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Title:

Thwarting adaptation's potential? A critique of resilience and climate-resilient development

Abstract

Over the last two decades, resilience has steadily gained traction in discussions on the theory and practice of adaptation to climate change. The concept is widely considered useful for explaining how coupled social-ecological systems (SESs) resist climate-related stressors or undergo change. At the same time, however, there has been an upswell of critique on resilience and climate-resilient development, stemming most prominently from the quarters of political ecology and geography. This article seeks to contribute to this literature by using the analytical lens of post-politics to critically evaluate resilience and climate-resilient development in a local adaptation context. Four major critiques are lodged against resilience: (1) its inability to sufficiently recognize the large-scale political, economic, and social forces affecting and effecting change, (2) its oversight of the analyzed systems' internal dynamics, (3) the depoliticized, techno-managerial nature of resilience-centered solutions, and (4) the theoretical vagueness of resilience as applied by development actors. The paper presents a grounded critique of the term based on empirical evidence collected through a quasi-ethnography of a climate change adaptation project implemented by the United Nations Development Program (UNDP) and the national government in São Tomé and Príncipe. It is argued that resilience, despite its theoretical attractiveness and growing popularity among donors, continues to dehumanize development and renders adaptation post-political. The article also discusses alternative, more human-centered approaches rooted in vulnerability and climate justice, which offer a more nuanced understanding of climate impacts and the associated challenges that they pose at the local level.

Key words:

adaptation, resilience, vulnerability, climate justice, climate change, São Tomé and Príncipe

1. Introduction

One of the key stipulations of the 2001 Marrakesh Accords adopted at the Seventh Session of the Conference of the Parties (COP7) to the United Nations Framework Convention on Climate Change (UNFCCC) was the recognition of specific climate change adaptation needs of the least developed countries (LDCs). Ever since, LDCs have received financial and technical assistance in producing national adaptation policies and in implementing a growing number of projects to enhance their preparedness for climate impacts. Increasingly, these initiatives have been guided by the concept of “resilience” – a particular approach to fostering adaptation rooted in complex adaptive systems analysis (Marshall, 2013; Ross et al., 2015). However, there has been growing skepticism within the critical quarters of social sciences towards resilience and resilience thinking, not least because of the limited empirical evidence on the effectiveness of this approach at the local level (Bassett and Fogelman, 2013; Cote and Nightingale, 2012; Cundill and Fabricius, 2010; Felli, 2013; Jennings, 2011; Nelson, 2014; Taylor, 2014; Walker and Cooper, 2011).

In this article, I argue for stepping away from the hegemonizing practice of conceptualizing adaptation to climate change in terms of resilience as well as for a concomitant, paradigmatic shift towards approaches that are explicitly human- rather than system-centered. By adopting a theoretical lens of post-politics, I seek to contribute to the critical strand of scholarship that seeks to (re)politicize adaptation to climate change by approaching it as an explicitly contested process wrought with issues of inequality, exploitation, and sometimes violence (Eriksen et al., 2015; Manuel-Navarrete and Pelling, 2015; Mikulewicz, 2018; Nightingale, 2015, 2017; Ribot, 2014; Taylor, 2014). Unlike resilience-based perspectives, this critical body of work tends to conceptualize adaptation as an opportunity for wider societal transformation rather than a set of techno-economic measures to increase resilience, and

recognizes the need for creating new political spaces that can lead to addressing the relational aspects of adaptation at different scales (Manuel-Navarrete and Pelling, 2015; Taylor, 2013). Resilience, according to this view, is insufficient for achieving these goals.

However, despite its theoretical depth, this critique still lacks a strong empirical underpinning, as studies that trace the manifestations and impacts of resilience-based approaches to adaptation in the Global South are limited. Thus, this paper's objective is to contribute to addressing this gap through an empirically grounded analysis of resilience and resilience thinking and to provide insights into whether the aforementioned critique applies to local adaptation contexts in the Global South. To achieve this objective, this research draws on empirical data collected in relation to an adaptation project in São Tomé and Príncipe (STP) funded by the Least Developed Countries Fund (LDCF). The project's goal is to enhance the resilience of rural livelihoods given the anticipated climate risks in the country (INDC, 2015). In terms of paper structure, I first provide a brief theoretical overview of adaptation and resilience. I follow this by discussing the analytical framework of post-politics informing this work, after which I move on to synthesizing the major areas of critique waged against resilience and resilience thinking. After outlining the methodology (a multi-sited, institutional quasi-ethnography) and the context of this study, I relate the four areas critique of resilience to the abovementioned adaptation project as implemented in Liberdade,¹ one of the rural communities participating in this nationwide initiative. Finally, I discuss alternative approaches to adaptation, arguing for a shift away from resilience towards analytical perspectives rooted in vulnerability and climate justice.

