dealing with local authorities and the national government. However, this stands in sharp contrast to the president's vision of what the position should entail. Towards the end of the interview, he openly admitted that:

For me, (...) they can form assembly and elect a new one. A new president that they will manage to manipulate. Manipulate. (...) Or, they want to determine who stays and who goes. And they have to strike. But they can't. No president can allow a

thing like that. Or we develop the community or the country, or we don't.

[Felipe, adult resident]

Thus, the president considers himself the local guardian of development for Liberdade, development which could be lost if someone else – someone easily manipulated – becomes elected as leader. Evidently, Liberdade is a theater of conflict between at least two very different visions of what development is and how to achieve it. The president, a highly entrepreneurial individual and a relatively powerful and well-connected figure, sees development through increasing agricultural production and increasing income, much in line with the goals of the adaptation project. The community, on the other hand, sees meeting many of its basic needs – such as drinking water – as more important and immediate concerns which are to be achieved through direct lobbying in the capital or with local authorities. The president's rule thus acts as the police order of the community, not allowing any alternative visions for development to challenge his own agenda. As such, the political is disavowed from community governance, and any kind of opposition – silenced.

In terms of the significance of this leadership crisis for the adaptation project and the way it has so far unfolded in Liberdade, it appeared that the president was aware of the most recent consultations, as it is usually up to him to spread the word among his fellow residents. However, this leaves him with significant power to decide who is informed and who is not, a practice that he admitted to engage in during his interview:

Because sometimes, I pass a message to this one, and then she starts expressing herself badly about me. And so, I feel ignored. I don't pass information to her [anymore] because she doesn't want development. Because when I bring her the message, it's a good message. From whom? From the Minister of Agriculture. And so, I also can go to the Prime Minister, also bring the message... But inside, I see ignorance of the people... That when I deliver this message to Michael: "Yesterday, I met with the Minister of Agriculture and I spoke about this and that about the project." Forgive the expression: "I don't want to hear about it." What does it mean: "I don't want to hear about it"? And so, it's not worth it to pass messages. I'll look for another person with the mentality to tell them, what I and the Minister talked about.

[Felipe, adult resident]

The practice of selective communication is evident here, and demonstrates that the relationship residents have with their leader – the main focal point for the project in

Liberdade – directly influences the amount of information they receive about the intervention. Conversely, such political differences at the community level may cause certain members to boycott an initiative in which the supporters of a different political party or community faction rule the roost, a suspicion certain residents and project staff members raised when trying to explain why some people simply do not come to project meetings. While field research was carried out before the launch of project activities in Liberdade, the way in which consultations were conducted suggests that the political conflict at the community level may hinder their success in the community once rolled out, and risks resulting in highly inequitable outcomes where the leader and his allies can claim its benefits. Similarly, his political opponents are very likely to be sidelined in the process. This, in effect, means that the likelihood of participation in the project was affected by the relationship families and individual residents had with the president and, on the other hand, the density of one's social network, since the interviewee quoted above learned about the meeting from other residents. What is especially important is that while the project is aware of the leadership crisis in the community, no proactive measures were taken to maximize everyone's involvement in the consultation.

During the consultation meetings, residents of Liberdade would openly speak about community needs and issues, including the leadership crisis, much to the president's chagrin and defying what Mosse (2001a, p. 171) calls the “‘micro-politics’ of consensus” that participatory events are often wrought with. However, such brief spells of sincerity and engagement, or ephemeral moments of the political, were often hurriedly dismissed by the staff, either because they touched on sensitive issues such as the local political conflict, or because the requested assistance did not fall within the scope of the project (Mosse, 2001b). When during the March 2016 general meeting one of the residents shouted “There are people who don't want to come!” – the delegate, despite being aware of the difficult leadership situation, was visibly taken aback and became uneasy. Rather than engaging with the comment and trying to explore the reasons why certain community members refuse to participate, the meeting proceeded uninterrupted. In this way, a rare opportunity was missed for openly discussing the issue. This conflict-averting move on the part of the delegate was one of the most visible examples of the project staff attempting to manufacture an adaptive consensus, where disagreement is silenced to preserve the *status quo* and ensure a smooth operation of the project.

This evacuation of ‘the political’ from public encounter is not unique to the project in question. In April 2016, the community was visited by a delegation from the

Taiwanese Technical Mission with a proposal to set up a pig-breeding project that would use the abandoned animal raising infrastructure in the village. During the meeting, it transpired that the community does not have access to drinking water, which was stated as a pre-condition for project launch by the technicians. The topic of the meeting then moved from describing the goals of the new project to discussing why there is no running water in the village. The president took to the fore and presented his perspective on the situation, largely blaming other community members for their lack of unity in solving such problems, which led others to disagree and openly protest his statements. The meeting conveners reacted immediately, stating that this is an *internal* community issue which its members must deal with outside of the meeting. Again, the moment of ‘the political’ in a community where conflicts exist but are silenced was abruptly ended by the staff of the Taiwanese Technical Mission. This is common practice, as political issues, even at the community level, are aggressively avoided, with attention focused instead on the more economic and technical problems and solutions. Community politics is seen by development practitioners as an internal issue that, while acknowledged, is rarely incorporated into planning and design.

7.2.2. Spatial inequality

Another aspect of the community life that the project fails to take into consideration is the spatial inequality of the village. Liberdade can be divided into two major areas: the central part and the peripheral part. As explained earlier, the majority of residents live in former plantation workers’ quarters (*senzalas*) or wooden houses built close by. The structures are placed around the rectangular *quintal*, or courtyard – the center of the entire community the size of a small soccer field (see Figure 4 in Chapter 4). However, due to population growth, residents have gradually started to build houses *abaixo* (‘below’), down the road north and along one of the two irrigation channels. The density *abaixo* is much lower than around the *quintal*, with small groups of houses scattered across a larger area. The distance between the centers of the two sub-parts of Liberdade is around 1,000 feet or less than a five-minute walk. The residents living in this peripheral part of the community praised being able to live away from the center, valuing the peace and quiet that the spatial remoteness of this kind provides:

I can just say that, for me, I live in a very private situation. I don’t mix... I don’t have problems, and I don’t mix with the community. I prefer staying here in the quiet and private situation.

[Graciela, young adult resident]

In general, the residents ‘below’ do not actively seek to be included in the community matters. As mentioned by the interviewee, they value their separation from the problems of the center. However, being spatially removed from the *quintal*, those living ‘below’ have also been relatively excluded from community governance and by extension from participating in development projects. In the words of a resident of the area talking about the March 2016 meeting:

So, I wasn’t invited. I was sad that I wasn’t invited. It’s normal for this to happen. Sometimes, I hear someone talking about this and I run to try to be part of it, but sometimes, when I arrive, they’re in the middle, so I try to follow it from the middle. And I was sad because I wasn’t invited to the meeting.

[Eduardo, young adult resident]

In this case, the interviewee had overheard someone talking about the meeting and so hurried to the *quintal* where it took place. This demonstrates that he and his immediate neighbors often are forgotten in the already limited practice of informing the community about collective activities. As such, their vulnerability is compounded by residing in ‘the periphery of the periphery,’ or the most remote parts of an already marginalized rural community.

Perhaps even more importantly, being located downstream of the *quintal*, the residents of peripheral Liberdade have complained about having limited access to the water from irrigation channels compared to those living in the center. One reason for this is that the downstream section of the network receives far less attention in terms of maintenance. This may result in water not reaching the final parts of the system. A related consequence of this spatial unevenness is that those living away from the village center, are regularly deprived of water by upstream users:

I: And do you have to share water for the field, right now?

P: Now, as it’s raining, I don’t need this water coming from the ditch. But when it stops, I will probably need to do the same system where you need to open a channel to bring water to my field.

I: And can you open the ditch anytime you want? (...) You don’t have to ask anybody from up there if you can open it or...?

P: No. When people up [there] finish, we can open it here. (...)

I: So, if you opened it when they're using it, would it create problems?

P: Yes.

I: And what would they do? What would the consequences be?

P: We have to wait till they finish (...) to avoid problems and discussions among the neighbors. So we must wait. We just can open if there's enough water for everyone. And in this case, just in the river, we can change that... But --- canal, river, there is not enough water, there isn't water for everyone.

[Olinda, young adult resident]

Interviewees reported periods as long as two weeks when access to channel water would remain restricted during crucial times. Having to wait this long to water the crops, and particularly maize, can contribute to significant decreases in yields towards the end of the season. Thus, the spatial location *within* the community also determines people's vulnerability to climate impacts. This, however, is entirely ignored by the project, which imagines the community as a spatially and socially uniform entity where knowledge and information travels to all residents regardless of where they live. Meanwhile, Liberdade is not uniform, at all. The sections on the leadership crisis and the spatial inequality have hopefully hinted by now at one of the major social characteristics of Liberdade and arguably many other rural communities in São Tomé and Príncipe – low community cohesion. If unaccounted for, this trait is likely to bring about far-reaching consequences for the success of the adaptation project.

7.2.3. Community cohesion

Indeed, Liberdade, as many other local communities in São Tomé and Príncipe, is characterized by a low level of community cohesion, also commonly referred to as social capital (Ishihara and Pascual, 2009). The interviewed development practitioners consistently pointed to São Tomé's history as one of the key reasons for this:

São Tomé has had a very troubled history, you know. Slavery is really, really... There's nothing better than slavery to destruct a society. Destroy a society. Completely. And particularly, the process that happened here, the *roça* system, was designed to break all kinds of social ties between people. Whether the family ties, whether the cultural ties, religious ties, affects... So,

the colonists have done anything they could to destroy these ties as a dominance strategy.

[Thomas, NGO, São Tomé]

As mentioned earlier, under slavery and the *roça* system, colonial plantation owners exerted total control over their workers, overseeing all aspects of their lives – work, education, healthcare, even food – from cradle to grave (Seibert, 2006). The *roça* culture is arguably still very strong among Santomeans who engage in collective activities with scarce enthusiasm, to say the least, and frequently with much suspicion towards each other. Indeed, trust is a rare commodity in the countryside,³³ and many practitioners lament the fact that rural residents engage in collective activities very reluctantly:

And not all of them are organized. Most of them are... It's like they can't work together as a community. Most... They have some, a leader in the community. They [have a] residents' association, yes. But to work together, it's more... it seems like more difficult.

[Inês, project staff member]

Their disillusion stems from the fact that this distrust at the community level has a tangible, negative effect on development projects:

Five years ago, five-six years ago, you arrived in some communities like Praia das Conchas... You said: "Okay, which organization you have here?" They said: "We don't have any organization. Everybody's alone. We don't like organizing ourselves." "But how will we work together? Do you want to work with Michael?" "Never!" "Do you want to work with Maurice?" "Never!" A community, eh? 21st century. They don't have any organization. It was a surprising situation because I come from a country where you arrive in a village, there is a head of the village, there is a group of women, of men, of youth, you know? Everything is there! "What do you want? Name it, you got it!" But you arrived in a place where the farmers... No-one in charge! No-one is in charge! Okay?

[Maurice, project staff member]

During one of the field trips conducted by the UNDP staff in Lobata to verify the effects of the AAP project, lack of unity (*união*) among residents was cited by

³³ However, the situation in the Autonomous Region of Príncipe is reportedly different, with local villages displaying a higher degree of cooperation and community spirit, according to project staff.

former beneficiaries as the reason for the dilapidated state of the *lavanderia*. The structure had been installed less than three years before, but with some residents reportedly failing to do their share of maintenance, which had been entrusted to the community, the *lavanderia* fell into a state of disrepair close to rendering it unusable. In fact, the AAP is a textbook example of how project sustainability constitutes one of the biggest issues the development industry must face in São Tomé and Príncipe.

Santomeans seem to greatly value their privacy, and when prompted about different social relationships at the community level, many sought to avoid a direct answer:

I: So the people, the families... [You] mentioned that some people live isolated and they don't mix I guess much with the people... Why is that?

P: This kind of isolated it's like you don't mix a lot because you want to avoid problems, avoid discussions... It's not because you are not familiar or related with the community or involved with the community. It's because you prefer to live like this, to avoid problems, avoid discussions, and be peaceful.

[Pedrina, adult resident]

This peaceful, conflict-averse co-existence is occasionally upset by rows among families or neighbors, but – as mentioned in Chapter 4 – residents do not see them as anything abnormal or of greater concern. In general, they follow the rule of 'each to one's own' and carefully avoid entering broader conflicts. While interviewees also mention occasional bursts of community spirit – particularly during medical emergencies requiring to arrange hospital transport or medication – peaceful co-existence is not tantamount to unity. Collective activities happen very rarely in Liberdade, the most common one being the already-mentioned group of young men cutting the grass in the *quintal* so that they can play soccer there. This lack of unity explains why the leadership crisis in Liberdade is so persistent, as no resident is willing to confront the president without a broad political support of the community.

Given this problematic background that makes the creation and functioning of associations very challenging, the reliance of the project on newly-created CBOs – a problematic trope in the development world from which lessons should have arguably been learned decades ago – is bound to greatly undermine its performance in Liberdade. In the words of an interviewee who has lived in the country for over 12 years:

P: [A] lot projects still do that. They put in their logical framework: “Okay, build an association.” You know? You don’t build an association. You, probably, you can base yourself on an existing initiative, but if you, if you... If you think that your project will, or one of the results of your project, is building an association of people and then these people will carry on this... It’s a mistake. People don’t do that.

I: You know, this adaptation project has 30 communities, and it’s going to create associations in every single one of them.

P: That’s a big mistake. (...) They [projects] offer, they offer to help them build an association because they say: “If you don’t build an association, you’re not gonna benefit from a project. You’re not gonna benefit from the project.” So it’s really a threat at some point. So, I think it’s really a wrong approach. So, you shouldn’t, you shouldn’t build associations as part of projects.

[Thomas, NGO, São Tomé]

The experience of previous projects in the country supports this view. The already-discussed precursor of the adaptation project – the Africa Adaptation Program (AAP) – had created an association to manage the newly-installed irrigation system and facilitate collective horticultural production in one of the rural communities in Lobata. When the UNDP team visited the site for a follow-up in early March of 2016, the system had long been abandoned, the building constructed specifically for the association disused, and the motorbike purchased for the association to deliver products to local markets – sold. This demonstrates how the socio-cultural context of the islands makes creating successful institutions extremely difficult on the one hand, and how neglectful the design of the project was of this context, on the other.

In addition, the way in which associations are created does not guarantee that the interests of the wider community will be represented. In the case of Liberdade, the village president established himself as the leader of the climate change platform, with the more prominent members of the community forming the rest of the contingent. The degree to which these organizations represent the collective interest of the community (assuming one exists) is hardly ever questioned – but not necessarily overlooked – by the staff who are forced to maneuver in a highly anti-communalist social environment to begin with. Nevertheless, during the visits to the community and throughout the interviews, it became obvious that the climate change platform that the project had created in mid-2015 was not functioning. One of the official members of the platform

indicated during an informal conversation that since formation during a consultation meeting with the community, the group had not met once. The same was true for at least three other communities in the district, as evidenced by the project staff's field trips to the area. The mounting evidence here seems to point to one simple conclusion: associations generally do not work in São Tomé and Príncipe.

7.2.4. Participation and gender

Interviews and field notes have revealed another consistent theme during analysis – the gendered nature of participation in the adaptation project. As was mentioned in the previous chapter, gender disparities are given some prominence by the project document as a potential factor affecting women's ability to benefit from the initiative (access to natural resources, age, education, wealth, power, and other factors being completely omitted). The gender disparity in this context can be demonstrated quantitatively. Out of the ten female interviewees, only one could be considered to be participating in the project, compared to nine out of ten male participants. Why this staggering difference? Feminist development geographers have observed that climate change hits women disproportionately hard due to cultural norms and the consequently limited access to political power and economic resources (Edvardsson Björnberg and Hansson, 2013; Figueiredo and Perkins, 2013). This is also the case with adaptation, of which the costs and benefits are likely to be distributed unevenly between genders. In Liberdade, the division of labor between men and women does not contribute to the latter participating in meetings or forming part of the institutions created for the purposes of the intervention.

First, women are traditionally expected to look after children. This is precisely the reason why four out of ten women interviewed indicated the lack of a kindergarten as one of the community's biggest problems (compared to no men expressing such a concern). Relatedly, most of the household duties such as cleaning, collecting water (the closest source of drinking water is over a mile away from Liberdade), cooking, and doing laundry also fall on the back of women, further limiting the amount of time they can contribute to other productive activities. In addition, collecting firewood to cook and distill *aguardente* is becoming increasingly burdensome due to decreasing availability:

I: Can you talk more about the problem with the firewood?

P: I am the one who tried to find my own firewood in the field. But it's hard to find, even to cook now, it's hard to find. [Sometimes it's wet, sometimes it's just not there.] We could

take not dry firewood but we would have to dry it here and there is not enough sun to do that. And we have to walk more to find trees to take firewood. (...) We have to walk until [the intersection with the main road], and sometimes we have to get inside fields of other people and sometimes, people don't like that. They try to [chase] us out of their field. Sometimes, we ask them to go to there, to try to find firewood, and some of them accept, some others don't accept. They say that we are going there to see what they have to go later to steal...

[Zena, young adult resident]

Thus, the increasing difficulty in finding suitable firewood is bound to further limit the amount of time women have for participation in development initiatives. It also means that, based on the above quote, the female residents of Liberdade are more likely to find themselves in hostile situations with landowners.

Importantly, women are exclusively tasked with selling agricultural products at the nearby markets, predominantly in the capital. Usually, a female resident of Liberdade will visit the main market in the capital or a smaller one in the vicinity around three times a week. This considerably affects the likelihood of women participating in the project:

I: Did you know about the meetings? Were you informed by the president about the meetings? If you remember...

P: They informed about the meeting, but I went to the market to sell the products, and my husband went to the field.

[Elodia, young adult resident]

Leaving the community for the day makes it impossible for a seller to participate in an *ad hoc* meeting, compared to men who normally stay in the local area and work in the field. However, even if both spouses are nearby when a meeting is convened, women are more likely – even certain – to remain in the field or at home while their husbands or other male family members participate in project-related activities. In fact, a number of interviewed women indicated that not only are they not able to participate, but their husbands and sons often do not share with them the information discussed at the meetings:

When they have meetings in the community, they always inform me about them. But so far, I've never participated in any. I always send one of my sons, my second son who is already 21

years old, to participate. Even in meetings related with political subjects or about the community, I haven't participated, so far. It's always my son. (...) And when he hears something, he doesn't share the information with me.

[Graciela, adult resident]

Most female interviewees felt uneasy about discussing gender-related disparities in the village. For this reason, as well as due to their higher level of distrust towards me, this account of the gender disparities of Liberdade should be considered incomplete. However, what can be asserted with confidence is that the cultural norms that see women as solely responsible for taking care of children and domestic duties severely limit their ability to participate and take advantage of development interventions. This also translates into women collectively possessing relatively little power to co-shape decisions on community matters. Often, even if women are present at meetings, their participation is limited:

I: And what about women and men here in the community? Do you think that men and women have the same kind of power in the community when they make decisions about the community, about the family? Are they equal?

P: I don't think so. For example, sometimes, when we are in meetings, and a woman has something to say, an opinion to say, if her husband is there, she will not say anything just because he is there. Or sometimes, he will not let her say anything, even in decisions related to the family or the community.

I: So, do women talk among themselves about these problems here, at all?

P: They usually talk when they go to the river to wash clothes, and they have a good environment to speak among themselves. They say: "I would like to talk, to say something, but as my husband was there, it was impossible for me to say anything."

[Nicoleta, young adult resident]

It is important to stress here that the domination of men in the community goes largely unchallenged. In fact, many of the women who were asked the above question either refused to answer it or cut the response short by simply asserting that everyone is equal. However, there are signs of initiatives taken by women in Liberdade to improve the situation and make women less dependent on their husbands or other male family

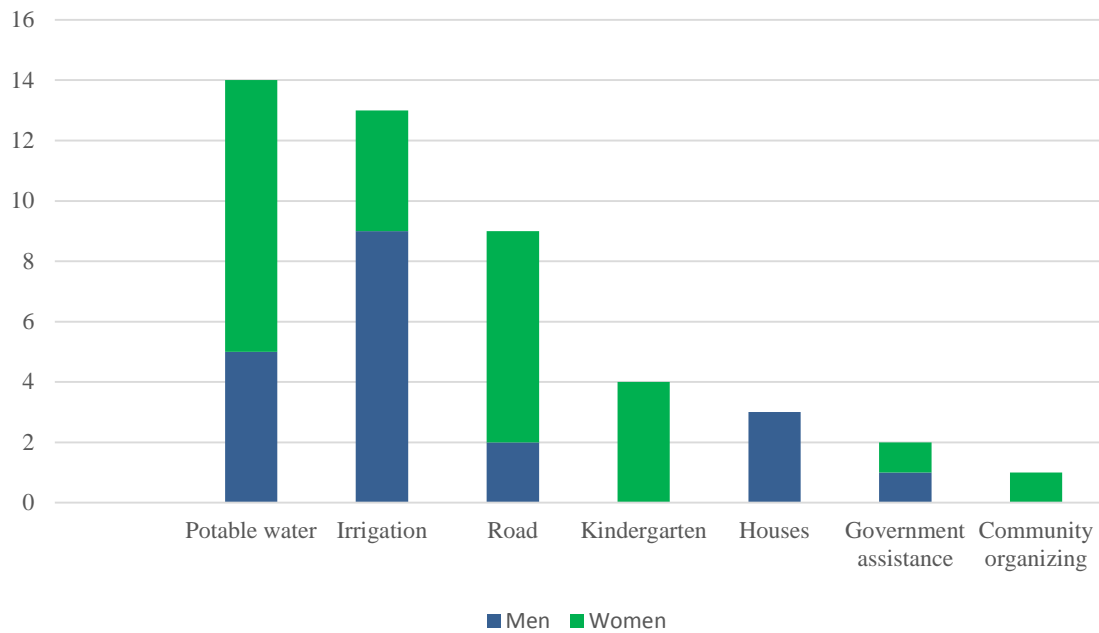


Figure 10. Community needs by gender.

members:

Usually, men and women, they don't mix. Men, particularly young men, use to sit here in the center and do nothing. But women, they just take care of the families, what they need to do (...). They have the problem to take [care] of like family and house and their life. And that's why we want to create a women's association. Something separate from the men.