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

2. Adaptation, resilience and climate-resilient development

Adaptation *is* development! (...) It's risk-informed, climate-resilient development.

[Steven, UNDP staff member, Addis Ababa, emphasis in original]

Since a broad array of organizations have by now integrated adaptation into development programming (Ayers and Dodman, 2010; OECD, 2012), the term has become quite diluted and there exists no single definition for it. Most academics and practitioners rely on the interpretation of adaptation offered by the Intergovernmental Panel on Climate Change (IPCC) 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 stability of the coupled social-ecological system (SES) is under threat by ‘climatic stimuli.’ Resilience as a theory stems precisely from this approach which has firm roots in ecosystems science and effectively decouples human-nature relations (Castree, 2005; Holling, 1973; Walker and Cooper, 2011). Over the last couple of decades, social analyses of climate change impacts have drawn from these insights on the relationship between humans and their environments by establishing theoretical and methodological links between resilience and other key concepts such as vulnerability, adaptation, and adaptive capacity (Folke, 2006; Gallopín, 2006; Janssen, 2007; Janssen et al., 2006).

While resilience scholars use the concept of SES in an attempt to provide a holistic lens to analyze the relationship between humans and their environments, a resilience thinking approach to studying social phenomena most frequently distinguishes between two separate yet intrinsically connected and co-dependent systems (ecological and social). 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 resilience assert the concept’s high potential to inform climate policy. More specifically, one of the main arguments for mobilizing resilience in this governance context is its focus 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). A recent study has shown that the number of scientific publications on resilience has grown consistently since the term was first used by Holling in 1973 (Janssen, 2007; Xu and Marinova, 2013). The growing prominence of the concept in development policy and practice has led Taylor (2014, p. 53) to refer to it as one of the “holy trinity” of adaptation, alongside adaptive capacity and vulnerability.

The above quote by one of the top UNDP officials responsible for the agency’s adaptation portfolio in Africa exemplifies how resilience has been effectively integrated into sustainable development and adaptation policies and programs. It is perhaps no surprise that in the era of global climate management, resilience has gained significant traction within development policy circles. Since the uncertainty of climate impacts requires societies to become better prepared for the unknown, resilience has been seen as a much-needed theoretical response to describing and understanding change. In addition, rigidly planned interventions have been widely criticized over the last few 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 (Pelling, 2011). Finally, the concept is of

growing importance to donors, including the European Union (EU) and the Global Environment Facility (GEF). The GEF's Scientific and Technical Advisory Panel, for example, goes as far as identifying resilience thinking as critical to meeting the Sustainable Development Goals (SDGs) (O'Connell et al., 2015). This hegemonizing tendency 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 by studies focusing on vulnerability (Brown, 2016). Because of these converging material and discursive trends, adaptation has come to be conceptualized as building resilience more frequently than as decreasing vulnerability, fostering social transformation, promoting social justice, or imagining more radical socio-environmental futures.

3. Post-politics and the critical approaches to resilience

The traction that resilience has gained, and the analytical focus on social-ecological systems that it has popularized, has met with strong critiques from other strands of social science, an effort spearheaded largely but by no means exclusively by political ecologists and geographers (Cote and Nightingale, 2012; Cretney, 2014; Jennings, 2011; MacKinnon and Derickson, 2013; Orlove, 2009; Taylor, 2014; Watts, 2011). They have been quick to challenge the dominant IPCC definition of adaptation and the resulting proliferation of approaches rooted in resilience thinking (Bryant, 2016; Macgregor, 2014; Swyngedouw, 2013; Taylor, 2014). Pelling (2011, p. 21), for instance, 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” (emphasis added). This more normative definition seeks to counter the predominant, apolitical view espoused by

IPCC. The root causes mentioned by Pelling, 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).

Building on these theoretical advancements, a new current of critical adaptation studies has emerged over the last decade or so, which takes an even more political approach to analyzing the effects of how people respond to the impacts of climate change (Eriksen et al., 2015; Mikulewicz, 2018; Nightingale, 2015; O'Brien et al., 2010a; Ribot, 2014; Taylor, 2014). Many scholars within this still 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 creating differential vulnerabilities and adaptation outcomes, which they see as caused by discursive and material inequalities occurring across multiple scales (Eriksen et al., 2015; Marino and Ribot, 2012).

The theoretical lens adopted here stems from these recent theoretical developments and builds upon the insights from the philosophical current of post-politics (Mouffe, 2005; Wilson and Swyngedouw, 2014). Post-politics, rooted in post-foundationalism (Marchart, 2007), is concerned with the gradual evacuation of the political aspect of governing (“the political”) from the public sphere and the latter’s consequent colonization by approaches rooted in techno-managerialism and, more broadly, neoliberalism (Swyngedouw, 2011a). One of the analytical angles offered by this heterogeneous tradition is a Foucauldian interrogation of the hegemonic ontologies that lead to specific framings of societal issues. In the context of climate governance, scholars point to the frequent mobilization of “empty

signifiers” such as ‘climate change policy’ or ‘sustainable policy’ (Swyngedouw, 2010, p. 224), which lead to solutions that are inherently techno-managerial and apolitical. The choice of these remedies is legitimized by the securitization of climate change and the manufacturing of a depoliticizing, urgency-laden ‘adaptive consensus.’ Rather than engaging individuals in the act of governing, however, post-political adaptation of this kind paradoxically excludes them from it under the guise of ‘consultation’ or ‘participation,’ so that in the end “nothing really has to change” (Swyngedouw, 2011b, p. 76). While the near-complete surrender of the climate change issue to engineering and natural sciences has been a frequent subject of works adopting this theoretical perspective (Bassett and Fogelman, 2013; Kenis and Mathijs, 2014; Wilson and Swyngedouw, 2014), post-politics has not been applied to specific adaptation interventions before (but see: Symons, 2014). As it will be demonstrated, resilience-based adaptation readily lends itself to post-political critique.

3.1 Resilience and climate-resilient development: Four areas of critique

Adopting the post-political perspective allows to identify four areas of critique that will guide the discussion that follows: (1) the erasure of the role that large-scale social, economic and political processes play in shaping resilience, (2) the oversight of internal system dynamics (and especially power asymmetries), (3) the depoliticized nature and limited transformational potential of resilience-informed solutions, and (4) the vagueness of the concept and the inconsistency in its application by various development actors. This critique is not to be considered comprehensive and has been selected due to its particular relevance for this study’s context.

First, while resilience is chiefly concerned with the effects of exogenous stimuli on a given social-ecological system, one of the key critiques of the concept is its inability to incorporate

large-scale social processes that inevitably determine how people respond to environmental change. For instance, the differentiated impacts of the neoliberal governance of natural resources on local people's capacity to adapt is the subject of a number of studies in political ecology (see: Brown, 2016; Brown and Lapuyade, 2001; Taylor, 2014; Watts, 2004). In many cases, adaptation projects closely resemble the orthodox approaches to agricultural development from a time long before adaptation and resilience had entered the policy agenda (Ayers and Dodman, 2010; Fankhauser and Schmidt-Traub, 2011; Ireland, 2012). Ireland and McKinnon (2013) use a post-development perspective to trace the strong focus of mainstream adaptation on fostering economic growth back to the political influence of the World Bank and its affiliates. Given the suggested neoliberal grip of current adaptation policies and interventions, more transformational approaches such as material redistribution within the agrarian environment (Pelling, 2011; Taylor, 2014) – let alone political or social transformation – are considered to be out of question, with the societal *status quo* left intact.