[Rita, elderly resident]

In this case, there is an effort to recreate a women's association that had fallen apart for unspecified reasons. In general, however, the above accounts testify to the gendered stratification of Liberdade and other local communities in the country. This disparity is not a secret to any development practitioner who spends time in the field. Yet, while the adaptation project is officially committed to addressing the differentiated experiences of adaptation to climate change among men and women, very little was done to secure a continuous participation of the latter during the consultation process. As a result, out of a total of 64 Liberdade residents surveyed during the March 2016 consultation events, only 12, or less than 20 percent, were women (CATAP, 2016).

This effectively means that the adaptation and development needs of women are unlikely to be considered in the same way by the project. A collation of all necessary improvements listed by the community residents during the interviews reveals that these needs are unequivocally gendered (Figure 10). Farming being a predominantly masculine occupation, it is no surprise that the need for irrigation is identified to a large

extent by men. Coincidentally, this is also the only investment suggested by the community that falls within the scope of the adaptation project. All the other major needs are listed chiefly by women: access to potable water (due to their domestic work), a new road (due to their regular commute to the market), and a kindergarten (to reduce the amount of time spent on looking after children). The focus of the project on agricultural productivity relies on a simplified understanding of community life, whereby increased earning by predominantly male farmers will benefit, or ‘trickle down to,’ the women through higher household income. Critical feminist scholars have indicated that this approach does not always work, and in some cases may contribute to further economic marginalization of female household members (Tschakert and Machado, 2012).

7.2.5. Access to the means of production

The issue of access to natural resources is of paramount importance when discussing the potential local impacts of adaptation interventions. It goes without saying that land and water are the main productive assets in rural communities, therefore an analysis of who has access to what is necessary for any kind of investigation of vulnerability.

Land grabs done by the hand of private capital or governments have been identified by neo-Marxist thinkers as the most formidable examples of dispossession in contemporary times (Harvey, 2003; Moore, 2004). However, the situation in São Tomé and Príncipe, and by extension in Liberdade, is much more complex than a fragmented, impoverished class of land owners being separated from their means of production by foreign capital. This is because through the already mentioned *títulos provisórios*, land officially remains property of the state. As such, the state holds the key to the consolidation of land assets, making it relatively hard for lessees to transfer titles.

Nevertheless, and based on local accounts, the trend in Liberdade is towards consolidation of land holdings. This seems to be confirmed by a number of absentee land owners who own disproportionately large plots of land in the community, the number of whom was estimated at around 20 by Fabio. This includes an employee of a large development organization who has managed to secure a sizeable parcel of prime land located very close to the *quintal* despite not coming from or residing in Liberdade. Moreover, the plots of Liberdade’s president and ex-vice-president, or members of the village elite, are also disproportionately larger than those of other community members (up to approximately twice the average plot size of 1.5 hectares in the village). A

process that runs parallel to this gradual consolidation of land assets is the creation of a group of predominantly young landless people in Liberdade who report having difficulties securing their own provisional titles from the state:

I: I used to have a field. My brother gave it to me but he took it back. So now, I just buy corn and I don't have a field.

P: So, you don't have a field here... Are you the only one here who doesn't have a field?

I: No, there's a lot of people here who don't have a field. Most part of the people in Liberdade have fields, but there's a lot of those who don't.

P: And why don't you have a field? Back in 2000, I think, everybody was supposed to get fields. Why don't you have one?

I: Because I was too young. Most of the people who don't have fields today, it's because they were too young when they distributed the land.

P: So, when somebody grows up, how do they get a field?

I: Who doesn't have [a field], usually receives [one] from a parent when they die, or a brother or sister gives them a piece of land. Or [they] pay a rent to someone to work on this field, also.

P: So, it's impossible to get it from the state?

I: I don't know... I don't know.

[Jorgina, young adult resident]

In this case, access to land is either secured through a provisional title from the state, which is reportedly very difficult to obtain, or through a *de facto* transfer from a family member. For a variety of reasons, this leaves many residents with no land which they are legally entitled to, and so informal use is very common. For instance, Fabio admitted allowing a sharecropper to use the less fertile of his two fields. The gravity of the issue is described by a young male resident of the village as following:

There [are] many families that are in the same situation that I am in. That is, I work in the field that is not mine. It's my cousin's who is in Cabo Verde. And this creates instability in my life because someday he can come and take his field for himself. And I would be without land to work in. And I know that there

are some, there's a lot of land here in Liberdade that is abandoned. And we cannot work on that land because in the future, it can create problems for us.

[Sérgio, adult resident]

Regardless of whether there indeed is enough land for everyone in Liberdade, this kind of insecure land access that is dependent on the good will of family members or neighbors adds to the precariousness of the above interviewees' livelihoods. Moreover, landlessness creates a vicious cycle of financial dependence between local landowners and the growing labor class, as many scholars concerned with issues of land access have noticed (Taylor, 2014). This financial dependency is made even more dangerous through the unpredictability of climate impacts.

The precariousness or lack of access to land that affects many Liberdade residents not only makes them particularly vulnerable to climate impacts. It also makes the adaptation project almost irrelevant to them. Many have complained that, as far as they are concerned, the project has very little to offer:

And normally, the project is for the people who have fields. And because I don't have one, I don't care much about it. (...) Normally, everyone can go, but when we arrive there, they ask: "Who has a field?" And who doesn't have a field, goes away.

[Zena, young adult resident]

The landless are thus excluded, somewhat by default, from participating in and, more importantly, benefitting from this particular adaptation intervention.

A somewhat similar dynamic of increasing precariousness can be observed with regards to access to water. As already mentioned, the irrigation system in Liberdade remembers the colonial times and most likely has not been renovated since independence. Meanwhile, the vast majority of Liberdade residents rely on rain-fed agriculture, and as many as 14 out of 20 admitted in their interviews having no access to the local system of water channels. Not surprisingly, those with access, including the president, the ex-vice-president, and absentee owners, reach the highest yields in the village, while the increasingly erratic rainfall patterns make the livelihoods of those whose fields are located further downstream or away from the channels increasingly tenuous.

However, access upstream can also be contested. An elderly woman from Liberdade, for example, talked about a violent incident rooted in differentiated access to water in the village:

I have to carry the water from the channel that passes close to my field. But I have problems with the neighbors from the fields because they only want things for themselves. (...) Sometimes, when I go take the water, they don't like it. They will create issues. And several times, they hit me with the side of their machetes because I didn't have a grown-up son... The channel is close to my field but they found a way to try to block it because they don't want me to get water.

[Rosaura, elderly resident]

Water is the most valuable commodity for Liberdade's farmers, and the poor state of the irrigation infrastructure, combined with the increasingly unpredictable level of the river that feeds the local system (see Pictures 5 and 6 in Chapter 4), means that the amount of water running in the channels is often insufficient to reach all users, leading to hostile incidents. As evidenced by the quote above, individual bargaining positions are further weakened by gender and age. Other examples of those unable to take part in the project include people who do not have the necessary amenities, such as enclosures for raising livestock when animals are offered. Moreover, in most cases, participation in consultation meetings of the kind organized by the adaptation project does not involve any *per diem* payment, which effectively means that participation has a price tag – the amount of money that could have been earned or production that could have been achieved on the day, or even during the several hours, of the meeting.

The *aguardente* production process outlined in Chapter 4 exemplifies the unequal access to the means of production of a commodity that the community relies on in times of climate uncertainty and economic hardship. Making *aguardente* requires significant inputs that the most vulnerable members of the community may not be able to afford. Even if they could, they would run the risk of urban intermediaries not keeping their side of the bargain and appropriating the alcohol without payment. This also shows how these kinds of relationships of exploitation are not circumscribed to the community itself, and reach far beyond its borders. On a positive note, the village processing centers mentioned earlier have the potential of democratizing access to the means of production, if they are set up in such a way as to enable everyone to use them without excessive financial or social burdens.

It is important to underscore that there are other factors that contribute to one's ability to participate in and benefit from the project, such as education levels or marital status. Several residents expressed concern that while they gladly participate in consultation meetings, they do not fully understand them, as project staff often use technical language that is not immediately clear to poorly-educated farmers. These

factors can intersect and multiply the difficulties faced by individuals, as landless, single women with little education, for example, are in no position to establish themselves as active participants in the project. These internal disparities are not taken into consideration either in project design or during the consultation meetings. The tools that are used, such as the aforementioned rapid participatory appraisals, are not useful for uncovering and analyzing local stratification which is of immense importance for the project's long-term sustainability and for ensuring equity (Mosse, 2001a). This, I argue, runs the risk of the project providing assistance to those who are far from being the most vulnerable to climate impacts in Liberdade.

7.3. Exclusionary participation: Adding insult to injury

As a result, those at the bottom of the social ladder become effectively excluded from adaptation activities. Instead, they may be offered livelihood diversification (with careers in trade and other services), or are, more likely, ignored, altogether. This differentiated capacity to participate and to be included, in itself, also contributes to tensions at the community level, as described by this relatively wealthy community member who runs a local shop:

I: And those families that don't participate usually, are they the poorest families here, or does it not matter how much they have?

P: Yes. Normally, they are the poorest people who don't participate. And also, when they see others receiving material, equipment, they start creating problems or envy or things like that because they participated.

[Rita, elderly resident]

Rather than seeking to address the needs of the most vulnerable residents, adaptation projects often prioritize those with disposable income and productive assets, who are seen as better able to offer something to the project. This is highly problematic, as it translates into the adaptation project effectively excluding those who are the most vulnerable to climate change impacts in Liberdade on the one hand, and contributing to the already growing socio-economic inequalities in the community, on the other.

If there is one key insight that critical adaptation scholars have made, it is that successful adaptation initiatives cannot turn their back away from the kind of local inequalities described above. However, the very setup of the project ignores these observations entirely. As a results-based enterprise on strict deadlines upon which the timely disbursement of funding depends, UNDP and the government have no other

choice than to work with those community members who are the most likely to be successful in adopting the suggested adaptation strategies. Usually, these individuals are more integrated into the local market than the most vulnerable groups, and thus present the highest chance of success in implementing the proposed market-based adaptation strategies. In institutional terms, they are called ‘model farmers’ (*agricultores de referência*) and in the case of Liberdade, the model farmer is the community president who boasts the highest output in the village. What follows is a justification of this approach that favors the more productive smallholders from the outset by a high-ranking UNDP staff member:

And in some cases, you don’t necessarily want to select the poorest or the most vulnerable or the landless because the capacity to demonstrate the value of a specific adaptation practice is just too difficult. And so, for instance, in this [country name] project, the first phase targeting the communities who had some... You know, enough, I don’t want to say resource ‘cause it wasn’t necessarily that. It was maybe the capacity, the education, the access, whatever it may be, to actually test these new practices. They were able to. Because if you work with someone who has no land or is very dependent on the production of that land for their day-to-day life, then they can’t test new things because if it doesn’t, you know, work, then that’s a problem.

[Sally, senior Regional Office employee]

The rationale behind this approach is that while the more vulnerable households may be more risk-averse and thus reluctant to engage in new practices such as planting new crop varieties or investing in additional inputs (fertilizers, pesticides, etc.), farmers on a better socio-economic footing will be more effective in achieving demonstrable results. This also benefits the project itself, which is then better able to show a positive impact on the community’s resilience to climate change. The establishment of the CAPTs means that, according to a UNDP Country Office staff member, it is likely that the selection of the communities took into consideration their level of productivity, which – if too low – would make processing of products commercially unviable. In the case of the adaptation project, this approach is to culminate with organizing Climate Change Farmer Field Schools where model farmers’ demonstration plots would be used “to train and enlighten CBOs and community farmers on the safety and efficient use of agriculture inputs” (UNDP, 2014, p. 40).

However, this approach, while interesting and by some interviewees described as extremely efficient in creating local ‘buy-in,’ is a highly stratifying strategy. Rather than engaging with the most vulnerable members, it benefits those communities and individuals who are already in a privileged social, economic, and political position. In the process, the most vulnerable, rather than being prioritized by the project, are paradoxically left behind while the lives of their wealthier residents are steered towards a more ‘climate-proof’ future. And while everyone is officially invited and welcome to participate in consultation meetings, these procedural rituals do not translate into any kind of material benefits for the most vulnerable. Paavola et al. (2006, p. 264) pointedly observe that this kind of “empowerment without redistribution can be an insult.”

The highly uneven distribution of land and water, combined with the other unequal relations outlined above, has resulted in a gradual process of proletarianization of the community. People who are landless or have no access to essential means of production are left with no other choice than to diversify their income through labor and other productive activities. As mentioned in Chapter 4, many residents have become agricultural laborers (*funcionários*), who either work for or rent plots from local landholders. Young people in particular are known to be hired by their wealthier neighbors when fields require manual work, for example after the first rains or when the local guava orchards owned by absentee owners need trimming. Women, on the other hand, engage in domestic labor, such as doing laundry for those who can afford to hire help, washing clothes being one of the most time-consuming tasks in the rural household. Liberdade is rife with such relationships of exploitation of labor. Another coping strategy, as mentioned in Chapter 4, is the increased production of *aguardente* for sale, which means entering further relationships of dependency on urban intermediaries.

Thus, the post-political condition of the adaptation project erases inequality, discontent, and conflict from climate governance in São Tomé and Príncipe. These only became visible, if for a very brief instance, during consultation meetings with outside actors, but were immediately disavowed by the convening experts. As the previous chapter has demonstrated, the stated goal is to enhance local communities’ resilience to climate change impacts by increasing the productivity of smallholders and diversifying their sources of income. However, it must not be forgotten that any intervention is both a creative and a destructive act (Lefebvre, 1991). The project envisages new or ‘upgraded’ livelihood options that are resilient to future climatic stress. Their introduction will replace the existing and relatively informal modes of economic

production and social reproduction with more formalized ones that will further integrate local communities into the broader capitalist economy of the island and beyond.

From this vantage point, to paraphrase Moore's (2004, p. 89) words on development, adaptation to climate change *is* a process primitive accumulation. Thus, the community-based adaptation approach on which the project insists – imported into the country by development organizations through their own staff or contracted consultants – is likely to fail in this case, if one is to give any credence to the experience of the vast majority of projects to-date.³⁴ Whether this particular one will effectively contribute to increasing local resilience remains to be seen. What is of significance here is the fact that the unfettered confidence in humanity's technological ability to engineer its way out of the climate conundrum draws attention away from real-life struggles at the community level that are absolutely paramount for the success of top-down and autonomous adaptation, alike.

More importantly, narrowing down the issue of adaptation to increasing productivity or generating additional income closes the avenue for other approaches that can help understand why certain people are vulnerable, or for that matter why some of them are more vulnerable than others. In fact, so faithful is the project and its staff to the depoliticized, techno-economic, and resilience-centered perspective on adaptation that during one of the project training sessions with national partners, it was recommended to the participants to separate *social* problems (which are not included in the scope of the intervention) from those related to agricultural production and climate change impacts. This separation leads to a paradox in which poverty, while recognized as the biggest obstacle to project success, is not addressed by it directly:

I: What are the biggest obstacles that you have encountered in your work so far, and how do you think they should be overcome?

P: The biggest problem that I found in my work is the poverty of the country that has a lack of everything.

[Mariana, project staff member]

³⁴ That said, there exist some successful community organizations in São Tomé and Príncipe, for example the community association in the Porto Alegre area or a number of coffee and cocoa cooperatives scattered around the country. However, it appears that their success has been largely due to continuous financial and technical support, often for longer than a decade, which standalone interventions like the adaptation project simply cannot afford to provide, both in terms of time and funding.

That poverty is one of the major challenges for adaptation to climate change has been a mainstay of critical social science concerned with climate change. And while it can be argued that the project does address the issue of poverty indirectly, which it defines rather narrowly as insufficient income and low productivity rather than a “result of historical and political processes” (Gellner and Hirsch, 2001b, p. 162), the fact that poverty itself is viewed as a challenge to, rather than an object of, project activities exemplifies the disjuncture between the actual problem and what the problem is believed to be by adaptation managers.

Assuring delivery of social services is not within the scope of the project. The separation of poverty and vulnerability, which are unquestionably related and mutually reinforcing, has resulted in widespread fatigue and lack of engagement at the community level, as local residents often do not agree with the way the project has set out to increase the resilience of their livelihoods. Urgent social issues flagged by the community of Liberdade, such as the lack of drinking water, no kindergarten, or decrepit housing that remembers colonial times are not seen as productive investments from the project’s perspective, and thus ignored. Call for these services are muted, along with local residents’ political subjectivities and their occasional attempts at staging political equality during their rare encounters with the staff (Velicu and Kaika, 2017). The project is instead to proceed according to a rigidly defined logical framework that rather than allowing flexibility to design and implementation, expects that the residents will problematize their livelihoods in terms of lacking resilience and embrace the institutional, technological, and market-based adaptation strategies on offer.

8. Conclusion: Main contributions and the search for the political

In the first part of this concluding chapter, I will reflect on the theoretical, empirical, and methodological contributions of this thesis. This will be followed by a discussion on the potential theoretical and practical avenues for re-politicizing the way adaptation to climate change is governed.

8.1. Theoretical and empirical implications of the thesis

This research has contributed to the theoretical development of post-politics and critical adaptation scholarship, in general. As mentioned earlier, while the move away from hazards-based understandings of vulnerability to its more socio-economic conceptions has been a very welcome development, indeed, in practice, this has translated into complementing the construction of sea walls with local associations and income-generating adaptive strategies promoted at the local level. This is because this by-now orthodox critique of adaptation sees social and economic factors as key for shaping people's vulnerability to climate change. However, describing vulnerability in these terms is not enough. Instead, attention should be shifted towards vulnerabilization (Taylor, 2014), or the root causes of vulnerability (Ribot, 2014). In my view, this is done most appropriately through analyzing political inequality and the ways in which it affects local adaptation. The post-political framework adopted here has allowed to unveil this kind of inequality not just between the project and its beneficiaries, but among the beneficiaries themselves, as well.

Indeed, this study has applied post-politics not only in a rural community (itself a relatively rare if not unprecedented methodological choice) but in a developing-country context. Doing so has revealed the wide overlap between post-politics and post-colonial theory, both highly emancipatory and critical approaches with distinctly different theoretical lineages. As mentioned earlier in the thesis, depoliticization takes place predominantly at the level of representations, the long-standing forte of post-colonial theory from which this analysis has drawn generously (Kenis and Lievens, 2014). This common ground is particularly discernible when discussing the exclusion of the subaltern from governance controlled by organizations and donors in distant metropolises. While post-politics has been applied largely in the context of developed countries (but see: Kamat, 2014), this analysis has demonstrated that the framework does not need to be limited to the affluent societies of the Global North where the post-political tradition emerged. Indeed, it has been one of the main arguments here that the post-political condition is in a certain way transplanted to developing countries through

the power of global donors (such as the World Bank and the GEF) and development agents (such as UNDP) to shape how adaptation is governed in the Global South.

This research has also revealed the fertile ground that adaptation governance is for the post-political condition. The three processes that describe it – dramatized representations of the problem and of the people affected by it, the adoption of a techno-managerial approach to problem-solving, and the creation of consensus to solidify the *status quo* – are acutely visible when investigating how adaptation is promoted and implemented by governments and development agents such as UNDP. The discourse of vulnerability itself has created a global class of subaltern people seen as incapable of facing the climate challenge and who are in dire need of help. The solutions to their predicament are sourced from the neoliberal world of markets, institutions, and technology, and sought to be legitimized through consensual governing warranted by the gravity of the global climate situation. The three analytical chapters of this thesis sought to reveal how the post-political condition of adaptation governance is constructed in the case of São Tomé and Príncipe and the community of Liberdade.

Manifestations of post-politics

It has been demonstrated that the post-political condition of adaptation governance in the country has been perpetuated by three distinct yet interrelated processes. First, post-politics is fueled by violent discursive mechanisms that present the climate as an impending threat and rely on agency-depriving representations of São Tomé and Príncipe's rural people as incapable and in need of external help. Through the deployment of imaginative geographies of their vulnerabilities by the development industry, they are relegated to a position of precariousness that calls for external intervention. The discursive analysis of the project documents and the development professionals' views has demonstrated how powerful this urgency-laden discourse is in São Tomé and Príncipe – a country that relies on foreign aid for 90 percent of its spending and finds itself in a chronic condition of underdevelopment (INDC, 2015). In a country like this, it is not difficult for the elites (foreign and domestic alike) to depict local people as lazy, ignorant, and dependent on public services. At the same time, the discursive violence of adaptation of this kind seeks to construct a specific neoliberal subjectivity in rural Santomeans (Agrawal, 2005; Chandler and Reid, 2016; Kamat, 2014; Luke, 2011), according to which model subjects of adaptation are to tackle the climate challenge through self-reliance, entrepreneurialism, and profit-maximizing behavior. The creation of such subjects is exemplified best by the reliance of this and

other adaptation projects on the institution of ‘model farmers’ – creative, competitive, cooperative, entrepreneurial, and eager to learn individuals who have the highest chance of successfully adopting the project’s choice of solutions.

These are, as I have argued, explicitly techno-managerial by nature. The specific solutions proposed by the adaptation project in São Tomé and Príncipe are guided by resilience thinking. Although resilience, transplanted from cultural ecology and hazards science, is a concept completely foreign to the vast majority of Liberdade residents, their perceived predicament is framed precisely in these terms. The conceptualization of the problem in terms of insufficient resilience reflects the primacy of the ontological position favored by technocrats. Thus, the project has as its goal to enhance the resilience of rural livelihoods through the combined use of markets, institutions, and climate-proof technologies. Local communities are to be better integrated into the national and global economy, cooperate through local-level institutions such as farmer associations and food banks, and upon receiving training, adopt climate-resilient agricultural techniques – all this to increase their agricultural yields and thus incomes. Adaptation is thus conceptualized as resilience, and is to be achieved through increased agricultural productivity and, in the case of those with insufficient production potential, diversified livelihoods, with the ultimate goal of increasing local incomes.

Finally, these techno-managerial solutions, rather than imposed on local communities, are sought to be legitimized through local consultations. Project documents speak at length about the high level of inclusion of various stakeholders in the design process, from state agencies, through development NGOs and local authorities, to local communities. As was discussed earlier, Liberdade participated in three such events over the course of the last three years, during which project managers and consultants asked them about their problems, instructed them to form a climate change platform (or association), and assessed their capacity for processing agricultural products into more valuable goods – tasks often carried out through rapid rural appraisal, an approach which does not enjoy a good reputation among the critical scholars of development (Gellner and Hirsch, 2001b; Mosse, 2005, 1994).

Implications of post-politics for Liberdade

Even though the project is represented as participatory, bottom-up, or community-driven (these vague descriptors being used rather interchangeably by the staff), local people have had little to no power in shaping it. Indeed, the residents of Liberdade were merely consulted, through what appeared to be a highly *ad hoc*,

unsystematic, and at times outright disrespectful participation process, about their views and adaptation needs. Crucially, in no way were they considered equal or at last influential partners in the design of the project or the selection of the specific activities. The project design was finalized without their meaningful contribution, and long before two of the three consultation events took place. Thus, project staff found itself in the strange position of justifying the project to the residents themselves by warning them about the impending climate impacts that, if nothing is done, will greatly affect their already tenuous livelihoods.

Those who seek to bring complex and often uneasy social relations to the fore – usually the more outspoken community members who raise key questions on the unequal distribution of resources, power, and capacity within the community and complain about the unresponsiveness of outside interventions towards local needs – are ignored or silenced. The political is in this case evacuated from the public encounter by the politics of adaptation in which UNDP and the state play major roles, occupying the entire space of governance, disempowering the communities, and creating a sense of disillusion with those in power that pervades the rural places of São Tomé and Príncipe. Thus, using the language of post-politics, UNDP and the state are circumscribed to the realm of the police, or the institutionalized modalities of governance that leave no space for antagonistic reactions, relations, or strategies at the local level, and block any meaningful avenues for the emergence of the political and, consequently, re-politicization (Mouffe, 2005; Rancière, 1999).

Meanwhile, adaptation to climate change is, in practice, a process that involves questions of unequal access to political power or natural, financial, and technological resources. It inevitably involves contestation of interests between unequal groups and individuals. The recognition of the highly political nature of adaptation to climate change and vulnerability are nowhere to be found in the way UNDP and the Santomean state govern adaptation. The architects of the adaptation project failed to understand the complexity of the communities in which activities take place, proving it consistently ill-equipped for responding to stratified local contexts. The design or ‘diagnostic’ (itself a highly positivist term) stage of the process did not effectively incorporate any meaningful safeguards for the inclusion of women, the elderly, the landless, or the otherwise marginalized and indeed the most vulnerable. Similarly, it allowed no space for expressing their frustration with the initiative.

This is not without consequence for local residents. Despite its seeming calmness and picturesque environment, Liberdade is far from an idyllic community

where the urgency of climate change will help bring people together to identify, plan, and implement solutions to benefit all. On the contrary, the village is marked with relationships of inequality stemming from political power, gender, space, and access to natural resources. The complex social issues that exist in the spaces of adaptation – relationships of exploitation of land, labor, and productive assets, as well as exclusion from community life – do not receive the attention of the project.

Based on extensive interviews and participant observation, the empirical component of this thesis sought to demonstrate just how complicated the social relations in Liberdade are, and what consequences the community is facing due to the erasure of the intrinsically political nature of community life from adaptation governance. Through a detailed account of the community's participation in the project to-date and of the various, mutually perpetuating inequalities rooted in political power, gender, space, and access to the means of production, I sought to demonstrate that – if unchanged – the implementation of the project will not only fail to address the needs of the most vulnerable residents of Liberdade, but is on track to widening the already existing inequalities. As a result, the ongoing stratification of personal assets and in consequence political power will lead to highly inequitable adaptation outcomes, producing the winners and losers that critical adaptation scholars frequently caution against (Adger, 2003; Adger et al., 2006; Thomas and Twyman, 2005). If there is a “lowest common denominator” among policy-makers in this context, it is that climate change should not exacerbate the existing social and economic inequalities found at the local level (Rayner and Malone, 2001, p. 181).

Entirely agnostic about the complexity of social stratification and the often compounding effects of multiple exclusions, oppressions, and coercions, the initiative seeks to socially re-engineer the community to help it regain the levels of productivity seen in the past. Facilitated by the hegemonic discourse of an unpredictable climate menacing unaware villagers who require a helping hand from global adaptation managers, this approach socially homogenizes the community and simplifies the politically and economically unequitable relations that lead to vulnerability to climate change. As such, techno-managerial solutions to be implemented in Liberdade, while potentially addressing some important local issues such as the lack of irrigation, do not address the risk of these solutions favoring some residents over others, countering the very goal of the project to increase the resilience of the community as a whole. Moreover, the standardized, inherently conservative remedies proposed not only ignore but actually strengthen the foundations of the capitalist-based liberal system in which

they are embedded. More transformational approaches such as material or political redistribution within the agrarian environment (Pelling 2011) are out of question. Rather, the sole goal of techno-managerial solutions is to achieve resilience of the nation's vulnerable agricultural system through cosmetic and decidedly non-invasive measures.

These observations point to one simple conclusion when analyzing the adaptation project in question. As far as the residents of Liberdade are concerned, the intervention is just another development project that, in terms of how it is conceptualized and implemented at the local level, does not differ much from the previous efforts to lift the residents out of poverty. Most importantly, the project conceptualizes adaptation as increasing incomes (in this case through boosting local productivity levels) – arguably the most unsophisticated understanding of human development available to the industry. And while, at the time of writing, it is decidedly too early to establish whether the intervention will deliver its expected results, the experience of similar agricultural development projects in the country does not instil an informed observer with much optimism. The final quote I would like to share here comes from a development professional with well over 15 years of experience in São Tomé and Príncipe, who shared her perspective on this particular issue in the following way:

I can tell you that (...) I've been recently in the field, again. I mean, in rural, far-away communities, and the sensation, Michael, is that *nothing* has changed in 17 years. And that's something *so* sad for someone that is working in development. So sad. (...) Because you've witnessed millions, and millions, and millions of dollars from *all* donors possible that you can... all donors. The donors that are present in this country are trying to help the rural communities and there's no receptivity, there's no change, there's no base...

[Constança, NGO, São Tomé, emphasis in original]

This interviewee's words are troubling, indeed. As explained earlier, the adaptation project is funded by LDCF, which is supposed to pilot adaptation interventions that will be scaled up multifold through the funding made available by the GCF. If the post-political condition of adaptation governance in the country is not addressed (see below), more time, expectations, and money will be invested into similar adaptation interventions with little chance of effectuating the needed change in local communities, and instead fuelling the disillusion of local people with development and exacerbating the political, economic, and social inequalities at the local level.

8.2. Reflections on methodology

This study sought to critically analyze how institutional approaches to adaptation – rooted in resilience thinking and New Institutional Economics – create post-political governance at the local level. While adaptation scholarship has for the most part focused on the global or national levels (Bulkeley et al., 2013; Sovacool et al., 2012b), studying how adaptation unfolds locally is of crucial importance, as this is precisely where climate impacts will be felt most immediately and acutely (Adger, 2001). At the same time, however, it is difficult to fully understand what is happening ‘on the ground’ without incorporating into the analysis the institutional context of adaptation as well as the higher-level processes that influence it. The research design adopted here – a multi-sited, institutional quasi-ethnography – sought to provide this kind of nuanced insight into the world of adaptation governance. It is also the only study so far, to my knowledge, to have merged ethnographic methods with the theoretical framework of post-politics in the context of adaptation governance. By adopting ethnographic methods, including participant observation, informal conversations, and semi-structured interviews, my goal was to provide an empirical saturation of the governance spectrum, with UNDP and the government on the one end, and the local community of Liberdade, on the other. Similarly, I attempted to study their encounter embodied by the participation process, and investigate the effects of this encounter for Liberdade’s residents.

The ethnographic approach used here also served to foreground the voice of those who have been traditionally excluded from, and indeed considered unqualified for, deciding on matters pertaining to their very own adaptations. My conversations with the rural residents of Liberdade, as exemplified through the quotes from the interviews and field notes included earlier, reveal local people’s acute understanding of not just their own vulnerabilities and problems, but also of their political exclusion from governing. It is my view, which I have developed over the course of my research, that they are perfectly capable of participating in adaptation projects as more than mere beneficiaries. Rather than their limited capacity to participate, it is the willingness of development agents to include them that I see as the biggest issue.

It must also be recognized that this study has serious methodological limitations. The analysis presented here is circumscribed to the design and ‘diagnostic’ stage of the adaptation project, while some would argue it is implementation that really matters. Fieldwork did not cover the rollout of project activities in Liberdade, so it is impossible to know exactly who was included in or excluded from them, and who benefitted and

who was left empty-handed. At the same time, however, the planning and institutional culture guiding the way in which decisions are made within the project do provide certain cues as to how implementation is likely to unfold. The project does not only respond very poorly to local needs and expectations – it is also too ambitious.

Increasing the resilience of 30 villages for a total of \$4 million USD would be quite a bargain, indeed. The extent of problems in São Tomé and Príncipe's rural communities, however, makes it highly unlikely for the project to effectuate tangible change in Liberdade and 29 other communities participating in the initiative.

Next to timing, the relatively short duration of the research should also be viewed as a major limitation. As mentioned earlier, this is the main reason for calling this study a quasi-ethnography. Much more time than a total of seven months in three different sites would be needed to gain a comprehensive understanding of the rural context as well as the operations of UNDP at the national and regional level. Moreover, the analysis presented above does not focus on the government of São Tomé and Príncipe in greater detail, and this is not only because UNDP has rather successfully entrenched itself in the driving seat of the project. It must be remembered that I traveled to Ethiopia and São Tomé and Príncipe as a guest of UNDP and not the government, making the availability of state employees and documents alike much more restricted. Moreover, more comprehensive data would have provided a more nuanced understanding of local inequalities, and consequently a stronger basis for theorizing potential avenues for re-politicization.

That said, it should be underlined that this study has provided a comparably high level of empirical detail on adaptive contexts. As many critical scholars have argued, vulnerability is very context-specific (Adger et al., 2004; Mertz et al., 2009). What follows from this is that in-depth analyses of the spaces of adaptation are required if governments and development agencies are serious about designing and carrying out interventions that make sense of local complexities on the one hand, and successfully co-produce successful adaptation measures with those affected or soon-to-be-affected by climate impacts, on the other. Ethnographic methods, while the most resource-intensive, stand out as the most suitable research strategy to provide this kind of nuanced understanding.

In terms of further research, additional investigations are needed into the complexities of local adaptive contexts and the political nature of the adaptive process, itself. The key argument of this particular study – that the post-political adaptation governance is unlikely to result in decreasing local vulnerabilities and, in the worst case

scenario, can even exacerbate them among the most vulnerable – calls for additional critical attention to how the global development industry should conceptualize and act upon adaptation to climate change. In the case of this research, my long-term goal is to return to Liberdade after the conclusion of the project to validate the claims about its potential lack of effectiveness made earlier. Longitudinal studies of adaptation contexts are arguably even rarer than ethnographic ones, but investigating the long-term effects of adaptive challenges as well as adaptation interventions seems a reasonable path to take in the quest to better understand this highly complex and stratifying process.

8.3. Re-politicizing adaptation: Towards a more climate-just world?

Given the discursive and material expressions of the post-political condition of adaptation governance on which this study has concentrated, a final discussion is warranted on the ways in which scholars and practitioners alike could theorize and pursue more equitable and co-productive adaptive outcomes. These are defined as “alternative future socio-environmental possibilities and socio-natural arrangements” by Swyngedouw (2010, p. 228), and as the ability to “produce ourselves as part of a broader field of socio-ecological processes” by Taylor (2014, p. 192). This is, beyond a doubt, a daunting challenge. The dramatized representations of climate change and of the people who are vulnerable to its impacts are so pervasive, and the faith in markets, technologies, and local institutions so deep that any attempt to upset this firmly-rooted, post-political *modus operandi* seems simply futile. And yet, it cannot be denied that we are witnessing the unfolding of a great injustice – where those who have not caused climate change will see their livelihoods and lives threatened by climate impacts, while those responsible being incomparably better prepared for it. At the local level, as in the case of Liberdade, we have seen that climate change is likely to accentuate the existing inequalities, rendering the vulnerable more vulnerable, and the resilient – more resilient.

Scholars of post-politics have differed greatly on how to disrupt the order of the police, and have conceptualized agonism, equality, and freedom as the guiding principles for ensuring that the political does not become permanently disavowed from public encounter (Marchart, 2007; Mouffe, 2005; Nancy, 1993; Rancière, 1999). Here, I would lean towards what Alain Badiou calls the “equalitarian political maxim”, which sees equality as the irreducible, ‘negative’ concept that must guide the struggle against the hegemony of “technologized” politics (Badiou, 1998; Marchart, 2007, p. 114). This is reflected in the reading of Rancière by Dikeç (2005, p. 174), who argues that the political “implies a disruption of the order of the police, and its guiding principle is

equality.” This understanding of democracy and emancipation, thus, implies the absolute political equality and capacity to practice politics of everyone. And if, in this case, adaptation to climate change is to avoid producing stratifying outcomes, guaranteeing political equality becomes the *sine qua non* of its policies and projects. By political equality, I do not mean here the right to vote or to participate in decision-making, such as the consultation meetings that took place in Liberdade. As important as these rights are, they belong to the order of the police, which, as noted earlier, seeks to suture society and make nobody “unaccounted for” (Rancière, 1999). Rather, it is allowing the political subjectivities and alternative visions of the Other – in this case of the ‘vulnerable subaltern’ – to occupy the same kind of space in governing that the dominant, techno-managerial frame accords to global managers. This means searching for means to make the system vulnerable to a renegotiation of the partition of the sensible by those who up until now have been seen as mute, incapable, or dismissible.

Velicu and Kaika (2017), in their analysis of a local opposition movement to a new opencast mine in Rosia Montana in Romania, argue that the traditional idea of environmental justice – a concept of which climate justice is in many ways an extension (Schlosberg and Collins, 2014) – needs to be revisited, as the traditional framework that merges recognition, participation, and redistribution in delivering justice is insufficient for true emancipation and political transformation. As important as these three components may be, alone they are not sufficient – as the experience of the residents of Liberdade has demonstrated. It is not enough to be invited to the table if one’s views are discounted from the outset, and one’s political subjectivity – disavowed. Oppression of this kind – and it is oppression, only silent – ensures that the political moment can never take place, rupturing the dominant order, proving the contingency of the hegemonic foundation of society, and revealing the inevitably incomplete nature of power. Velicu and Kaika argue that the resulting invisibility – in this case the deprivation of local people of agency and capability to deal with climate change, which itself is empowered instead – must be overcome by allowing other political subjectivities to be enacted and performed.

With regards to the practical implications of these observations, what is certain is that egalitarianism and emancipation cannot be sanctioned by any policy or regulation. As the theorists of post-politics notice, the political moment cannot be foreseen, as its unpredictable and ephemeral nature is the only way it can escape the totalizing gaze of the police order. The inclusion of the “unaccounted for” cannot be mandated, and there is, at least in theory, nothing that the project can do to ensure its democratic nature (in

fact, it can only represent itself as such). For example, the inclusion of gender issues into policy documents, or for that matter observing gender parity in local institutions, alone will never amount to political emancipation or empowerment of women. The protesters from Rosia Montana knew this very well when they refused to participate in consultation meetings because, put simply, they did not feel that they were being taken seriously by the government and the investor (Velicu and Kaika, 2017). Many residents of Liberdade share the exact same sentiment towards the adaptation project. Their home is occasionally visited by urban technocrats who consider locals unfit for facing climate impacts and in need technical guidance. The participation of residents in the process is instrumental, and in the end, it does not matter what is said or done during these encounters. Consultations in this case merely serve to rubber-stamp, or create a tenuous consensus for, the solutions that had been long chosen for the communities by people who see them as mere receivers of help rather than equal partners in shaping the political process of adaptation.

These insights carry some practical implications for the adaptation project. Rather than focusing on economic indicators such as income or crop yields, attention should be moved towards creating a space where the political equality of all parties involved can be staged or performed. This is a tremendously difficult task, given the discursive and material obstacles that this thesis has sought to explore. However, procedural justice (ensured by recognition and participation) as well as distributive justice (expressed by a fair distribution of burdens and benefits related to the project) are not enough (Adger et al., 2006). For justice to be delivered, it should be understood as “not some given feature or property in human beings (as if it were an object)” but rather as “the human capacity to imagine and perform political equality” (Velicu and Kaika, 2017, p. 314). Thus, adaptation policy and projects cannot assume the inferiority of the subaltern – of their knowledge, subjectivity, material circumstances, language, and traditions. They must resist reproducing the imaginative geographies of their vulnerability. Ideally, then, adaptation policy and projects would be created *with* local communities as equal partners in the process, rather than *for* them as invisible, passive, and incapable victims of climate change.

How precisely this could be incorporated into adaptation projects is unclear. However, what is certain is that the current, resilience-centered approach to interventions where the design is outsourced to heftily paid consultants with local people’s tokenistic involvement has not delivered, and is highly unlikely to deliver, the expected results. Adaptation should be guided by egalitarian politics rather than

dispassionate, economic calculation of costs and benefits and technological solutions.³⁵ Attention should also be placed on the way in which the international UNFCCC climate financing structure is designed. As discussed in the thesis, its setup often results in a path dependency manifested through exclusively techno-managerial project design, unlikely to be responsive to specific country, let alone community, contexts and needs. The international, neoliberal grip on adaptation funds, including the GCF, should be challenged, and more democratic arrangements for fund allocation and disbursement theorized (see: Barrett, 2014; Jamieson, 2005; Scoville-Simonds, 2016).

Since the current governance of adaptation is dominated by global technocrats across multiple scales, these changes are not very realistic, and should not be expected to come from the hegemonic order of liberal capitalism. The political moment must come from below. The social movement from Rosia Montana was successful in its demands to block the mine because its members openly staged their equality and demonstrated that they, indeed, could speak (Spivak, 1988). They successfully challenged the partition of the sensible. In Liberdade, given the extreme power differentials between local people and the development machine that launched the adaptation project (Kapoor, 2011), this is much more difficult to achieve. There is, however, a ray of hope. During one of the consultation meetings in another community participating in the adaptation project, the residents demonstrated their political equality with the staff by refusing to allow the rollout of activities, which they saw as irresponsible to their own needs (the project wanted to construct animal pens while the community demanded that humans receive proper housing first). Their resistance disrupted the established and until then uncontested order of operations of UNDP and the national government, with both scrambling for mediation and material help of the local district authorities. It is this disruption, in my view, that constituted the most democratic moment of the entire project so far. Therefore, for local people who are confronted with power inequalities – both with regard to projects and to their neighbors – perhaps the Foucauldian ethic of “permanent resistance” could be of use in this context (Macgregor, 2014). This constant questioning stance is seen here as a way to combat the political apathy visible at the community level that makes any disruption of the oppressive police order virtually impossible.