Complementing this more materialist angle is a post-structuralist perspective, which suggests another key implication of the hegemony of resilience. In their insightful article on the concept's genealogy, Walker and Cooper (2011, p. 157) accuse resilience 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 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” (2011, p. 88). Resilience is thus mobilized in various contexts to facilitate the creation of resourceful, resilient subjects who, rather than conceiving of changing the conditions of possibility, “must permanently struggle to accommodate [themselves] to the world” (Evans and Reid, 2013, p. 85). Thus, framing

adaptation (and development, in general) as resilience introduces a new socio-environmental reality, which unlike the more positive message of sustainability of the previous decades is marked by the incessant possibility of environmental and economic shocks that can disrupt or destroy human life (Barr and Devine-Wright, 2012). By doing so, resilience-based approaches securitize climate change and create oppressive ecologies of fear, legitimizing the growing control of experts and technocrats proficient in the resilience trade over those deemed too vulnerable to adapt to the impending impacts of climate change on their own (Chaturvedi and Doyle, 2015; Swyngedouw, 2013). Resilience and resilience thinking can thus be seen as a nihilism that works to depoliticize development and deprive local people of their political power and subjectivity (Evans and Reid, 2013; Velicu and Kaika, 2017).

Second, although it has been widely argued that since resilience is focused on the relationship between the coupled social and ecological systems, and the associated impacts of negative stimuli on both, the approach has been agnostic about the complex social dynamics that determine the internal functioning of groups or populations (the ‘social system’). In response to this argument, social resilience has been proposed as an approach that considers the quantity and quality of social networks between different actors across different scales, moving resilience towards more nuanced understandings of how social systems actually work and how their responses to change are determined (Adger, 2003; Cote and Nightingale, 2012; Thomas and Twyman, 2005). Yet, in the context of adaptation to climate change, these considerations are often seen as insufficient, as resilience thinking engages rather scarcely with questions of power and access to resources (Eriksen et al., 2015; Mikulewicz, 2018; Ribot, 2014). Meanwhile, it can be argued that resilience can be relational, where increasing it for some comes at the expense of decreasing it for others, mirroring a similar argument furthered in relation to vulnerability (Barr and Devine-Wright, 2012; Taylor, 2013). As a

result, the oversight of differential access to power and resources, and the resulting inequality, leaves resilience thinking unable to explain the emergence of “winners and losers” of the adaptive processes promoted by development initiatives across the Global South (Adger et al., 2004, 2003; Neumann, 2005). Other scholars go even further, accusing resilience of actively favoring those who already hold power, which severely limits its emancipatory potential (Orlove, 2009).

Even though resilience thinking may be concerned with the way in which change occurs within social-ecological systems, it frequently results in little actual change – another area of the concept’s critique. The dedication to seeing a given population 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 a complex social reality to a list of constituent parts (e.g. the water system, soil system, education system, healthcare system, economy), each with a predictable behavior that a skilled manager can keep in check, assess, and influence. Therefore, relying on resilience when dealing with responses to climate change impacts tends to result in explicitly apolitical solutions rooted in technology and markets, cementing rather than challenging the social, economic and political *status quo* that may be causing vulnerability in the first place (Bassett and Fogelman, 2013; Gillard et al., 2016). In this sense, resilience becomes synonymous to ‘coping’ (Pelling, 2011). 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 more likely be incorporated into complex adaptive systems models and as such normalized, thus making resilience part of the problem rather than a solution (also see: Jennings, 2011; Manuel-Navarrete, 2010).

The fourth and final critique relates to, as for many other ‘buzzwords’ in social science, the vagueness and inconsistency in the use 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 lack of conceptual clarity on the relationship between vulnerability and resilience, often understood rather simplistically 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, however, Brown (2016) distinguishes between descriptive and normative approaches to resilience, the first originating in ecology and focusing on resilience theory itself, and the other commonly used as an unquestionably desirable objective of development 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 unalloyed good for promoting sustainable development (Brown, 2016; UNDP, 2011; World Bank, 2009).

Indeed, resilience-based reports abound in this context, and concern issues as diverse as fisheries (EDF, 2018), urban development (Bahadur et al., 2016), human development (UNDP, 2014a), energy (World Bank, 2015), institutional development (Langeland et al., 2016), green growth (UNEP et al., 2012), and climate risks (United Nations, 2016). Interestingly, the internalization of resilience thinking by major development agencies resembles a similar practice by the World Bank with regards to social capital, sustainability, and sustainable development in the late 20th and early 21st centuries. This was also widely criticized by political ecologists and geographers for turning what were initially considered innovative and potentially transformative concepts into mere drivers of neoliberal policies, interventions, and subjectivities (Fine, 2003; Fine and Lapavitsas, 2004; Ireland and McKinnon, 2013; McCarthy, 2014; Nelson, 2014).