³⁵ It should be stressed here that unlike market based-solutions, I do not perceive technology as a necessarily negative element of adaptation governance. Denying local people access to innovative solutions on a normative basis would constitute only another instance of exclusion. The point is that technology itself is not the problem. Rather, it is how it is used, by whom, and on whose behalf (Swyngedouw – personal communication).

However, the final point that I wish to make is that the various issues with how adaptation is governed are, in the end, not adaptation issues, at all. They are issues of political equality and of democracy. Adaptation to climate change is a mere conductor of uneven power relationships that guide government and governance across time and space, with the post-political condition of the adaptation project in São Tomé and Príncipe as their mere manifestation. What follows is that it would be unrealistic to expect adaptation to climate change to be *the* avenue for re-politicizing the Santomean, let alone global, democracy (which I understand here as a political ideal rather than a system of government). The roots of the malaise that the post-political condition of adaptation is can be traced far beyond the realm of environmental governance. It touches on the very foundations of how our societies are governed, and it is here that ultimate radicalization and emancipation must take place. Therefore, theorizing and practicing more egalitarian adaptation to climate change must entail theorizing and practicing a more egalitarian kind of global, national, and local politics. This is where the real search for the political should begin. An analytical frame any narrower than this risks failing to capture the root causes of people's vulnerabilities to climate impacts and, as the example of the adaptation project in São Tomé and Príncipe demonstrates, only serves to perpetuate the inveterate, post-political *status quo*.

9. References

- Adger, W.N., 2003. Social Capital, Collective Action, and Adaptation to Climate Change. *Economic Geography* 79, 387–404. doi:10.1111/j.1944-8287.2003.tb00220.x
- Adger, W.N., 2001. Scales of governance and environmental justice for adaptation and mitigation of climate change. *Journal of International Development* 13, 921–931. doi:10.1002/jid.833
- Adger, W.N., Agrawala, S., Mirza, M.M.Q., 2007. Assessment of adaptation practices, options, constraints and capacity, in: Parry, M.L., Canziani, O.F., Palitukof, J.P., van der Linden, P.J., Hanson, C.E. (Eds.), *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 717–743.
- Adger, W.N., Brooks, N., Bentham, G., Agnew, M., Eriksen, S., 2004. New indicators of vulnerability and adaptive capacity. Tyndall Centre for Climate Change Research, Norwich.
- Adger, W.N., Brown, K., Tompkins, E.L., 2005. The political economy of cross-scale networks in resource co-management. *Ecology and society* 10, 9.
- Adger, W.N., Dessai, S., Goulden, M., Hulme, M., Lorenzoni, I., Nelson, D.R., Naess, L.O., Wolf, J., Wreford, A., 2009. Are there social limits to adaptation to climate change? *Climatic Change* 93, 335–354. doi:10.1007/s10584-008-9520-z
- Adger, W.N., Huq, S., Brown, K., Conway, D., Hulme, M., 2003. Adaptation to climate change in the developing world. *Progress in Development Studies* 3, 179–195. doi:10.1191/1464993403ps060oa
- Adger, W.N., Paavola, J., Huq, S., Mace, M.J. (Eds.), 2006. *Fairness in adaptation to climate change*. MIT Press, Cambridge, Massachusetts.
- Adhikari, K.P., Goldey, P., 2010. Social Capital and its “Downside”: The Impact on Sustainability of Induced Community-Based Organizations in Nepal. *World Development* 38, 184–194. doi:10.1016/j.worlddev.2009.10.012
- Agboola, A.O., 2015. Neoclassical economics and new institutional economics: An assessment of their methodological implication for property market analysis. *Property Management* 33, 412–429. doi:10.1108/PM-12-2014-0055
- Agrawal, A., 2005. *Environmentality: technologies of government and the making of subjects, New ecologies for the twenty-first century*. Duke University Press, Durham.
- Agrawal, A., Gibson, C.C., 1999. Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation. *World Development* 27, 629–649. doi:10.1016/S0305-750X(98)00161-2
- Agrawal, A., Perrin, N., Chhatre, A., Benson, C.S., Kononen, M., 2012. Climate policy processes, local institutions, and adaptation actions: mechanisms of translation and influence. *Wiley Interdisciplinary Reviews: Climate Change* 3, 565–579. doi:10.1002/wcc.193
- Ahluwalia, D.P.S., 2001. *Politics and post-colonial theory: African inflections*. Routledge, London ; New York.
- Ahmed, S.A., Diffenbaugh, N.S., Hertel, T.W., 2009. Climate volatility deepens poverty vulnerability in developing countries. *Environmental Research Letters* 4, 034004. doi:10.1088/1748-9326/4/3/034004
- Allen, K.M., 2006. Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines. *Disasters* 30, 81–101.

- Andersson, E., Gabriëlsson, S., 2012. "Because of poverty, we had to come together": collective action for improved food security in rural Kenya and Uganda. *International Journal of Agricultural Sustainability* 10, 245–262. doi:10.1080/14735903.2012.666029
- Arnstein, S.R., 1969. A ladder of citizen participation. *Journal of the American Planning Association* 35, 216–224.
- Awasthy, R., 2015. Journey of Doing Quasi-ethnographic Study in Organizations. *Vision: The Journal of Business Perspective* 19, 219–226. doi:10.1177/0972262915593667
- Ayers, J., Dodman, D., 2010. Climate change adaptation and development I: the state of the debate. *Progress in Development Studies* 10, 161–168. doi:10.1177/146499340901000205
- Ayers, J., Forsyth, T., 2009. Community-Based Adaptation to Climate Change. *Environment: Science and Policy for Sustainable Development* 51, 22–31. doi:10.3200/ENV.51.4.22-31
- Badiou, A., 1998. *Abrégé de métapolitique, L'ordre philosophique*. Seuil, Paris.
- Bandiaky, S., 2008. Gender inequality in Malidino biodiversity community-based reserve, Senegal: political parties and the 'village approach'. *Conservation and Society* 6, 62–73.
- Barnett, J., O'Neill, S., 2010. Maladaptation. *Global Environmental Change* 20, 211–213. doi:10.1016/j.gloenvcha.2009.11.004
- Barrett, S., 2014. Subnational Climate Justice? Adaptation Finance Distribution and Climate Vulnerability. *World Development* 58, 130–142. doi:10.1016/j.worlddev.2014.01.014
- Bassett, T.J., Fogelman, C., 2013. Déjà vu or something new? The adaptation concept in the climate change literature. *Geoforum* 48, 42–53. doi:10.1016/j.geoforum.2013.04.010
- Becker, K., 2015. *Sao Tomé & Príncipe*. Bradt Travel Guides, Chalfont St. Peter (Buckinghamshire, UK).
- Berglez, P., Olausson, U., 2014. The Post-political Condition of Climate Change: An Ideology Approach. *Capitalism Nature Socialism* 25, 54–71. doi:10.1080/10455752.2013.845588
- Berkes, F., 2007. Understanding uncertainty and reducing vulnerability: lessons from resilience thinking. *Natural Hazards* 41, 283–295. doi:10.1007/s11069-006-9036-7
- Bernard, T., Spielman, D.J., 2009. Reaching the rural poor through rural producer organizations? A study of agricultural marketing cooperatives in Ethiopia. *Food Policy* 34, 60–69. doi:10.1016/j.foodpol.2008.08.001
- Bettini, G., 2013. Climate Barbarians at the Gate? A critique of apocalyptic narratives on "climate refugees." *Geoforum* 45, 63–72. doi:10.1016/j.geoforum.2012.09.009
- Billo, E., Mountz, A., 2016. For institutional ethnography: Geographical approaches to institutions and the everyday. *Progress in Human Geography* 40, 199–220. doi:10.1177/0309132515572269
- Bisung, E., Elliott, S.J., Schuster-Wallace, C.J., Karanja, D.M., Bernard, A., 2014. Social capital, collective action and access to water in rural Kenya. *Social Science & Medicine* 119, 147–154. doi:10.1016/j.socscimed.2014.07.060
- Blühdorn, I., 2013. The governance of unsustainability: ecology and democracy after the post-democratic turn. *Environmental Politics* 22, 16–36. doi:10.1080/09644016.2013.755005
- Boezeman, D., Vink, M., Leroy, P., Halffman, W., 2014. Participation under a spell of instrumentalization? Reflections on action research in an entrenched climate

- adaptation policy process. *Critical Policy Studies* 8, 407–426.
doi:10.1080/19460171.2014.950304
- Bowen, A., Cochrane, S., Fankhauser, S., 2012. Climate change, adaptation and economic growth. *Climatic Change* 113, 95–106. doi:10.1007/s10584-011-0346-8
- Boyatzis, R.E., 1998. *Transforming qualitative information: thematic analysis and code development*. Sage Publications, Thousand Oaks, CA.
- Boyd, E., Ensor, J., Broto, V.C., Juhola, S., 2014. Environmentalities of urban climate governance in Maputo, Mozambique. *Global Environmental Change* 26, 140–151. doi:10.1016/j.gloenvcha.2014.03.012
- Brand, F., Jax, K., 2007. Focusing the meaning (s) of resilience: resilience as a descriptive concept and a boundary object. *Ecology and society* 12.
- Brosius, J.P., Tsing, A.L., Zerner, C., 1998. Representing communities: Histories and politics of community-based natural resource management. *Society & Natural Resources* 11, 157–168. doi:10.1080/08941929809381069
- Brown, K., 2016. *Resilience, development and global change*. Routledge, Taylor & Francis Group, London ; New York.
- Brown, K., 2011. Sustainable adaptation: An oxymoron? *Climate and Development* 3, 21–31. doi:10.3763/cdev.2010.0062
- Brown, K., Lapuyade, S., 2001. A livelihood from the forest: gendered visions of social, economic and environmental change in Southern Cameroon. *Journal of International Development* 13, 1131–1149. doi:10.1002/jid.802
- Brown, W., 2003. Neo-liberalism and the End of Liberal Democracy. *Theory & Event* 7. doi:10.1353/tae.2003.0020
- Bryant, G., 2016. The Politics of Carbon Market Design: Rethinking the Techno-politics and Post-politics of Climate Change: The Politics of Carbon Market Design. *Antipode* 48, 877–898. doi:10.1111/anti.12237
- Bryant, R.L., 1997. *Third World political ecology*. Routledge, London and New York.
- Bulkeley, H., Carmin, J., Castán Broto, V., Edwards, G.A.S., Fuller, S., 2013. Climate justice and global cities: Mapping the emerging discourses. *Global Environmental Change* 23, 914–925. doi:10.1016/j.gloenvcha.2013.05.010
- Burton, P., Mustelin, J., 2013. Planning for Climate Change: Is Greater Public Participation the Key to Success? *Urban Policy and Research* 31, 399–415. doi:10.1080/08111146.2013.778196
- CADR, 2015. *Reforço das capacidades das comunidades rurais ao efeito das mudanças climáticas em S. Tomé e Príncipe nos distritos de Mé-Zóchi, Cantagalo, Ccaué, Lembá, Lobata e na Região Autónoma do Príncipe (Preliminary report)*. Centro de Apoio ao Desenvolvimento Rural, São Tomé.
- Cameron, J., 2000. Development economics, the New Institutional Economics and NGOs. *Third World Quarterly* 21, 627–635. doi:10.1080/713701070
- Carroll, A., 2016. *State Sponsored Homophobia: A world survey of sexual orientation laws: criminalisation, protection and recognition*. International Lesbian, Gay, Bisexual, Trans and Intersex Association, Geneva.
- Castree, N., 2005. *Nature, Key ideas in geography*. Routledge, London ; New York.
- CATAP, 2016. *Relatório Preliminar do Diagnóstico de Levantamento das Potencialidades nas 25 Comunidades dos Distritos de Caué, Cantagalgo, Mé Zochi, Lobata e Lembá*. Ministry of Agriculture and Rural Development, São Tomé.
- Catney, P., Doyle, T., 2011. The welfare of now and the green (post) politics of the future. *Critical Social Policy* 31, 174–193. doi:10.1177/0261018310395921

- Celata, F., Sanna, V.S., 2012. The post-political ecology of protected areas: nature, social justice and political conflicts in the Galápagos Islands. *Local Environment* 17, 977–990. doi:10.1080/13549839.2012.688731
- Chandler, D., Reid, J., 2016. *The neoliberal subject: resilience, adaptation and vulnerability*. Rowman & Littlefield International, London ; New York.
- Chatterton, P., Featherstone, D., Routledge, P., 2013. *Articulating Climate Justice in Copenhagen: Antagonism, the Commons, and Solidarity*. *Antipode* 45, 602–620. doi:10.1111/j.1467-8330.2012.01025.x
- Chaturvedi, S., Doyle, T., 2015. *Climate terror: a critical geopolitics of climate change, New security challenges series*. Palgrave Macmillan, Basingstoke, Hampshire.
- Chen, H., Wang, J., Huang, J., 2014. Policy support, social capital, and farmers' adaptation to drought in China. *Global Environmental Change* 24, 193–202. doi:10.1016/j.gloenvcha.2013.11.010
- Chishakwe, N., Murray, L., Chambwera, M., 2012. *Building climate change adaptation on community experiences: lessons from community-based natural resource management in southern Africa*. International Institute for Environment and Development, London.
- Chiveralls, K., 2012. The weakest link?: Social capital in Australian regional development, in: *Assessing Social Capital: Concept, Policy and Practice*. Cambridge Scholars Publishing in association with GSE Research, pp. 129–145.
- CIAT, 2016. *Liberdade - doenças das plantas, Relatorios por Distrito*. Centro de Investigação Agronómica e Tecnológica, São Tomé.
- Climate Funds Update, n.d. *Least Developed Countries Fund - Climate Funds Update [WWW Document]*. URL <http://www.climatefundsupdate.org/listing/least-developed-countries-fund#TOC-Fund-Governance> (accessed 9.8.17).
- Cloke, P.J., Cook, I., Crang, P., Goodwin, M., Painter, J., Philo, C., 2004. *Practising human geography*. SAGE, London ; Thousand Oaks, Calif.
- Coase, R.H., 1960. The Problem of Social Cost. *The Journal of Law and Economics* 3, 1–44. doi:10.1086/466560
- Cohen, A., 1985. *The symbolic construction of community*. Ellis Horwood Ltd. and Tavistock Publications, London.
- Cohen, S., 1985. *Visions of social control: crime, punishment, and classification*. Polity Press : Blackwell, Cambridge [Cambridgeshire] : Oxford, UK ; New York, NY, USA.
- Coleman, S., Hellermann, P. von (Eds.), 2013. *Multi-sited ethnography: problems and possibilities in the translocation of research methods*, First issued in paperback 2013. ed. Routledge, New York London.
- Comaroff, Jean, Comaroff, John, 2003. Ethnography on an awkward scale: Postcolonial anthropology and the violence of abstraction. *Ethnography* 4, 147–179.
- Cooke, B., Kothari, U. (Eds.), 2001. *Participation: the new tyranny?* Zed Books, London ; New York.
- Crang, M., Cook, I., 2007. *Doing ethnographies*. SAGE, Los Angeles.
- Cundill, G., Fabricius, C., 2010. Monitoring the governance dimension of natural resource co-management. *Ecology and Society* 15, 15.
- Curtin, P.D., 1999. *The rise and fall of the plantation complex: essays in Atlantic history*, 2. ed., repr. ed, *Studies in comparative world history*. Cambridge University Press, Cambridge.
- de Goede, M., Randalls, S., 2009. Precaution, Preemption: Arts and Technologies of the Actionable Future. *Environment and Planning D: Society and Space* 27, 859–878. doi:10.1068/d2608
- Delanty, G., 2010. *Community*, 2nd edition. ed, *Key ideas*. Routledge, London and New York.

- DeWalt, K.M., DeWalt, B.R., 2011. Participant observation: a guide for fieldworkers, 2nd ed. ed. Rowman & Littlefield, Md, Lanham, Md.
- Dexter, L.A., 2006. Elite and specialized interviewing, ECPR classics. ECPR Press, Colchester.
- Dikeç, M., 2005. Space, Politics, and the Political. *Environment and Planning D: Society and Space* 23, 171–188. doi:10.1068/d364t
- Dixon, J., 2011. Diverse food economies, multivariant capitalism, and the community dynamic shaping contemporary food systems. *Community Development Journal* 46, i20–i35. doi:10.1093/cdj/bsq046
- Dodman, D., Mitlin, D., 2013. Challenges for Community-Based Adaptation: Discovering the Potential for Transformation. *Journal of International Development* 25, 640–659. doi:10.1002/jid.1772
- Dryzek, J.S., 2013. *The politics of the earth: environmental discourses*, Third edition. ed. Oxford University Press, Oxford.
- Ebi, K.L., Semenza, J.C., 2008. Community-Based Adaptation to the Health Impacts of Climate Change. *American Journal of Preventive Medicine* 35, 501–507. doi:10.1016/j.amepre.2008.08.018
- Edvardsson Björnberg, K., Hansson, S.O., 2013. Gendering local climate adaptation. *Local Environment* 18, 217–232. doi:10.1080/13549839.2012.729571
- Eriksen, S.H., Nightingale, A.J., Eakin, H., 2015. Reframing adaptation: The political nature of climate change adaptation. *Global Environmental Change* 35, 523–533. doi:10.1016/j.gloenvcha.2015.09.014
- Escobar, A., 2000. Beyond the search for a paradigm? Post-development and beyond. *Development* 43, 11–14.
- Escobar, A., 1995. *Encountering development: the making and unmaking of the Third World*, Princeton studies in culture/power/history. Princeton University Press, Princeton, N.J.
- Esham, M., Garforth, C., 2013. Agricultural adaptation to climate change: insights from a farming community in Sri Lanka. *Mitigation and Adaptation Strategies for Global Change* 18, 535–549. doi:10.1007/s11027-012-9374-6
- European Commission, 2016. Resilience - European Civil Protection and Humanitarian Aid Operations - European Commission [WWW Document]. European Civil Protection and Humanitarian Aid Operations. URL https://ec.europa.eu/echo/what/humanitarian-aid/resilience_en (accessed 9.6.17).
- Evans, J., 2012. *Environmental governance*, 1st ed. ed, Routledge introductions to environment. Routledge, Milton Park Abingdon, Oxon ; New York.
- Evans, S., 2009. *Community and ageing: Maintaining quality of life in housing with care settings*. Policy Press of the University of Bristol, Bristol.
- Eyzaguirre, P.B., 1989. The Independence of São Tomé and Príncipe and Agrarian Reform. *The Journal of Modern African Studies* 27, 671. doi:10.1017/S0022278X00020498
- Fankhauser, S., Schmidt-Traub, G., 2011. From adaptation to climate-resilient development: The costs of climate-proofing the Millennium Development Goals in Africa. *Climate and Development* 3, 94–113. doi:10.1080/17565529.2011.582267
- Faulkner, L., Ayers, J., Huq, S., 2015. Meaningful Measurement for Community-Based Adaptation: Meaningful Measurement for Community-Based Adaptation. *New Directions for Evaluation* 2015, 89–104. doi:10.1002/ev.20133
- Felli, R., 2013. Managing Climate Insecurity by Ensuring Continuous Capital Accumulation: “Climate Refugees” and “Climate Migrants.” *New Political Economy* 18, 337–363. doi:10.1080/13563467.2012.687716

- Ferguson, J., 1994. *The anti-politics machine: “development,” depoliticization, and bureaucratic power in Lesotho*. University of Minnesota Press, Minneapolis.
- Fetterman, D.M., 1989. *Ethnography: step by step*, Applied social research methods series. Sage Publications, Newbury Park, Calif.
- Figueiredo, P., Perkins, P.E., 2013. Women and water management in times of climate change: participatory and inclusive processes. *Journal of Cleaner Production* 60, 188–194. doi:10.1016/j.jclepro.2012.02.025
- Fine, B., 2003. Social Capital: The World Bank’s Fungible Friend. *Journal of Agrarian Change* 3, 586–603. doi:10.1111/1471-0366.00068
- Fine, B., Lapavistas, C., 2004. Social capital and capitalist economies. *South Eastern Europe Journal of Economics* 1, 17–34.
- First Communication, 2004. *Première Communication Nationale (First National Communication to the UNFCCC Secretariat)*, National Communications. Ministry of the Environment and Natural Resources, São Tomé.
- Ford, J.D., Berrang-Ford, L., Bunce, A., McKay, C., Irwin, M., Pearce, T., 2015. The status of climate change adaptation in Africa and Asia. *Regional Environmental Change* 15, 801–814. doi:10.1007/s10113-014-0648-2
- Forsythe, D.E., 1999. “It’s just a matter of common sense”: Ethnography as invisible work. *Computer Supported Cooperative Work (CSCW)* 8, 127–145.
- Fortier, F., 2010. Taking a climate chance: A procedural critique of Vietnam’s climate change strategy: Taking a climate chance. *Asia Pacific Viewpoint* 51, 229–247. doi:10.1111/j.1467-8373.2010.01428.x
- Foucault, M., 1980. *Power/knowledge: selected interviews and other writings, 1972-1977*, 1st American ed. ed. Pantheon Books, New York.
- Foucault, M., Senellart, M., 2008. *The birth of biopolitics: lectures at the Collège de France, 1978-79*. Palgrave Macmillan, Basingstoke [England] ; New York.
- GCF, n.d. *About the Fund [WWW Document]*. Green Climate Fund. URL <http://www.greenclimate.fund/who-we-are/about-the-fund> (accessed 9.5.17).
- GEF, 2017. *Projects [WWW Document]*. Global Environment Facility. URL <https://www.thegef.org/projects> (accessed 6.21.17).
- GEF, 2016. *Funding [WWW Document]*. Global Environment Facility. URL <https://www.thegef.org/about/funding> (accessed 9.8.17).
- GEF, 2015. *Guidelines for the Implementation of the Public Involvement Policy*.
- GEF, 2011. *Accessing Resources under the Least Developed Countries Fund*.
- Gellner, D.N., Hirsch, E., 2001a. Introduction: Ethnography of Organizations and Organizations of Ethnography, in: Gellner, D.N., Hirsch, E. (Eds.), *Inside Organizations: Anthropologists at Work*. Berg, Oxford, pp. 1–15.
- Gellner, D.N., Hirsch, E., 2001b. *Inside organizations: anthropologists at work*. Berg, Oxford.
- Gentle, P., Maraseni, T.N., 2012. Climate change, poverty and livelihoods: adaptation practices by rural mountain communities in Nepal. *Environmental Science & Policy* 21, 24–34. doi:10.1016/j.envsci.2012.03.007
- Giardino, A., de Keizer, I.O., Schellekens, J., 2011. *São Tomé and Príncipe: Adaptation to Climate Change*.
- Gillard, R., 2016. *Questioning the Diffusion of Resilience Discourses in Pursuit of Transformational Change*. *Global Environmental Politics*.
- Gillard, R., Gouldson, A., Paavola, J., Van Alstine, J., 2016. Transformational responses to climate change: beyond a systems perspective of social change in mitigation and adaptation: Transformational responses to climate change. *Wiley Interdisciplinary Reviews: Climate Change* 7, 251–265. doi:10.1002/wcc.384
- Gläser, J., 2001. “Producing Communities” as a Theoretical Challenge. *Proceedings of The Australian Sociological Association* 1–11.