While this necessarily rudimentary overview of various critiques of resilience demonstrates the field's intellectual diversity, much of this work is purely theoretical. The remaining part of the article will provide an evidence-based analysis of how resilience manifests itself in practice and the effects it translates into at the local level.

4. Research methods and process

The methodological approach of this study is a multi-sited, institutional quasi-ethnography, which merges a number of ethnographic traditions (Coleman and Hellermann 2013; Marcus 1995; Billo and Mountz 2016; Gellner and Hirsch 2001). Research was conducted in multiple sites in order to track the use of traveling concepts such as adaptation and resilience by different actors at different scales (Weisser et al., 2014). While institutional ethnography normally designates a study of organizations, this work adopts its more constructivist interpretation as an interrogation of the social institutions that govern people's behaviors, beliefs, and actions, and of the resulting processes of subjugation and subordination (Billo and Mountz, 2016). Finally, the constraints related to access (limited availability of certain officials and information, particularly within the Santomean government and UNDP), time (a total of seven months split across multiple sites) and language (some key interviewees did not speak English and translation was often required) associated with this study disqualify it from being considered a typical ethnography.

The ethnographically informed approach was chosen for two interrelated reasons. First, the ability of ethnographic research to detect and address the unevenness of institutional practices, which may remain concealed to more quantitative studies, seemed particularly

applicable to investigating how the adaptation project is implemented in practice. Second, the emancipatory focus that ethnography acquired following its ‘cultural turn’ (Cloke, 2004; Crang and Cook, 2007) is in line with the study’s initial hypothesis that local people and their needs would likely be sidelined by the broader processes guiding adaptation (see: Ferguson, 1994; Mosse, 2005). In general, this methodological choice mirrors the broadly held Marxist view that research, unless political, holds little social relevance and that it should have the discursive and material emancipation of the marginalized at its center (Cloke et al., 2004; Hammersley and Atkinson, 2007).

[Figure 1 near here]

In terms of the research process, fieldwork involved extended stays of four months in Addis Ababa, Ethiopia and of three months in STP (see Figure 1). Access to the UNDP Regional Service Center in Addis Ababa (providing technical guidance on the project) and the UNDP Country Office in São Tomé (co-managing national and local implementation) was obtained through undertaking a part-time climate adaptation internship at both offices. In addition, fieldwork in STP entailed a series of extended visits to Liberdade (between two and six hours, three times a week minimum), which involved informal conversations, “deep hanging out,” transect walks, and participatory mapping (Cloke, 2004; Hammersley and Atkinson, 2007). Liberdade was chosen due to its proximity to the capital (about 30 minutes by minibus) and the presence of a UNDP gatekeeper with personal ties to the village who facilitated entry during the first visit.

Throughout the seven months of fieldwork, 36 in-depth, semi-structured expert interviews were conducted with development professionals from UNDP as well as other aid agencies, non-governmental organizations, and government entities (see Table 1). Interviewees were

selected through a combination of Internet research and snowball sampling. Given the delicate nature of some topics (e.g. unequal community relations), interviews were chosen over focus groups to ensure that an appropriate level of discretion could be assured (Dexter, 2006; Winkelman and Halifax, 2007). Moreover, 20 in-depth, semi-structured interviews were conducted with an equal number of men and women residing in Liberdade. These participants were identified jointly with another local gatekeeper residing in the village to ensure appropriate representation of different groups in the sample. The primary data was supplemented by secondary sources, mainly project-related documents and government and UN publications on climate change in the country. Upon collection, the entire dataset (interview transcripts, field notes, and secondary sources) was uploaded to NVivo software (2015) for analysis.

[Table 1 near here]

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, analysis was guided by a mixed inductive-deductive approach, which involves defining the conceptual framework before fieldwork without excessively rigid boundaries (Guest et al., 2012). An exploratory reading of data in search of general themes was followed by the development of codes identified through repetitive, in-depth reading of interview transcripts, field notes, and secondary sources. This was supplemented by auxiliary methods to coding 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). 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 leadership conflict in Liberdade as depicted by community members and project staff members to ensure data did not contain any (unrecognized) factually incorrect information or was not overly skewed in favor of a specific point of view.