- Glassman, J., 2006. Primitive accumulation, accumulation by dispossession, accumulation by “extra-economic” means. *Progress in Human Geography* 30, 608–625. doi:10.1177/0309132506070172
- Goeminne, G., 2012. Lost in translation: climate denial and the return of the political. *Global Environmental Politics* 12, 1–8.
- Grasso, M., 2010. *Justice in Funding Adaptation under the International Climate Change Regime*. Springer Netherlands, Dordrecht.
- Guest, G., MacQueen, K.M., Namey, E.E., 2012. *Applied thematic analysis*. Sage Publications, Los Angeles.
- Hammersley, M., Atkinson, P., 2007. *Ethnography: principles in practice*, 3rd ed. ed. Routledge, London ; New York.
- Haraway, D., 1988. Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies* 14, 575. doi:10.2307/3178066
- Harris, P.G., Symons, J., 2010. Justice in adaptation to climate change: cosmopolitan implications for international institutions. *Environmental Politics* 19, 617–636. doi:10.1080/09644016.2010.489716
- Harvey, D., 2003. *The new imperialism*. Oxford University Press, Oxford; New York.
- Harvey, D., 1993. Class Relations, Social Justice and the Politics of Difference, in: Keith, M., Pile, S. (Eds.), *Place and the Politics of Identity*. Routledge, London ; New York, pp. 41–65.
- Head, L., 2010. Cultural ecology: adaptation - retrofitting a concept? *Progress in Human Geography* 34, 234–242. doi:10.1177/0309132509338978
- Hickey, S., Mohan, G. (Eds.), 2004. *Participation: from tyranny to transformation? Exploring new approaches to participation in development*. Zed Books, London : New York.
- Hilde, T.C., 2012. Uncertainty and the epistemic dimension of democratic deliberation in climate change adaptation. *Democratization* 19, 889–911. doi:10.1080/13510347.2012.709687
- Hine, C., 2001. Ethnography in the Laboratory, in: Gellner, D.N., Hirsch, E. (Eds.), *Inside Organizations: Anthropologists at Work*. Berg, Oxford, pp. 61–76.
- Holling, C.S., 1973. Resilience and stability of ecological systems. *Annual review of ecology and systematics* 4, 1–23.
- Hughes, A., Seymour, S., Morris, 2000. Introduction, in: Hughes, A., Seymour, S., Morris, C. (Eds.), *Ethnography and Rural Research*. Countryside Community Press in association with the Rural Geography Study Group, of the RGS-IBG, Cheltenham, pp. 1–27.
- Hughes, S., 2013. Justice in Urban Climate Change Adaptation: Criteria and Application to Delhi. *Ecology and Society* 18. doi:10.5751/ES-05929-180448
- Humphreys, M., Masters, W.A., Sandbu, M.E., 2006. The Role of Leaders in Democratic Deliberations: Results from a Field Experiment in São Tomé and Príncipe. *World Politics* 58, 583–622. doi:10.1353/wp.2007.0008
- Huq, S., Reid, H., Murray, L.A., 2006. Climate change and development links. *IIED*.
- Hurlbert, M., 2015. Learning, participation, and adaptation: exploring agri-environmental programmes. *Journal of Environmental Planning and Management* 58, 113–134. doi:10.1080/09640568.2013.847823
- ICCO, 2013. *Growing Cocoa [WWW Document]*. International Cocoa Organization. URL <https://www.icco.org/about-cocoa/growing-cocoa.html> (accessed 7.3.17).
- IMF, 2014. *Second National Poverty Reduction Strategy II (2012-2016)*.
- INDC, 2015. *Sao Tome and Principe: Intended Nationally Determined Contribution*. Government of Sao Tome and Principe, GEF and UNEP.
- INE, 2013. *Evolução da População São-Tomense por Localidades, 2001/2007-08*.

- IPCC, n.d. AR4 WGI Annexes: Glossary A-D [WWW Document]. URL https://www.ipcc.ch/publications_and_data/ar4/wg2/en/annexessglossary-a-d.html (accessed 8.27.17).
- Ishihara, H., Pascual, U., 2009. Social capital in community level environmental governance: A critique. *Ecological Economics* 68, 1549–1562. doi:10.1016/j.ecolecon.2008.11.003
- Jamieson, D., 2005. Adaptation, mitigation, and justice, in: *Advances in the Economics of Environmental Resources*. Emerald (MCB UP), Bingley, pp. 217–248.
- Janssen, M., 2007. An update on the scholarly networks on resilience, vulnerability, and adaptation within the human dimensions of global environmental change. *Ecology and Society* 12.
- Jasanoff, S., 2010. A New Climate for Society. *Theory, Culture & Society* 27, 233–253. doi:10.1177/0263276409361497
- Jennings, T.L., 2011. Transcending the Adaptation/Mitigation Climate Change Science Policy Debate: Unmasking Assumptions about Adaptation and Resilience. *Weather, Climate, and Society* 3, 238–248. doi:10.1175/WCAS-D-11-00056.1
- Jessop, B., 2002. *The future of the capitalist state*. Polity ; Distributed in the USA by Blackwell Pub, Cambridge, UK : Malden, MA.
- Jones, J.P.I., Nast, H.J., Roberts, S.M., 1997. Conclusion: Crossing Thresholds, in: Jones, J.P.I., Nast, H.J., Roberts, S.M. (Eds.), *Thresholds in Feminist Geography: Difference, Methodology, Representation*. Rowman & Littlefield, Lanham, Md., pp. 393–406.
- Jones, N., Clark, J., Tripidaki, G., 2012. Social risk assessment and social capital: A significant parameter for the formation of climate change policies. *The Social Science Journal* 49, 33–41. doi:10.1016/j.soscij.2011.06.011
- Jusrut, P., 2015. *The Process of Institutional Choice and Recognition for Decentralized Forest Management in Charcoal-Producing Zones of Tambacounda, Senegal*, RFGI working paper. CODESRIA, Dakar.
- Kamat, S., 2014. The New Development Architecture and the Post-Political in the Global South., in: Wilson, J., Swyngedouw, E. (Eds.), *The Post-Political and Its Discontents*. Edinburgh University Press, Edinburgh, pp. 67–86.
- Kapoor, D., 2011. *Critical perspectives on neoliberal globalization, development and education in Africa and Asia*. Sense Publishers, Rotterdam; Boston.
- Kapoor, I., 2008. *The postcolonial politics of development, Postcolonial politics*. Routledge, London ; New York.
- Kenis, A., Lievens, M., 2014. Searching for “the political” in environmental politics. *Environmental Politics* 23, 531–548. doi:10.1080/09644016.2013.870067
- Kenis, A., Mathijs, E., 2014. Climate change and post-politics: Repoliticizing the present by imagining the future? *Geoforum* 52, 148–156. doi:10.1016/j.geoforum.2014.01.009
- Klimaforum09, 2009. *System Change—Not Climate Change: A People’s Declaration from Klimaforum09*.
- Kothari, U., 2001. Power, Knowledge and Social Control in Participatory Development, in: Cooke, B., Kothari, U. (Eds.), *Participation: The New Tyranny?* Zed Books, London ; New York, pp. 139–152.
- Kythreotis, A.P., 2012. Progress in global climate change politics? Reasserting national state territoriality in a “post-political” world. *Progress in Human Geography* 36, 457–474. doi:10.1177/0309132511427961
- Lacoue-Labarthe, P., Nancy, J.-L., 1997. *Retreating the political*, Warwick studies in European philosophy. Routledge, London ; New York.

- Lata, S., Nunn, P., 2012. Misperceptions of climate-change risk as barriers to climate-change adaptation: a case study from the Rewa Delta, Fiji. *Climatic Change* 110, 169–186. doi:10.1007/s10584-011-0062-4
- Latour, B., 2002. *Aramis, or the love of technology*, 4. printing. ed. Harvard Univ. Press, Cambridge, Mass.
- Leal Filho, W. (Ed.), 2011. *Experiences of Climate Change Adaptation in Africa, Climate Change Management*. Springer, Berlin, Heidelberg.
- Lefebvre, H., 1991. *The production of space*. Blackwell, Oxford, OX, UK ; Cambridge, Mass., USA.
- Lester, A., 2002. Constructing colonial discourse, in: Blunt, A., McEwan, C. (Eds.), *Postcolonial Geographies, Writing Past Colonialism*. Continuum, London ; New York, NY, pp. 29–45.
- Li, M., Le Blanc, D., 2013. *Financing for Sustainable Development in Small Island Developing States (SIDS)*.
- Loo, C., 2014. The Role of Community Participation in Climate Change Assessment and Research. *Journal of Agricultural and Environmental Ethics* 27, 65–85. doi:10.1007/s10806-013-9452-0
- López-Gunn, E., 2012. Groundwater governance and social capital. *Geoforum* 43, 1140–1151. doi:10.1016/j.geoforum.2012.06.013
- Luke, F., 1999. Eco-Managerialism: Environmental Studies as a Power/Knowledge Formation., in: *Living with Nature: Environmental Politics as Cultural Discourse*. Oxford University Press.
- Luke, T., 2011. Environmentality. *The Oxford Handbook of Climate Change and Society* 96–112.
- Macgregor, S., 2014. Only Resist: Feminist Ecological Citizenship and the Post-politics of Climate Change. *Hypatia* 29, 617–633.
- Magnan, A.K., Schipper, E.L.F., Burkett, M., Bharwani, S., Burton, I., Eriksen, S., Gemenne, F., Schaar, J., Ziervogel, G., 2016. Addressing the risk of maladaptation to climate change: Addressing the risk of maladaptation to climate change. *Wiley Interdisciplinary Reviews: Climate Change* 7, 646–665. doi:10.1002/wcc.409
- Magrath, J., 2010. The injustice of climate change: voices from Africa. *Local Environment* 15, 891–901. doi:10.1080/13549839.2010.511642
- Manuel-Navarrete, D., 2010. Power, realism, and the ideal of human emancipation in a climate of change. *Wiley Interdisciplinary Reviews: Climate Change* 1, 781–785. doi:10.1002/wcc.87
- Marchart, O., 2007. *Post-foundational political thought political difference in Nancy, Lefort, Badiou and Laclau*. Edinburgh University Press, Edinburgh.
- Marcus, G.E., 1995. Ethnography in/of the world system: The emergence of multi-sited ethnography. *Annual review of anthropology* 24, 95–117.
- Marino, E., Ribot, J., 2012. Special Issue Introduction: Adding insult to injury: Climate change and the inequities of climate intervention. *Global Environmental Change* 22, 323–328. doi:10.1016/j.gloenvcha.2012.03.001
- Mason, K., Whitehead, M., 2012. Transition Urbanism and the Contested Politics of Ethical Place Making. *Antipode* 44, 493–516. doi:10.1111/j.1467-8330.2010.00868.x
- McCarthy, J.F., 2014. Using community led development approaches to address vulnerability after disaster: Caught in a sad romance. *Global Environmental Change* 27, 144–155. doi:10.1016/j.gloenvcha.2014.05.004
- McNamara, K.E., 2013. Taking stock of community-based climate-change adaptation projects in the Pacific: Climate change adaptation in the Pacific. *Asia Pacific Viewpoint* 54, 398–405. doi:10.1111/apv.12033

- Ménard, C., Shirley, M.M., 2008. Introduction, in: Ménard, C., Shirley, M.M. (Eds.), *Handbook of New Institutional Economics*. Springer, Berlin, pp. 1–18.
- Mendelsohn, R., 2006. The Role of Markets and Governments in Helping Society Adapt to a Changing Climate. *Climatic Change* 78, 203–215. doi:10.1007/s10584-006-9088-4
- Menzel, S., Buchecker, M., 2013. Does Participatory Planning Foster the Transformation Toward More Adaptive Social-Ecological Systems? *Ecology and Society* 18, 13.
- Mertz, O., Halsnæs, K., Olesen, J.E., Rasmussen, K., 2009. Adaptation to Climate Change in Developing Countries. *Environmental Management* 43, 743–752. doi:10.1007/s00267-008-9259-3
- Mikulewicz, M., 2017. Politicizing vulnerability and adaptation: on the need to democratize local responses to climate impacts in developing countries. *Climate and Development* 1–17. doi:10.1080/17565529.2017.1304887
- Mikulewicz, M., in press. Beyond Resilience: Adaptation to Climate Change as Equal Access to Power and Resources, in: Leal Filho, W., Mugabe, P., Musiyiwa, K. (Eds.), *Climate Change and Droughts Resilience in Africa*, *Climate Change Management*. Springer, pp. 1–25.
- Moore, D., 2004. The second age of the Third World: from primitive accumulation to global public goods? *Third World Quarterly* 25, 87–109. doi:10.1080/0143659042000185354
- Mosberg, M., Eriksen, S.H., 2015. Responding to climate variability and change in dryland Kenya: The role of illicit coping strategies in the politics of adaptation. *Global Environmental Change* 35, 545–557. doi:10.1016/j.gloenvcha.2015.09.006
- Mosse, D., 2006. Collective action, common property, and social capital in South India: An anthropological commentary. *Economic Development and Cultural Change* 54, 695–724.
- Mosse, D., 2005. *Cultivating development: an ethnography of aid policy and practice, Anthropology, culture, and society*. Pluto Press, London ; Ann Arbor, MI.
- Mosse, D., 2001a. Social Research in Rural Development Projects, in: Gellner, D.N., Hirsch, E. (Eds.), *Inside Organizations: Anthropologists at Work*. Berg, Oxford, pp. 157–181.
- Mosse, D., 2001b. ‘People’s Knowledge’, Participation and Patronage: Operations and Representations in Rural Development, in: Cooke, B., Kothari, U. (Eds.), *Participation: The New Tyranny?* Zed Books, London ; New York, pp. 16–35.
- Mosse, D., 1994. Authority, Gender and Knowledge: Theoretical Reflections on the Practice of Participatory Rural Appraisal. *Development and Change* 25, 497–526. doi:10.1111/j.1467-7660.1994.tb00524.x
- Mouffe, C., 2005. *On the Political*. Routledge, London and New York.
- Munaretto, S., Siciliano, G., Turvani, M.E., 2014. Integrating adaptive governance and participatory multicriteria methods: a framework for climate adaptation governance. *Ecology and Society* 19. doi:10.5751/ES-06381-190274
- Munck, R., O’Hearn, D. (Eds.), 2001. *Critical development theory: contributions to a new paradigm*, 2. impr. ed. Zed, London.
- Murtagh, L., 2007. Implementing a critically quasi-ethnographic approach. *The Qualitative Report* 12, 193–215.
- Nader, L., 1972. Up the anthropologist: perspectives gained from studying up, in: Hymes, D.H. (Ed.), *Reinventing Anthropology*, Pantheon Antitextbooks. Pantheon Books, New York, pp. 284–311.
- Nancy, J.-L., 1993. *The experience of freedom*, Meridian. Stanford University Press, Stanford, Calif.

- NAPA, 2006. National Adaptation Programmes of Action on Climate Change. Government of Sao Tome and Principe, World Bank and UNDP.
- Neeliah, H., 2009. Applying New Institutional Economics to study climate change adaptation: A fertile research agenda. *Journal of Development and Agricultural Economics* 1.
- Neumann, R.P., 2005. Making political ecology, Human geography in the making. Hodder Arnold and Oxford University Press, London : New York.
- Newell, P., 2015. Dialogue of the Deaf? The CDM's legitimization crisis, in: Stephan, B., Lane, R. (Eds.), *The Politics of Carbon Markets*, Routledge Studies in Environmental Policy. Routledge, Taylor & Francis, London ; New York, pp. 212–236.
- Niang, I., Ruppel, O., Abdrabo, M., Essel, A., Lennard, C., Padgham, J., Urquhart, P., 2014. Africa, in: Barros, V.R., Field, C.B., Dokken, D.J., Mastrandrea, M.D., Mach, K.J., Bilir, T.E., Chatterjee, M., Ebi, K.L., Estrada., Y.O., Genova, R.C., Girma, B., Kissel, E.S., Levy, A.N., MacCracken, S., Mastrandrea, P.R., White, L.L. (Eds.), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1199–1265.
- Nightingale, A., 2015. A socionature approach to adaptation: Political transition, intersectionality, and climate change programmes in Nepal, in: Inderberg, T.H., Eriksen, S.H., O'Brien, K.L., Sygna, L. (Eds.), *Climate Change Adaptation and Development: Transforming Paradigms and Practices*. Routledge, Taylor & Francis Group, Abingdon, Oxon ; New York, NY, pp. 219–234.
- Oberlack, C., Neumärker, B., 2011. Economics, institutions and adaptation to climate change. *The Constitutional Economics Network Working Papers*.
- O'Brien, K., 2012. Global environmental change II: From adaptation to deliberate transformation. *Progress in Human Geography* 36, 667–676.
doi:10.1177/0309132511425767
- O'Brien, K., St. Clair, A.L., Kristoffersen, B. (Eds.), 2010a. *Climate Change, Ethics and Human Security*. Cambridge University Press, Cambridge.
doi:10.1017/CBO9780511762475.003
- O'Brien, K., St. Clair, A.L., Kristoffersen, B., 2010b. The framing of climate change: why it matters, in: O'Brien, K., St. Clair, Asuncion Lera, Kristoffersen, B. (Eds.), *Climate Change, Ethics and Human Security*. Cambridge University Press, Cambridge, pp. 3–22. doi:10.1017/CBO9780511762475.003
- OCHA, 2014. List of NGO's.
- O'Connell, D., Walker, B., Abel, N., Cowie, A., Durón, G., 2015. An introduction to the Resilience, Adaptation Pathways and Transformation Assessment (RAPTA) Framework. Scientific and Technical Advisory Panel of the Global Environment Facility.
- OECD, 2012. Integrating climate change adaptation into development co-operation policy guidance. OECD, Paris.
- Olowa, O.W., Olowa, O.A., 2011. Explaining the links between capacity and action in response to global climate change: A local-level climate response shift. *African Journal of Agricultural Research* 6, 3636–3645.
- Oosterlynck, S., Swyngedouw, E., 2010. Noise reduction: the postpolitical quandary of night flights at Brussels airport. *Environment and Planning A* 42, 1577–1594.
doi:10.1068/a42269
- Orlove, B., 2009. The past, the present and some possible futures of adaptation, in: Adger, W.N., Lorenzoni, I., O'Brien, K.L. (Eds.), *Adapting to Climate Change*

- Thresholds, Values, Governance. Cambridge University Press, Cambridge and New York, pp. 131–163.
- Ostrom, E., 2008. Doing Institutional Analysis: Digging Deeper than Markets and Hierarchies, in: Ménard, C., Shirley, M.M. (Eds.), *Handbook of New Institutional Economics*. Springer, Berlin, pp. 819–848.
- Owen, B.A., 1998. *In the mix: struggle and survival in a women 's prison*. State University of New York Press, Albany.
- Paavola, J., Adger, W.N., Huq, S., 2006. Multifaceted Justice in Adaptation to Climate Change, in: Adger, W.N., Paavola, J., Huq, S., Mace, M.J. (Eds.), *Fairness in Adaptation to Climate Change*. MIT Press, Cambridge, Massachusetts, pp. 263–277.
- Parashar, S., Sharma, A., Shaw, R., 2011. Chapter 9: From Action Planning to Community-Based Adaptation, in: Shaw, R., Sharma, A. (Eds.), *Climate and Disaster Resilience in Cities*. Emerald Group Publishing Limited, pp. 163–182.
- Park, S., Howden, M., Crimp, S., 2012. Informing regional level policy development and actions for increased adaptive capacity in rural livelihoods. *Environmental Science & Policy* 15, 23–37. doi:10.1016/j.envsci.2011.09.004
- Patton, M.Q., 2002. *Qualitative research and evaluation methods*, 3 ed. ed. Sage Publications, Thousand Oaks, California.
- Peet, R., Robbins, P., Watts, M. (Eds.), 2011. *Global political ecology*. Routledge, London and New York.
- Pelling, M., 2011. *Adaptation to Climate Change*. Routledge, New York.
- Pelling, M., High, C., 2005. Understanding adaptation: What can social capital offer assessments of adaptive capacity? *Global Environmental Change* 15, 308–319. doi:10.1016/j.gloenvcha.2005.02.001
- Peters, P.E. (Ed.), 2000. *Development encounters: sites of participation and knowledge*, Harvard studies in international development. Harvard Univ. Press, Cambridge, MA.
- Peters, P.E., 1996. “Who’s Local Here?” The Politics of Participation in Development. *Cultural Survival* 20.
- Petrova, S., 2014. *Communities in transition: protected nature and local people in Eastern and Central Europe*, Ashgate studies in environmental policy and practice. Ashgate, Farnham, Surrey, UK ; Burlington, VT USA.
- Pew Research Center, 2015. *Climate Change Seen as Top Global Threat*.
- Phillips, M., 2000. Theories of Positionality and Ethnography in the Rural, in: Hughes, A., Seymour, S., Morris, C. (Eds.), *Ethnography and Rural Research*. Countryside Community Press in association with the Rural Geography Study Group, of the RGS-IBG, Cheltenham, pp. 28–51.
- Picketts, I.M., Déry, S.J., Curry, J.A., 2014. Incorporating climate change adaptation into local plans. *Journal of Environmental Planning and Management* 57, 984–1002. doi:10.1080/09640568.2013.776951
- Picketts, I.M., Werner, A.T., Murdock, T.Q., Curry, J., Déry, S.J., Dyer, D., 2012. Planning for climate change adaptation: lessons learned from a community-based workshop. *Environmental Science & Policy* 17, 82–93. doi:10.1016/j.envsci.2011.12.011
- Portes, A., 1998. Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology* 24, 1–24.
- Pretty, J., Ward, H., 2001. Social capital and the environment. *World development* 29, 209–227.
- Pulhin, J.M., Lasco, R.D., Pulhin, F.B., Ramos, L., Peras, R.J.J., 2010. Chapter 11 Climate change adaptation and community forest management, in: Shaw, R., Pulhin, J.M., Jacqueline Pereira, J. (Eds.), *Community, Environment and*

- Disaster Risk Management. Emerald Group Publishing Limited, pp. 243–263. doi:10.1108/S2040-7262(2010)0000004017
- Ranci re, J., 2010. *Dissensus: on politics and aesthetics*. Continuum, London ; New York.
- Ranci re, J., 1999. *Disagreement: politics and philosophy*. University of Minnesota Press, Minneapolis.
- Rawlani, A.K., Sovacool, B.K., 2011. Building responsiveness to climate change through community based adaptation in Bangladesh. *Mitigation and Adaptation Strategies for Global Change* 16, 845–863. doi:10.1007/s11027-011-9298-6
- Rayner, S., Malone, E.L., 2001. Climate change, poverty, and intragenerational equity: the national level. *International Journal of Global Environmental Issues* 1, 175–202.
- Rector, I., Hagemann, S., Salgado Silva, C., 2013. *Africa Adaptation Programme: Terminal Report (Project report)*. UNDP.
- Reed, A., 2006. *Papua New Guinea’s last place: experiences of constraint in a postcolonial prison*. Berghahn Books, New York.
- Ribot, J., 2010. Vulnerability does not fall from the sky: toward multiscale, pro-poor climate policy. *Social dimensions of climate change: Equity and vulnerability in a warming world* 47–74.
- Ribot, J.C., 2014. Cause and response: vulnerability and climate in the Anthropocene. *The Journal of Peasant Studies* 41, 667–705. doi:10.1080/03066150.2014.894911
- Ribot, J.C., 2009. Vulnerability does not just Fall from the Sky: Toward Multi-scale Pro-poor Climate Policy, in: Mearns, R., Norton, A. (Eds.), *The Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. The World Bank, Washington, DC, pp. 47–74.
- Ribot, J.C., 2000. Decentralization, Participation, and Representation: Administrative Apartheid in Sahelian Forestry, in: Peters, P.E. (Ed.), *Development Encounters: Sites of Participation and Knowledge*, Harvard Studies in International Development. Harvard Univ. Press, Cambridge, MA, pp. 29–60.
- Rudd, M.A., 2000. Live long and prosper: collective action, social capital and social vision. *Ecological economics* 34, 131–144.
- Said, E.W., 2003. *Orientalism*, Reprinted with a new preface. ed, Penguin Classics. Penguin Books, London New York.
- Sarewitz, D., Pielke, R., Keykhan, M., 2003. Vulnerability and Risk: Some Thoughts from a Political and Policy Perspective. *Risk Analysis* 23, 805–810. doi:10.1111/1539-6924.00357
- Schlembach, R., Lear, B., Bowman, A., 2012. Science and ethics in the post-political era: strategies within the Camp for Climate Action. *Environmental Politics* 21, 811–828. doi:10.1080/09644016.2012.692938
- Schlosberg, D., 2012. Climate justice and capabilities: a framework for adaptation policy. *Ethics & International Affairs* 26, 445–461.
- Schlosberg, D., Collins, L.B., 2014. From environmental to climate justice: climate change and the discourse of environmental justice: Climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change* 5, 359–374. doi:10.1002/wcc.275
- Scoville-Simonds, M., 2016. *The Governance of Climate Change Adaptation Finance—An Overview and Critique*. *Revue internationale de politique de d veloppement*. doi:10.4000/poldev.2243
- Second Communication, 2012. *Deuxi me Communication Nationale (Second National Communication to the UNFCCC Secretariat)*, National Communications. Ministry of Natural Resources and Public Works, S o Tom .

- Seibert, G., 2006. *Comrades, clients and cousins: colonialism, socialism and democratization in Sao Tome and Principe*, 2nd ed, African social studies series. Brill, Leiden.
- Sen, A., 1984. *Resources, values and development*. Basil Blackwell, Oxford.
- Serrao-Neumann, S., Di Giulio, G.M., Ferreira, L.C., Low Choy, D., 2013. Climate change adaptation: Is there a role for intervention research? *Futures* 53, 86–97. doi:10.1016/j.futures.2013.08.002
- Shatkin, G., 2007. *Collective action and urban poverty alleviation: community organizations and the struggle for shelter in Manila*, Urban and regional planning and development series. Ashgate, Aldershot, England and Burlington, VT.
- Shore, C., 1999. Fictions of fieldwork: Depicting the “self” in ethnographic writing (Italy), in: Watson, C.W. (Ed.), *Being There: Fieldwork in Anthropology, Anthropology, Culture, and Society*. Pluto Press, London ; Sterling, Va, pp. 25–48.
- Shrestha, M.K., 2013. Internal versus External Social Capital and the Success of Community Initiatives: A Case of Self-Organizing Collaborative Governance in Nepal. *Public Administration Review* 73, 154–164.
- Shuhrke, J., 2013. Toward Radical Risk Reduction and Revolutionary Adaptation: Climate Disasters, Agriculture, and Capitalist Modernity. *Human Geography* 6, 67–77.
- Simane, B., Zaitchik, B., 2014. The Sustainability of Community-Based Adaptation Projects in the Blue Nile Highlands of Ethiopia. *Sustainability* 6, 4308–4325. doi:10.3390/su6074308
- Simpson, B., 2001. Swords into Ploughshares: Manipulating Metaphor in the Divorce Process, in: Gellner, D.N., Hirsch, E. (Eds.), *Inside Organizations: Anthropologists at Work*. Berg, Oxford, pp. 99–116.
- Singh, N.M., 2013. The affective labor of growing forests and the becoming of environmental subjects: Rethinking environmentality in Odisha, India. *Geoforum* 47, 189–198. doi:10.1016/j.geoforum.2013.01.010
- Smith, D.E., 2005. *Institutional ethnography: a sociology for people, The gender lens series*. AltaMira Press, Walnut Creek, CA.
- Sovacool, B.K., 2011. Hard and soft paths for climate change adaptation. *Climate Policy* 11, 1177–1183. doi:10.1080/14693062.2011.579315
- Sovacool, B.K., D’Agostino, A.L., Meenawat, H., Rawlani, A., 2012a. Expert views of climate change adaptation in least developed Asia. *Journal of Environmental Management* 97, 78–88. doi:10.1016/j.jenvman.2011.11.005
- Sovacool, B.K., D’Agostino, A.L., Rawlani, A., Meenawat, H., 2012b. Improving climate change adaptation in least developed Asia. *Environmental Science & Policy* 21, 112–125. doi:10.1016/j.envsci.2012.04.009
- Spivak, G., 1988. Can the Subaltern Speak?, in: Nelson, C., Grossberg, L. (Eds.), *Marxism and the Interpretation of Culture*. University of Illinois Press, Urbana, pp. 271–314.
- Stillings, Z.L., 2014. Human Rights and the New Reality of Climate Change: Adaptation’s Limitations in Achieving Climate Justice. *Michigan Journal of International Law* 638–671.
- Swyngedouw, E., 2013a. Apocalypse Now! Fear and Doomsday Pleasures. *Capitalism Nature Socialism* 24, 9–18. doi:10.1080/10455752.2012.759252
- Swyngedouw, E., 2013b. The non-political politics of climate change. *Acme* 12, 1–8.
- Swyngedouw, E., 2011a. Interrogating post-democratization: Reclaiming egalitarian political spaces. *Political Geography* 30, 370–380.

- Swyngedouw, E., 2011b. Depoliticized Environments: The End of Nature, Climate Change and the Post-Political Condition. *Royal Institute of Philosophy Supplement* 69, 253–274. doi:10.1017/S1358246111000300
- Swyngedouw, E., 2011c. Whose environment?: the end of nature, climate change and the process of post-politicization. *Ambiente & Sociedade* 14, 69–87.
- Swyngedouw, E., 2010. Apocalypse Forever?: Post-political Populism and the Spectre of Climate Change. *Theory, Culture & Society* 27, 213–232. doi:10.1177/0263276409358728
- Swyngedouw, E., 2009. The Antinomies of the Postpolitical City: In Search of a Democratic Politics of Environmental Production. *International Journal of Urban and Regional Research* 33, 601–620. doi:10.1111/j.1468-2427.2009.00859.x
- Swyngedouw, E., Williams, J., 2016. From Spain’s hydro-deadlock to the desalination fix. *Water International* 41, 54–73. doi:10.1080/02508060.2016.1107705
- Symons, K., 2014. Anti-politics, Apocalypse and Adaptation in Kenya’s National Climate Change Response Strategy. *Scottish Geographical Journal* 130, 266–278. doi:10.1080/14702541.2014.907442
- Tanner, T., Allouche, J., 2011. Towards a New Political Economy of Climate Change and Development. *IDS Bulletin* 42, 1–13.
- Taylor, M., 2014. *The political ecology of climate change adaptation: livelihoods, agrarian change and the conflicts of development*. Routledge, Abingdon, Oxon and New York, NY.
- Taylor, M., 2013. Climate change, relational vulnerability and human security: rethinking sustainable adaptation in agrarian environments. *Climate and Development* 5, 318–327. doi:10.1080/17565529.2013.830954
- Thomas, D.S.G., Twyman, C., 2005. Equity and justice in climate change adaptation amongst natural-resource-dependent societies. *Global Environmental Change* 15, 115–124. doi:10.1016/j.gloenvcha.2004.10.001
- Tripathy, J., Mohapatra, D., 2011. Does Development Exist outside Representation? *Journal of Developing Societies* 27, 93–118. doi:10.1177/0169796X1102700201
- Tschakert, P., Machado, M., 2012. Gender Justice and Rights in Climate Change Adaptation: Opportunities and Pitfalls. *Ethics and Social Welfare* 6, 275–289. doi:10.1080/17496535.2012.704929
- Turner, B.L., 2010. Vulnerability and resilience: Coalescing or paralleling approaches for sustainability science? *Global Environmental Change* 20, 570–576. doi:10.1016/j.gloenvcha.2010.07.003
- UNDESA, 2005. *Adaptation to Climate Change in the Context of Sustainable Development*. Presented at the Climate Change and Sustainable Development: A Workshop to Strengthen Research and Understanding, New Delhi.
- UNDP, 2017. UNDP Regional Service Centre for Africa [WWW Document]. UNDP in Africa. URL <http://www.africa.undp.org/content/rba/en/home/about-us/regional-service-centre-for-africa.html> (accessed 7.7.17).
- UNDP, 2015. Relatório anual do Pojecto “Reforço das capacidades das comunidades rurais para a adaptação aos efeitos das mudanças climáticas nos distritos de Cauê, Mé-Zochi, Príncipe, Lembá, Cantagalo e Lobata (CMPLCL). Junho-Dezembro de 2015 (Annual report). Centro, São Tomé.
- UNDP, 2014. Project Document. Enhancing capacities of rural communities to pursue climate resilient livelihood options in the Sao Tome and Principe districts of Caué, Me-Zochi, Principe, Lemba, Cantagalo, and Lobata (CMPLCL).
- UNDP, 2011. *Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty*.

- UNFCCC, 2014. Compendium on methods and tools to evaluate impacts of, and vulnerability and adaptation to, climate change [WWW Document]. URL http://unfccc.int/adaptation/nairobi_work_programme/knowledge_resources_and_publications/items/5376.php (accessed 2.26.15).
- UNFCCC, 2005. Climate Change: Small Island Developing States. UNFCCC Secretariat, Bonn, Germany.
- UNFCCC, 2002. Report of the Conference of the Parties on its Seventh Session, Held at Marrakesh from 29 October to 10 November 2001. Addendum Part Two: Actions Taken by the Conference of the Parties (No. FCCC/CP/2001/13/Add.4).
- United Nations Framework Convention on Climate Change, 1992. , FCCC/INFORMAL/84.
- Uphoff, N., 2000. Understanding social capital: learning from the analysis and experience of participation, in: Dasgupta, P., Serageldin, I. (Eds.), *Social Capital: A Multifaceted Perspective*. World Bank, Washington, DC, pp. 215–249.
- Vaughan, S., Tronvoll, K., 2003. The culture of power in contemporary Ethiopian political life. Swedish International Development Cooperation Agency, Stockholm.
- Velicu, I., Kaika, M., 2017. Undoing environmental justice: Re-imagining equality in the Rosia Montana anti-mining movement. *Geoforum* 84, 305–315. doi:10.1016/j.geoforum.2015.10.012
- Wagner, C.L., Fernandez-Gimenez, M.E., 2009. Effects of Community-Based Collaborative Group Characteristics on Social Capital. *Environmental Management* 44, 632–645. doi:10.1007/s00267-009-9347-z
- Walker, J., Cooper, M., 2011. Genealogies of resilience: From systems ecology to the political economy of crisis adaptation. *Security Dialogue* 42, 143–160. doi:10.1177/0967010611399616
- Watson, C.W., 1999. Introduction: The Quality of Being There, in: Watson, C.W. (Ed.), *Being There: Fieldwork in Anthropology, Anthropology, Culture, and Society*. Pluto Press, London ; Sterling, Va, pp. 1–24.
- Watts, M., 2011. On confluences and divergences. *Dialogues in Human Geography* 1, 84–89. doi:10.1177/2043820610386340
- Watts, M., 2004. XXAntinomies of Community: Some Thoughts on Geography, Resources and Empire. *Transactions of the Institute of British Geographers* 29, 195–216.
- Weisser, F., Bollig, M., Doevenspeck, M., Müller-Mahn, D., 2014. Translating the “adaptation to climate change” paradigm: the politics of a travelling idea in Africa. *The Geographical Journal* 180, 111–119. doi:10.1111/geoj.12037
- Welch, A., Mueller, M., 2015. Climate Change: Problem Solved. *Focus Science and Technology* 56–66.
- Williams, G., 2004. Evaluating participatory development: tyranny, power and (re)politicisation. *Third World Quarterly* 25, 557–578. doi:10.1080/0143659042000191438
- Williams, S., Booth, K., 2013. Time and the spatial post-politics of climate change: Insights from Australia. *Political Geography* 36, 21–30. doi:10.1016/j.polgeo.2013.07.001
- Williamson, T., Hesseln, H., Johnston, M., 2012. Adaptive capacity deficits and adaptive capacity of economic systems in climate change vulnerability assessment. *Forest Policy and Economics* 15, 160–166. doi:10.1016/j.forpol.2010.04.003

- Wilson, J., Swyngedouw, E. (Eds.), 2014a. *The post-political and its discontents: spaces of depoliticisation, spectres of radical politics*. Edinburgh University Press, Edinburgh.
- Wilson, J., Swyngedouw, E., 2014b. Introduction: Seeds of Dystopia: Post-Politics and the Return of the Political, in: Wilson, J., Swyngedouw, E. (Eds.), *The Post-Political and Its Discontents*. Edinburgh University Press, Edinburgh, pp. 1–22.
- Wilson, J.A., Acheson, J.M., Johnson, T.R., 2013. The cost of useful knowledge and collective action in three fisheries. *Ecological Economics* 96, 165–172. doi:10.1016/j.ecolecon.2013.09.012
- Winkelman, W., Halifax, N., 2007. Power is Only Skin Deep: An Institutional Ethnography of Nurse-Driven Outpatient Psoriasis Treatment in the Era of Clinic Web Sites. *Journal of Medical Systems* 31, 131–139. doi:10.1007/s10916-006-9048-6
- Winlow, S., Hall, S., 2012. A Predictably Obedient Riot: Postpolitics, Consumer Culture, and the English Riots of 2011. *Cultural Politics an International Journal* 8, 465–488. doi:10.1215/17432197-1722163
- Wisner, B. (Ed.), 2004. *At risk: natural hazards, people's vulnerability, and disasters*, 2nd ed. ed. Routledge, London ; New York.
- Wolf, J., Adger, W.N., Lorenzoni, I., Abrahamson, V., Raine, R., 2010. Social capital, individual responses to heat waves and climate change adaptation: An empirical study of two UK cities. *Global Environmental Change* 20, 44–52. doi:10.1016/j.gloenvcha.2009.09.004
- Wong, P.P., 2009. Rethinking post-tsunami integrated coastal management for Asia-Pacific. *Ocean & Coastal Management* 52, 405–410. doi:10.1016/j.ocecoaman.2009.04.013
- World Bank, 2017. Country Profile: São Tomé and Príncipe [WWW Document]. World Development Indicators. URL http://databank.worldbank.org/data/Views/Reports/ReportWidgetCustom.aspx?Report_Name=CountryProfile&Id=b450fd57&tbar=y&dd=y&inf=n&zm=n&country=STP (accessed 6.21.17).
- World Bank, 2009. *Making Development Climate Resilient: A World Bank Strategy for Sub-Saharan Africa* (No. 46947–AFR).
- Xu, L., Marinova, D., 2013. Resilience thinking: a bibliometric analysis of socio-ecological research. *Scientometrics* 96, 911–927. doi:10.1007/s11192-013-0957-0
- Yip, W., Subramanian, S.V., Mitchell, A.D., Lee, D.T.S., Wang, J., Kawachi, I., 2007. Does social capital enhance health and well-being? Evidence from rural China. *Social Science & Medicine* 64, 35–49. doi:10.1016/j.socscimed.2006.08.027
- Young, I.M., 1986. The Ideal of Community and the Politics of Difference. *Social Theory and Practice* 12, 1–26.

10. Appendices

Appendix 1

Results of the multi-criteria analysis of the available LDCF projects. Out of a total of 92 projects, 42 passed the initial screening and are listed here in order of preference. The originally preferred project in Madagascar and the ultimately selected project in São Tomé and Príncipe are highlighted in orange and green, respectively. Adapted from GEF, 2017.

Country	Preference (I-High, IV-Low)	GEF-accredited Agency	LDCF Project Title
Cabo Verde	I	UNDP	Building adaptive capacity and resilience to climate change in the water sector in Cape Verde
Ethiopia	I	UNDP	Promoting autonomous adaptation at the community level in Ethiopia
Gambia	I	UNDP	Enhancing the resilience of vulnerable coastal areas and communities to climate change
Guinea-Bissau	I	UNDP	Strengthening resilience and adaptive capacity to climate change in Guinea-Bissau's agrarian water sectors
Lesotho	I	IFAD	Adaptation of small scale agriculture production (ASAP)
Madagascar	I	AfDB	Enabling climate resilience in the agriculture sector in the southwest region of Madagascar
Madagascar	I	UNDP	Enhancing the adaptation capacities and resilience to climate change in rural communities in Analamanga, Atsinanana, Androy, Anosy, and Atsimo Andrefana
Malawi	I	AfDB	Climate adaptation for rural livelihoods and agriculture (CARLA)
Mozambique	I	FAO	Strengthening capacities of agricultural producers to cope with climate change for increased food security through the farmers field school approach
São Tomé and Príncipe	I	UNDP	Enhancing capacities of rural communities to pursue climate resilient livelihood options in São Tomé and Príncipe districts of Caué, Mé-Zóchi, Príncipe, Lembá, Cantagalo, and Lobata (CMPLCL)
Senegal	I	FAO	Mainstreaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable areas through the farmer field school methodology
Togo	I	IFAD	Adapting agricultural production in Togo (ADAPT)
Uganda	I	UNIDO	Reducing vulnerability of banana producing communities to climate change through banana value added activities - enhancing food security and employment generation
Zambia	I	UNDP	Adaptation to the effects of droughts and climate change in agro-ecological zone 1 and 2 in Zambia
Zambia	I	UNDP	Promoting climate resilient community-based regeneration of indigenous forests in Zambia's Central Province
Angola	II	UNDP	Promoting climate-resilient development and enhanced adaptive capacity to withstand disaster risks in Angola's Cuvélai River Basin
Angola	II	AfDB	Integrating climate change into environment and sustainable land management practices
Lesotho	II	UNDP	Reducing vulnerability from climate change in the foothills, lowlands and the Lower Senqu River Basin
Madagascar	II	UNEP	Adapting coastal zone management to climate change in Madagascar considering ecosystem and livelihood improvement
Malawi	II	UNDP	Climate proofing local development gains in rural and urban areas of Machinga and Mangochi districts
Mozambique	II	UNDP	Adaptation in the coastal zone of Mozambique
Angola, Namibia, South Africa	II	FAO	Enhancing climate change resilience in the Benguela current fisheries system (regional project: Angola, Namibia and South Africa)
São Tomé and Príncipe	II	AfDB	Strengthening the adaptive capacity of most vulnerable São Toméan's livestock-keeping households

São Tomé and Príncipe	II	World Bank	São Tomé and Príncipe: adaptation to climate
Senegal	II	IFAD	Climate change adaptation project in the areas of watershed management and water retention
Tanzania	II	UNEP	Developing core capacity to address adaptation to climate change in Tanzania in productive coastal zones
Zambia	II	AfDB	Climate resilient livestock management
Benin	III	UNDP	Integrated adaptation programme to combat the effects of climate change on agricultural production and food security in Benin
Burkina Faso	III	UNDP	Strengthening adaptation capacities and reducing the vulnerability to climate change in Burkina Faso
Burkina Faso	III	FAO	Integrating climate resilience into agricultural and pastoral production/or food security in vulnerable rural areas through the farmers field school approach
Burkina Faso	III	UNDP	Adapting natural resource dependent livelihoods to climate induced risks in selected landscapes in Burkina Faso: the Boucle du Mouhoun Forest Corridor and the Mare d'Oursi Wetlands Basin
Djibouti	III	UNEP	Implementing Adaptation Technologies in Fragile Ecosystems of Djibouti's Central Plains
Djibouti	III	UNDP	Supporting rural community adaptation to climate change in mountain regions of Djibouti
Rwanda	III	AfDB	Increasing the capacity of vulnerable Rwandan communities to adapt to the adverse effects of climate change: livelihood diversification and investment in rural infrastructures
Rwanda	III	UNEP	Building the resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through ecosystem management approach
Sudan	III	UNDP	Implementing NAPA priority interventions to build resilience in the agricultural and water sectors to the adverse impacts of climate change
Sudan	III	IFAD	Livestock and rangeland resilience programme
Burundi	IV	UNDP	Community disaster risk management
Burundi	IV	AfDB	Enhancing climate risk management and adaptation in Burundi
Comoros	IV	UNDP and UNEP	Adapting water resource management in Comoros to increase capacity to cope with climate change
Djibouti	IV	UNEP	Implementing NAPA priority interventions to build resilience in the most vulnerable coastal zones in Djibouti
Eritrea	IV	UNDP	Integrating climate change risks into community-based livestock management in the Northwestern Lowlands of Eritrea
Sudan	IV	UNDP	Climate risk finance for sustainable and climate resilient rainfed farming and pastoral systems

Appendix 2

List of all the 56 interviews, which took place between November 2015 and May 2016. All interviews were conducted in person (except #5 and #15) and audio-recorded (except #32).

#	Interviewee Type	Organization Type	Interview Location	Language	Date mm/dd/yy	Length mm:ss	Interpreted
1	Project staff	UNDP	RSCA, Addis Ababa	English	12/09/15	50:54	
2		UNDP	RSCA, Addis Ababa	English	12/09/15	29:29	
3		UNDP	RSCA, Addis Ababa	English	12/11/15	55:06	
4		UNDP	RSCA, Addis Ababa	English	12/16/15	51:10	
5		UNDP	New York (remotely via Skype)	English	12/12/15	44:31	
6		UNDP	UNDP CO, São Tomé	Portuguese	05/04/16	72:12	✓
7		UNDP	UNDP CO, São Tomé	Portuguese	05/05/16	56:10	✓
8		UNDP	UNDP CO, São Tomé	French	04/29/16	25:46	✓
9		UNDP	UNDP CO, São Tomé	English	05/02/16	85:42	
10		UNDP	UNDP CO, São Tomé	English	05/12/16	73:38	
11		UNDP	UNDP CO, São Tomé	English	05/13/16	44:58	
12		UNDP	Interviewee's home, São Tomé	English	05/09/16	76:51	
13		Freelancer	UNDP CO, São Tomé	English	05/04/16	79:10	
14		MoARD, STP	Interviewee's workplace, São Tomé	Portuguese	04/29/16	76:18	✓
15	Development practitioner (non-UNDP)	NGO	Uganda (remotely via Skype)	English	11/23/15	62:33	
16		NGO	Interviewee's workplace, Addis Ababa	English	11/23/15	60:26	
17		NGO	Interviewee's workplace, Addis Ababa	English	11/25/15	70:11	
18		NGO	Interviewee's workplace, Addis Ababa	English	11/25/15	32:32	
19		NGO	Interviewee's workplace, Addis Ababa	English	11/26/15	65:47	
20		NGO	Interviewee's workplace, Addis Ababa	English	11/30/15	53:41	
21		NGO	Interviewee's workplace, Addis Ababa	English	12/18/15	47:26	
22		NGO	RSCA, Addis Ababa	English	12/02/15	65:38	
23		NGO	Interviewee's workplace, São Tomé	English	04/13/16	75:36	
24		NGO	Interviewee's workplace, São Tomé	English	04/13/16	61:03	
25		NGO	Interviewee's workplace, São Tomé	English	04/19/16	81:32	
26		NGO	Interviewee's workplace, São Tomé	English	04/26/16	74:56	
27		NGO	Interviewee's workplace, São Tomé	English	05/06/16	75:51	
28		NGO	UNDP CO, São Tomé	Portuguese	04/28/16	67:28	✓
29		Gov't Agency	Interviewee's workplace, Addis Ababa	English	12/02/15	32:46	
30		Gov't Agency	Interviewee's workplace, São Tomé	Italian	04/12/16	69:06	
31		Gov't Agency	Interviewee's workplace, São Tomé	English	04/19/16	57:19	
32		Aid Agency	Interviewee's workplace, São Tomé	English	03/29/16	67:39	
33		Aid Agency	Interviewee's workplace, São Tomé	Portuguese	04/19/16	45:00	✓
34		IO	Interviewee's workplace, São Tomé	Portuguese	04/12/16	90:20	✓
35		IO	Interviewee's workplace, São Tomé	Portuguese	04/28/16	45:50	✓
36		IO	Pestana Hotel, São Tomé	English	05/02/16	45:04	
37	Resident of Liberdade (woman)	n/a	Interviewee's home, Liberdade	Portuguese and/or Cabo-Verdean Creole	04/21/16	42:29	✓
38			Interviewee's home, Liberdade		04/21/16	64:00	✓
39			Interviewee's home, Liberdade		04/21/16	44:20	✓
40			Interviewee's home, Liberdade		04/27/16	73:29	✓
41			Interviewee's home, Liberdade		04/27/16	72:59	✓
42			Interviewee's home, Liberdade		04/27/16	49:35	✓
43			Interviewee's home, Liberdade		04/27/16	47:05	✓
44			Interviewee's home, Liberdade		05/13/15	51:11	✓
45			Interviewee's home, Liberdade		05/13/16	64:18	✓
46			Fabio's home, Liberdade		04/21/16	52:48	✓
47	Resident of Liberdade (man)	n/a	Fabio's home, Liberdade	Portuguese and/or Cabo-Verdean Creole	04/15/16	66:39	✓
48			Fabio's home, Liberdade		04/15/16	93:17	✓
49			Fabio's home, Liberdade		04/15/16	73:00	✓
50			Interviewee's home, Liberdade		04/15/16	86:12	✓
51			Interviewee's home, Liberdade		04/20/16	79:33	✓
52			Interviewee's home, Liberdade		04/20/16	42:50	✓
53			Interviewee's home, Liberdade		04/20/16	44:19	✓
54			Interviewee's home, Liberdade		04/20/16	87:57	✓
55			Interviewee's home, Liberdade		05/06/16	102:08	
56			Interviewee's field		05/06/16	70:34	✓

Appendix 3

The agencies accredited to the Global Environment Facility (GEF). Source: GEF, 2016.

	GEF Accredited Agency	Type
1	Asian Development Bank (ADB)	International financial institution
2	African Development Bank (AfDB)	International financial institution
3	European Bank for Reconstruction and Development (EBRD)	International financial institution
4	Food and Agriculture Organization (FAO)	UN agency
5	Inter-American Development Bank	International financial institution
6	International Fund for Agricultural Development (IFAD)	UN agency
7	United Nations Development Program (UNDP)	UN agency
8	United Nations Environment Program (UNEP)	UN agency
9	United Nations Industrial Development Organization (UNIDO)	UN agency
10	The World Bank Group (WBG)	International financial institution
11	Conservation International	International NGO
12	Development Bank of Latin America	International financial institution
13	Development Bank of Southern Africa	International financial institution
14	Foreign Economic Cooperation Office, Ministry of Environmental Protection of China	Government agency
15	Brazilian Biodiversity Fund	International NGO
16	International Union for Conservation of Nature (IUCN)	International NGO
17	West African Development Bank	International financial institution
18	World Wildlife Fund (WWF-US)	International NGO

Appendix 4

NAPA priority projects in São Tomé and Príncipe ranked by importance (adapted from NAPA 2006). Source: NAPA, 2006.

Rank	Projects	Sector
1	Training and equipment for artisanal fishermen	Fisheries
2	Establishing a system of climate alert	Infrastructure
3	Communication action for behavior change	Health
4	Placement and installation of Device for Fish Concentration (DFC) in coastal zones	Fisheries
5	Construction of two systems of drinking water supply in rural zones	Water
6	Reinforcement and diversification of agricultural production	Agriculture
7	Integrated project of livestock development (goats and cows) in the north part of S. Tomé	Livestock and Agriculture
8	Sustainable management of forest resources	Agriculture
9	Relocation of local communities (Malanza, Santa Catarina and Sundry) at risk of floods and landfalls	Infrastructure
10	Construction of shelters and parks for artisanal fishing	Fisheries
11	Introduction of the new technologies for firewood use and to make charcoal	Energy
12	Establishing the agro-tourist complexes at Monte Café and Porto Real	Infrastructure
13	Create an epidemic data base about potentials diseases related to CC	Health
14	Elaboration of strategic and emergency plans emphasizing the health sector	Health
15	Reinforcement of Human Technical Capacity of National Civil Protection and Fire Brigade	Civil Protection
16	Training (doctors, nurses, volunteers, helpers students, etc..) for emergency needs and study visits	Health
17	Sustainable management of water and energy	Water and Energy
18	Correlate data for diseases of vector origin, focusing on malaria, through GIS systems, with MARA/OMS initiative foreseeing the spatial risk of the problem (epidemic malaria)	Health
19	Introduction of renewable energy	Energy
20	Construction of two hydro power-stations, at Claudino Faro and Bernardo Faro	Energy
21	Evaluation and planning the hydro resources	Water and Energy
22	Reinforcement the car parking of the National Civil Protection and Fire Brigade	Civil Protection

Appendix 5

Components, outcomes, outputs, and selected activities of the project. Adapted from UNDP, 2014.

Component	Outcome	Outputs	Activities
1. Developing capacities of the key institutions of relevance to rural development and livelihoods including CBOs and other CSOs to effectively support communities' resilience and adaptation to climate change.	1. The capacity of the CATAP, CIAT, DGE, district governments and assemblies, district councils, CSOs and CBOs strengthened to support the enhancement of climate resilience of rural community livelihoods.	1.1 Development of institutional capacity of CIAT to develop agro-sylvo-pastoral adaptation technologies.	<ul style="list-style-type: none"> - support the HR, technical and infrastructure capacity of CIAT and CATAP, -establish partnership with an adaptation training center to deliver training to CIAT, -integrate climate change concerns into CIAT SOPs for a range of breeding and agricultural programs, -develop a mobile advisory service to support climate change platform implementation plans, - train CADR staff on climate advisory support, - logistics support for CADR (mobility and working equipment), - establish a partnership with an international observatory for farmers to train agricultural extension staff, - establish a partnership with SATOCAO (private cocoa company) to fund cocoa advisory services provided by CADR - develop agro-meteorological warnings and advisories to support farming under the conditions of drought.
		1.2 Training of 50 CATAP staff in climate impacts on agricultural production, resilient farming and adaptation technologies.	<ul style="list-style-type: none"> - support the HR, technical and infrastructure capacity of CIAT and CATAP, - establish partnership with an adaptation training center to deliver training to CIAT, -integrate climate change concerns into CIAT SOPs for a range of breeding and agricultural programs, -develop a mobile advisory service to support climate change platform implementation plans.
		1.3 Developing the capacity of CADR to support implementation of these technologies and provide advisory support to farmers.	<ul style="list-style-type: none"> - create district-level climate change committees, - identify 30 most vulnerable communities using GIS, - conduct a climate vulnerability capacity assessment (VCA) in livelihood analysis in the 30 villages, - train the leading members of the climate change platforms in capacity building.
		1.4 Creation of district- and village-level platforms.	<ul style="list-style-type: none"> - train up to 300 representatives of district and village platforms and local authorities in the development of Annual Adaptation Plans and related budgeting, - train local CBOs in the 30 villages in identifying and addressing the causes of vulnerability, - organize and establish climate change Farmer Field Schools demonstration plots for farmers with the goal of raising awareness on climate issues and remedies.
		1.5 Training of up to 300 platform members in resilient livelihoods.	<ul style="list-style-type: none"> - train 10 national administration staff in GIS and use the results to mainstream climate risks into national policies, - develop a project website for dissemination of CBA approaches and lessons learned at the community level, - adapt climate risk assessment tools to the local context and train the audience in how to use them in preparing district climate change platforms, - develop the training materials for the training needs described above on crop/agro-forestry, small livestock, fisheries and aquaculture, fruit and vegetables, rainwater harvesting and irrigation, climate change and erosion control, and others.
		1.6 Training of up to 10 national staff in GIS to identify climate risks and integrate them in planning.	

2. Investments for the protection of communities' livelihoods against climate risks.	2. Vulnerability of rural livelihoods reduced through climate risk management supportive infrastructures and practices.	2.1 Implementing small-scale community-managed approaches to manage floods, erosion and droughts.	<ul style="list-style-type: none"> - inventory communities' water needs and the appropriate irrigation systems, - construct small-scale water capture infrastructure through a Cash-for-Work scheme and the related small-scale irrigation networks, - develop small-scale terracing structures and tree-grass planting in sloped areas, - develop small-scale nurseries run by women's and youth associations with seedlings used for erosion control.
		2.2 Developing community-based safety net mechanisms against climate impacts.	<ul style="list-style-type: none"> - set up community climate change food cooperatives and cereal banks for crop surplus management, conservation and commercialization, - organize local horticulturalists and farmers to store and process the crops (tomatoes, pineapples, bananas, mangoes), - set up fish market stands and communal solar freezers, - strengthen the associations of producers to create a network of rural markets to facilitate the exchange of goods.
3. Diffusion of climate-resilient livelihood strategies in the most vulnerable communities.	3. Adaptation strategies are designed and transferred to strengthen communities' climate resilience in the 30 most vulnerable villages of the 6 districts of CMPLCL of São Tome and Principe.	3.1 Developing annual and multiyear village and district adaptation plans.	<ul style="list-style-type: none"> - establish SOPs for district and village climate change platforms for identifying local climate change constraints in farming systems, - map the causes of vulnerability against agromet seasonal forecasts on an annual basis, - develop Integrated Adaptation Measures (IAMs) to be included in annual and multiyear village and district adaptation plans, - carry out demonstration of IAMs in the 30 villages through resilient cropping methods, - monitor and evaluate the interventions in 30 villages with the goal of scaling up in the future.
		3.2 Developing long-term agro-sylvo-pastoral adaptation technologies, tools and mechanisms by partner entities.	<ul style="list-style-type: none"> - conduct consultations with farmers, livestock breeders and extension officers to identify the required adaptation technologies, tools and mechanisms and then develop these technologies by CIAT and CADR (including composting technology, fertilizer and pesticide management, weed control, climate resilient and alternative crops, etc.), - support the capacity of local smallholders to implement the above.
		3.3 Establishing village centers for agricultural product processing.	<ul style="list-style-type: none"> - establish and support the capacity of village product processing centers (one per district) to support arts and crafts, village infrastructure maintenance, beekeeping, liquor production, poultry breeding, and more. - develop a marketing strategy to improve market access for these products.
		3.4 Introducing three micro-finance options for beneficiaries.	<ul style="list-style-type: none"> - consult with MFIs and support them in the development of at least 3 micro-finance products for local communities, - identify community members willing to test new micro-finance products, - provide technical assistance to communities in preparing investment plans.

Appendix 6

Selected Participant Information Sheets and Consent Forms for project staff (English), government and NGO representatives (English), and community members (Portuguese).

MANCHESTER
1824

The University
of Manchester

Climate Change Adaptation Governance in Rural sub-Saharan Africa/ Preparing Local Communities for More Droughts

Participant Information Sheet for Project Staff (available in English and Portuguese)

You are being invited to take part in a research study conducted to satisfy the requirements for a PhD degree in Human Geography at the University of Manchester. The goal of the research is to study the effects of a climate change adaptation project carried out by the United Nations Development Programme called “Enhancing capacities of rural communities to pursue climate resilient livelihood options in the Sao Tome and Principe districts of Caué, Me-Zochi, Principe, Lemba, Cantagalo, and Lobata (CMPLCL).” Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

Who will conduct the research?

Michael Mikulewicz, a doctoral student in Human Geography at the University of Manchester. Michael's primary supervisor is Dr. Saska Petrova.

Please find their contact information at the end of this form.

Title of the Research

Climate Change Adaptation Governance in Rural sub-Saharan Africa / Preparing Local Communities for Climate Change

What is the aim of the research?

The aim of the research is to study how climate change adaptation policy and projects are carried out locally in rural sub-Saharan Africa, what socio-economic and political effects they have on local communities, and how these policies and programs could potentially be made more equitable in their processes and outcomes.

Why have I been chosen?

You have been chosen to take part in this study due to your knowledge about and involvement in development and climate change adaptation policies and programmes in sub-Saharan Africa, as well as your involvement in the above-mentioned adaptation project.

What would I be asked to do if I took part?

You would be invited to participate in one interview conducted by me. It would be a semi-structured interview, which means that I would ask you several main questions throughout the interview to broadly guide the discussion, but you would be free to select the focus and extent of our conversation.

I would like to talk to you about your work at UNDP in order to gain a better understanding of how climate adaptation is planned and carried out in the region. I believe that your input will help to make the study more balanced and comprehensive in that respect. Specifically, I would like to talk to you about your opinions on climate change adaptation as a policy issue and the role of UNDP in facilitating adaptation in developing countries, based on your professional experience. All questions will be strictly business-related and you will have the right to refuse to respond to any question and to terminate the interview at any point.

The interview will take place at the location of your choice (public or private) and will involve a one-on-one conversation with me. It will not take longer than an hour. With your permission, I will record the interview using a voice recorder and take notes in the meantime. After the interview, I may ask you some follow-up questions over e-mail, although you are welcome to refuse any further involvement in the study. Please note that these interviews will be anonymous and I will code the transcripts to ensure your anonymity.

Moreover, since this is a long-term research project, I aim to return within several years for a follow-up study of the more permanent effects of the policies and projects in question. If you are willing to be contacted on my return, please tick the relevant box in the Consent Form below.

What happens to the data collected?

The data will be used to produce a dissertation required from me to be awarded a PhD degree in Human Geography. Later, I may use the same data for other publications such as academic articles, books, reports, or conference papers.

Access to the collected data will be heavily restricted. Physical notes will be kept in a lockbox or a deposit box until transcribed. Electronic files will be transported and stored on password-protected devices in encrypted, password-protected folders. All data will end up in my personal folder on a secure University server.

Because this is a long-term study that will examine the more permanent effects of the above-mentioned adaptation project, the collected data will be stored for up to 10 years. It will be necessary to conduct a follow-up study in the same community in several years' time, and to compare the new data with previous studies, including this one.

How is confidentiality maintained?

The data will be stored in a secure place and I will be the only person with access to it. The interview will be recorded using a voice recorder, with the recordings being destroyed immediately after they are transcribed. Any names, including yours, will be anonymised to make sure you cannot be identified as a participant by anybody who is not involved in the study.

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself.

Will I be paid for participating in the research?

Unfortunately, I am unable to provide any sort of payment for participating in this research due to a very limited budget.

What is the duration of the research?

You will be asked to participate in one interview lasting no more than 60 minutes each. Moreover, since this is a long-term research project, I aim to return within several years for a

follow-up study of the more permanent effects of the policies and projects in question. If you are willing to be contacted on my return, please tick the relevant box in the Consent Form below.

Where will the research be conducted?

The location of the interview is entirely up to you. Please note that as part of my research, I spent 3 months in Addis Ababa, Ethiopia, conducting ethnographic research at the regional UNDP office preparing the adaptation project under study. I am currently based in the UNDP country office in São Tomé conducting further stages of research in one of the rural communities in the Lobata district.

Will the outcomes of the research be published?

The dissertation based on this research will be published by the University of Manchester and be accessible to the public. As mentioned above, the same data may be used for other publications such as books, academic articles, or conference papers in the future. The findings of this study will also be communicated to the UNDP, potentially through a separate report. Regardless of the type of publication, all data will remain anonymous so that you cannot be identified as a participant, unless you explicitly request otherwise.

Who has reviewed the research project?

The project has been reviewed by the University of Manchester Research Ethics Committee 1.

What if something goes wrong?

If there is anything about this study you would like to discuss, please contact me at michal.mikulewicz@manchester.ac.uk, +239 998 3561, or in person at any stage of the study. If you prefer to speak directly with my supervisor (Saska Petrova), please contact her at saska.petrova@manchester.ac.uk at any stage of the study.

If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Governance and Integrity Team by either writing to 'The Research Governance and Integrity Manager, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL, United Kingdom', by emailing: research.complaints@manchester.ac.uk, or by telephoning 0161 275 8093 or 275 2674.

Contact for further information

I (Michael Mikulewicz, main researcher) can be contacted at michal.mikulewicz@manchester.ac.uk or at +239 998 3561. Saska Petrova (primary supervisor) can be contacted at saska.petrova@manchester.ac.uk.

University address:

School of Environment, Education and Development
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M13 9PL
United Kingdom
Tel: +44 (0) 161 275 2817
Email: seed@manchester.ac.uk

**This Project Has Been Approved by the University of Manchester's
Research Ethics Committee**

***Climate Change Adaptation Governance in Rural sub-Saharan Africa/
Preparing Local Communities for More Droughts***

CONSENT FORM

If you are happy to participate please complete and sign the consent form below.

Please initial box

1.	I confirm that I have read the attached information sheet on the above project and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.	
2.	I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to any treatment/service.	
3.	I understand that the interview will be audio-recorded.	
4.	I agree to the use of anonymous quotes.	
5.	I am willing to be contacted within the next 10 years for the purposes of a follow-up study.	

I agree to take part in the above project

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of researcher	Date	Signature
_____	_____	_____

**This Project Has Been Approved by the University of Manchester's
Research Ethics Committee**

***Climate Change Adaptation Governance in Rural sub-Saharan Africa/
Preparing Local Communities for More Droughts***

Participant Information Sheet for Government and NGO Representatives
(available in English and Portuguese)

You are being invited to take part in a research study conducted to satisfy the requirements for a PhD degree in Human Geography at the University of Manchester. The goal of the research is to study the effects of a climate change adaptation project carried out by the United Nations Development Programme called "Enhancing capacities of rural communities to pursue climate resilient livelihood options in the Sao Tome and Principe districts of Caué, Me-Zochi, Principe, Lemba, Cantagalo, and Lobata (CMPLCL)." Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

Who will conduct the research?

Michael Mikulewicz, a doctoral student in Human Geography at the University of Manchester. Michael's primary supervisor is Dr. Saska Petrova.

Please find their contact information at the end of this form.

Title of the Research

Climate Change Adaptation Governance in Rural sub-Saharan Africa / Preparing Local Communities for Climate Change

What is the aim of the research?

The aim of the research is to study how climate change adaptation policy and projects are carried out locally in rural sub-Saharan Africa, what socio-economic and political effects they have on local communities, and how these policies and programs could potentially be made more equitable in their processes and outcomes.

Why have I been chosen?

You have been chosen to take part in this study due to your knowledge about and involvement in development and climate change adaptation policies and programmes in sub-Saharan Africa.

What would I be asked to do if I took part?

You would be invited to participate in one interview conducted by me. It would be a semi-structured interview, which means that I would ask you several main questions throughout the interview to broadly guide the discussion, but you would be free to select the focus and extent of our conversation.

I would like to talk to you about your work at your current organization in order to gain a better understanding of how climate adaptation is planned and carried out in the region. I would like to include perspectives that are not limited to those of the UNDP staff, and I believe that your input will help to make the study more balanced and comprehensive in that respect. Specifically, I would like to talk to you about your opinions on climate change adaptation as a policy issue and the role of your and other organizations in facilitating adaptation in developing countries, based

on your professional experience. All questions will be strictly business-related and you will have the right to refuse to respond to any question and to terminate the interview at any point.

The interview will take place at the location of your choice (public or private) and will involve a one-on-one conversation with me. It will not take longer than an hour. With your permission, I will record the interview using a voice recorder and take notes in the meantime. As noted above, your insights will complement my research with a non-UNDP perspective on adaptation and development. After the interview, I may ask you some follow-up questions over e-mail, although you are welcome to refuse any further involvement in the study. Please note that these interviews will be anonymous and I will code the transcripts to ensure your anonymity.

Moreover, since this is a long-term research project, I aim to return within several years for a follow-up study of the more permanent effects of the policies and projects in question. If you are willing to be contacted on my return, please tick the relevant box in the Consent Form below.

What happens to the data collected?

The data will be used to produce a dissertation required from me to be awarded a PhD degree in Human Geography. Later, I may use the same data for other publications such as academic articles, books, reports, or conference papers.

Access to the collected data will be heavily restricted. Physical notes will be kept in a lockbox or a deposit box until transcribed. Electronic files will be transported and stored on password-protected devices in encrypted, password-protected folders. All data will end up in my personal folder on a secure University server.

Because this is a long-term study that will examine the more permanent effects of the UNDP-run adaptation project in sub-Saharan Africa, the collected data will be stored for up to 10 years. It will be necessary to conduct a follow-up study in the same community in several years' time, and to compare the new data with previous studies, including this one.

How is confidentiality maintained?

The data will be stored in a secure place and I will be the only person with access to it. The interview will be recorded using a voice recorder, with the recordings being destroyed immediately after they are transcribed. Any names, including yours and your organisation's, will be anonymised to make sure you cannot be identified as a participant by anybody who is not involved in the study.

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself.

Will I be paid for participating in the research?

Unfortunately, I am unable to provide any sort of payment for participating in this research due to a very limited budget.

What is the duration of the research?

You will be asked to participate in one interview lasting no more than 60 minutes each. Moreover, since this is a long-term research project, I aim to return within several years for a follow-up study of the more permanent effects of the policies and projects in question. If you are willing to be contacted on my return, please tick the relevant box in the Consent Form below.

Where will the research be conducted?

The location of the interview is entirely up to you.

Please note that as part of my research, I spent 3 months in Addis Ababa, Ethiopia, conducting ethnographic research at the regional UNDP office preparing the adaptation project under study. It is important that you understand that I am not an official representative of UNDP, I am not paid by UNDP, and that I have no other official affiliation to them. I am currently based in the UNDP country office in São Tomé conducting further stages of research in one of the rural communities in the Lobata district.

Will the outcomes of the research be published?

The dissertation based on this research will be published by the University of Manchester and be accessible to the public. As mentioned above, the same data may be used for other publications such as books, academic articles, or conference papers in the future. The findings of this study will also be communicated to the UNDP, potentially through a separate report. Regardless of the type of publication, all data will remain anonymous so that you cannot be identified as a participant, unless you explicitly request otherwise.

Who has reviewed the research project?

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Saska Petrova (primary supervisor) can be contacted at saska.petrova@manchester.ac.uk.

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Tel: +44 (0) 161 275 2817

Email: seed@manchester.ac.uk

***Climate Change Adaptation Governance in Rural sub-Saharan Africa/
Preparing Local Communities for More Droughts***

CONSENT FORM

If you are happy to participate please complete and sign the consent form below.

Please initial box

1.	I confirm that I have read the attached information sheet on the above project and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.	
2.	I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to any treatment/service.	
3.	I understand that the interview will be audio-recorded.	
4.	I agree to the use of anonymous quotes.	
5.	I am willing to be contacted within the next 10 years for the purposes of a follow-up study.	

I agree to take part in the above project

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of researcher	Date	Signature
_____	_____	_____

**This Project Has Been Approved by the University of Manchester's
Research Ethics Committee**

Políticas Governamentais de Adaptação às Alterações Climáticas em São Tomé e Príncipe / Preparação das Comunidades Locais para Mais Secas

Folheto Informativo do Participante para Membros da Comunidade (entrevistas)
(disponível em Inglês e Português)

Gostaria de o convidar a participar no meu estudo de investigação. O meu nome é Michael Mikulewicz, e sou um estudante de doutoramento em Geografia Humana na Universidade de Manchester, Inglaterra. Este estudo explora os efeitos de um projeto de apoio rural que o Programa das Nações Unidas para o Desenvolvimento (PNUD) vai lançar em breve na sua comunidade. Antes de decidir se pretende participar, é importante perceber porque o estudo está a ser desenvolvido e aquilo que ele envolve. Queira, por favor, familiarizar-se cuidadosamente com a informação aqui explanada e discuti-la com outras pessoas se assim o desejar. Por favor questione-me ou ao Davilson se houver algo que não está claro para si ou se necessitar de mais informação. Tome o tempo necessário para decidir se deseja participar ou não. Agradeço o tempo dispensado para decidir sobre o meu pedido.

Quem irá realizar este estudo?

Michael Mikulewicz, estudante de doutoramento de Geografia Humana na Universidade de Manchester. A primeira coordenadora do Michael é a Dr. Saska Petrova.

Queira, por favor, encontrar a sua informação de contatos no final deste formulário.

Título do Estudo de Investigação

Políticas Governamentais de Adaptação às Alterações Climáticas em São Tomé e Príncipe / Preparação das Comunidades Locais para Mais Secas.

Qual é o objetivo deste estudo de investigação?

Quero ver como o PNUD planeia e implementa o projeto de apoio rural na sua aldeia e qual o efeito que o projeto tem para si e na sua comunidade. Gostaria de responder às seguintes questões: Como é que o PNUD planeia as atividades na sua comunidade? Como é que essas atividades são implementadas? Estarão todas as pessoas da sua comunidade envolvidas de igual forma nesse projeto? O projeto ajuda todas as pessoas da sua comunidade? Se não, porquê? O que podemos fazer para que projetos como este sejam mais justos e benéficos para todos os membros da comunidade? O objetivo mais importante deste estudo de investigação é assegurar que projetos futuros em comunidades semelhantes à sua vão beneficiar todos os residentes dessa comunidade de igual forma e não apenas a alguns.

Porque foi escolhido para participar?

Foi escolhido para participar neste estudo porque a sua comunidade, assim como 29 outras comunidades de São Tomé e Príncipe, está a participar num projeto de apoio rural. Considero que o seu conhecimento sobre a vida e história da sua comunidade irá ajudar significativamente a tornar este estudo de investigação melhor e com mais significado.

O que me irá ser pedido se aceitar participar?

Despendi algum tempo com pessoas que estiveram envolvidas na preparação deste projeto na Etiópia. Estive lá para perceber como os colaboradores do PNUD planearam este projeto e como eles veem os potenciais benefícios do mesmo para si. Agora, gostaria de perceber as suas opiniões sobre o projeto. Gostaria de perceber se e como este projeto incluiu todas as pessoas da sua comunidade. Se não incluiu, então gostaria de explorar os aspetos que o podem tornar melhor. É por isto que as suas opiniões e as dos restantes membros da sua comunidade são tão importantes para o meu estudo de investigação e ficarei bastante agradecido se decidir participar nele.

Gostaria de o convidar a participar numa entrevista conduzida por mim. Durante esta entrevista, vou perguntar a sua opinião sobre diversos tópicos tais como a vida na sua comunidade, clima seco, agricultura e o projeto de apoio rural do PNUD. Fica inteiramente ao seu critério se quer responder às minhas questões; pode optar por dar uma explicação longa e detalhada com exemplos, ou pode optar por uma mais curta ou até mesmo simplesmente recusar-se a responder. Quero que se sinta confortável durante a entrevista e não tenho respostas esperadas às perguntas que lhe colocarei. Por favor, lembre-se de que tem o direito a recusar responder a alguma questão ou até recusar a própria entrevista.

Ainda que eu tenha visitado a sua comunidade de uma forma quase diária desde o início de Março, gostaria de fazer esta entrevista para o questionar sobre especificidades da sua vida e sobre o projeto e dar-lhe uma oportunidade de expressar as suas opiniões – em privado com um intérprete para ter a certeza que eu o estou a entender perfeitamente.

Este estudo de investigação é bastante longo e planeio regressar dentro de alguns anos à sua comunidade para investigar os efeitos de longo-prazo do projeto de apoio rural. Se estiver disposto a ser contactado aquando do meu regresso dentro de alguns anos, por favor marque essa opção na caixa relevante no Formulário de Consentimento abaixo ou simplesmente comunique-me a sua disponibilidade.

O que acontece aos dados que recolhemos?

Vou utilizar a informação que recolher na sua comunidade para escrever uma dissertação (um excerto de texto) por forma a poder tornar-me um Investigador profissional. Mais tarde, poderei utilizar esses dados noutras publicações tais como artigos académicos, livros, relatórios ou artigos de conferências. Não irei partilhar os dados que recolher na sua comunidade com outras pessoas.

Irei certificar-me que os seus dados se mantêm privados. A notas do meu relatório serão mantidas numa caixa fechada ou num depósito fechado e serão destruídas após 2 semanas. Ficheiros electrónicos serão transportados e armazenados em equipamentos protegidos. Depois, toda a informação será enviada para o computador da Universidade por forma a assegurar a sua segurança e que ninguém a descubra.

Gostaria de estudar os efeitos de longo-prazo do projeto de apoio rural na sua comunidade, daí que vá guardar a informação que aqui recolher durante 10 anos. Dado que provavelmente voltarei aqui dentro de alguns anos para aferir as mudanças, vou necessitar da informação que recolher agora para a poder comparar com a informação que recolher posteriormente.

Como está assegurada a confidencialidade?

Toda a informação ficará guardada em local seguro e eu serei a única pessoa com acesso à mesma. Com a sua permissão, a entrevista será gravada utilizando um gravador de voz. Irei destruir a gravação áudio imediatamente após a ter transcrito para o meu relatório. Quaisquer nomes, incluindo o seu e o da sua comunidade, serão mantidos em segredo para assegurar que não podem ser identificados, enquanto participantes, por ninguém que não faz parte do estudo. De fato, irei alterar o seu nome para assegurar que ninguém o reconhece.

Não irei partilhar nenhum detalhe da nossa conversa com ninguém da sua comunidade. Faça isto com bastante seriedade e pode ter a certeza que eu nunca irei falar sobre eles com outros. O meu objetivo é perceber a opinião dos residentes locais e a situação geral de vida da sua comunidade – nada mais.

O que acontece se não quiser participar ou se mudar de ideias?

Fica ao seu critério decidir se quer participar ou não. Se decidir participar, ser-lhe-á entregue esta folha para si. Também lhe vou pedir para me transmitir a sua concordância em participar por forma oral ou escrita – a que preferir mais. Se decidir participar, terá sempre a hipótese de mudar de ideias em qualquer altura sem ter de dar razões e sem qualquer consequência.

Serei pago por participar neste estudo de investigação?

Infelizmente, não tenho disponibilidade para poder pagar pela sua participação neste estudo, dado que tenho um orçamento bastante limitado. Sou um estudante em Inglaterra e, dado que não sou trabalhador do PNUD ou do Governo, não me pagam pelo trabalho que aqui faço.

Qual a duração do estudo de investigação?

Gostaria de o convidar a participar numa entrevista, que durará entre 60 e 90 minutos.

Onde é que o estudo vai ser feito?

Cada entrevista será feita num local à sua escolha (por exemplo em sua casa ou num espaço comunitário). Estará presente um tradutor porque eu não sou fluente na sua língua e não quero perder nada que me queira dizer. Fica ao seu critério se se quer encontrar connosco sozinho ou fazendo-se acompanhar por alguém. Com a sua permissão, irei gravar a entrevista utilizando um gravador de voz e também irei tirar notas. A gravação será destruída depois de a analisar em Inglaterra. Os registos da entrevista serão anónimos, o que significa que ninguém saberá quem você é, e o seu nome nunca será usado em nenhuma parte dos meus relatórios.

Antes de ter chegado à sua comunidade, passei cerca de 3 meses em Addis Ababa, Etiópia, a fazer pesquisa no escritório do PNUD que foi corresponsável pela preparação do projeto de apoio rural na sua comunidade. Aqui em São Tomé, trabalho do escritório do PNUD, mas é importante que perceba que eu não sou um trabalhador oficial do PNUD, não sou pago pelo PNUD e que não tenho uma ligação oficial com eles.

Os resultados deste estudo de investigação vão ser publicados?

O trabalho escrito que resulta deste estudo de investigação vai ser publicado pela Universidade de Manchester. Qualquer pessoa que tenha interesse no tema poderá encontrá-lo e lê-lo. Como mencionei anteriormente, poderei utilizar a informação que recolher durante a minha estadia na sua comunidade para escrever futuramente outras publicações como livros, artigos académicos ou artigos de conferência. Os resultados deste estudo também serão comunicados ao PNUD para os ajudar a planear melhor projetos futuros. É importante que perceba que o seu nome não será mostrado em nenhum lado. Da mesma forma, o nome da sua comunidade nunca será mencionado no relatório.

Quem reviu este estudo de investigação?

O projeto foi revisto pelo Comité de Ética 1 da Universidade de Manchester. O papel deste Comité é assegurar que os investigadores, como eu, não causam dano – emocional ou físico – às pessoas com quem vão falar e passar tempo.

E se acontecer algo de errado?

Se existir algo sobre este estudo de investigação que queira discutir, por favor contate-me para michal.mikulewicz@manchester.ac.uk , +239 998 3561, ou pessoalmente em qualquer altura deste estudo. Poderá contactar o Davilson que prontamente falará comigo.

Se preferir falar diretamente com a minha supervisora (Saska Petrova), por favor contate-a para saska.petrova@manchester.ac.uk em qualquer altura deste estudo.

Se existirem alguns problemas relacionados com este estudo de investigação que prefere não discutir com membros da equipa de pesquisa, por favor contate “Equipa de Integridade e Administração da Investigação” escrevendo para “The Research Governance and Integrity Manager, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL, United Kingdom” ou enviando email para: research.complaints@manchester.ac.uk, ou telefonando para +44 161 275 8093 ou 275 2674.

Contatos para informação adicional

Eu (Michael Mikulewicz, Investigador Principal) posso ser contactado para michal.mikulewicz@manchester.ac.uk ou para +239 998 3561.

Saska Petrova (Primeira Coordenadora) pode ser contactado para saska.petrova@manchester.ac.uk.

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Email: seed@manchester.ac.uk

**Este Projeto Foi Aprovado pelo Comité de Ética de Investigação da
Universidade de Manchester**

Políticas Governamentais de Adaptação às Alterações Climáticas em São Tomé e Príncipe / Preparação das Comunidades Locais para Mais Secas**FORMULÁRIO DE CONSENTIMENTO**

Se gostaria de participar, por favor complete e assine o seguinte formulário de consentimento.

Por favor marque o campo abaixo

1.	Confirmando que li o folheto de informação em anexo sobre o projeto mencionado acima e tive a oportunidade de considerar toda a informação e fazer questões e que obtive respostas satisfatórias a essas questões.	
2.	Percebo que a minha participação neste estudo de investigação é voluntária e que sou livre para desistir a qualquer altura sem ter de dar razões e sem detrimento de qualquer tratamento/serviço.	
3.	Percebo que as entrevistas vão ser alvo de gravação-áudio.	
4.	Concordo com a utilização de citações anónimas.	
5.	Estou disposto a ser contactado dentro dos próximos 10 anos com vista a um estudo de acompanhamento.	

Concordo em fazer parte do projeto descrito acima,

_____ Nome do participante	_____ Data	_____ Assinatura
_____ Nome do investigador	_____ Data	_____ Assinatura
_____	_____	_____

**Este Projeto Foi Aprovado pelo Comité de Ética de Investigação da
Universidade de Manchester**