5. Context: The country, the project and the people

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, 2014b)

STP is an impoverished nation in the Gulf of Guinea (see Figure 2), with a small population of over 190,000 (World Bank, 2017). As a small island developing state (SIDS), the country is considered to be extremely vulnerable to the impacts of climate change both by the United Nations and the national government (NAPA, 2006; UNFCCC, 2005). For instance, the advancing sea levels are threatening to undermine the livelihoods of coastal communities where over 80% of the population resides (NAPA, 2006). Moreover, due to widespread reliance of livelihoods on rain-fed agriculture, the growing incidence of droughts (as for instance in late 2015), has been a serious issue for smallholders, particularly in Lobata and Lembá – the country’s driest and poorest districts located in the north of São Tomé Island (UNDP, 2014b). The adaptation project investigated here is one of the institutional responses to the adaptation needs given these anticipated impacts of climate change in the country. The intervention is spearheaded by the Ministry of Agriculture and Rural Development (MoARD) and implemented in partnership with UNDP (GEF, 2016). As the quote at the beginning of this section suggests, the project aims to increase the resilience of rural livelihoods to climate

impacts in 30 local communities in six of the country's districts. This is to be achieved by increasing the capacity of national institutions in the context of climate risk management, introducing climate-proof infrastructure, and adopting resilient livelihood strategies at the community level (UNDP, 2014b). The program period is from 2014 to 2017, although as of the time of writing the project had approximately one year of delay.

[Figure 2 near here]

Liberdade – one of the five rural communities in Lobata participating in the project – is home to around 360 people. Most residents are subsistence farmers or petty producers, cultivating maize, sugarcane, tomatoes, beans, and chili peppers, among other crops, on plots averaging around 1.5 to two hectares. There is a decrepit colonial system of irrigation canals in the community, access to which is restricted to a few families. Much like the rest of the district, Liberdade struggles with recurrent and prolonging drought episodes, poor soil quality due to erosion, and an infestation of the invasive African cotton leafworm (*spodoptera littoralis*) decimating local maize crops (CATAP, 2016). These compounding issues significantly reduce household incomes and pose a serious threat to food security in a country where hunger has been a largely unknown phenomenon (Seibert, 2006). Poor road infrastructure, the absence of childcare services, and the lack of access to sanitation, health services, potable water, reliable irrigation or proper housing are among other challenges for human development in Liberdade. The community saw three consultation events take place in the early stage of the adaptation project. However, at the time of fieldwork, no project activities had yet started.

6. Cultivating post-political adaptation: Evidence from São Tomé and Príncipe

The following section relates the collected data to the four areas of critique outlined earlier and reveals how resilience and resilience thinking contribute to rendering adaptation in STP an explicitly post-political enterprise.

6.1 Ignoring broader structural forces: Excising underdevelopment from the picture

[F]rankly, you're wasting your time talking about resiliency. It's actually now becoming an obstacle to you seeing the real problem and dealing with the real problem.

[Colin, NGO staff member, Addis Ababa]

Any discussion on the vulnerability of STP and its residents to climate change impacts must acknowledge the colonial history of the country and the more recent implications of neoliberal policies for its development. As the first cash crop colony of a European power (Portugal), the country was subjected to one of the longest (1493-1975) colonial experiences in modern history (Seibert, 2006). The influence of economic and political dependence on Portugal is still visible today, with the bulk of imports arriving from the former metropole and the general public viewing Portugal as an aspirational development model (Seibert, 2006). Despite the centuries-long economic, social, and cultural imprint of colonialism on the nation, a more abrupt change came not long after independence. STP, like many other newly independent African states, struggled with the balance of payments and international debt in the late 1980s, and in consequence was subject to a series of structural adjustment policies spearheaded by the International Monetary Fund (IMF) (Seibert, 2006). One of the flagship initiatives in this context was the effective privatization of agriculture, whereby state-owned plantations – considered inefficient and unprofitable – would be closed, with farmland distributed to their former laborers through lifelong leases (Seibert, 2006). However, the

creation of a class of rural smallholders was not accompanied by a functional agricultural extension service or any kind of meaningful investment. The retreat of the state from the countryside is an issue widely bemoaned by Liberdade residents to this day:

I asked [João] what the state did last year in face of the crop failure. He said they had done nothing. In general, he believes that they don't get enough support from the state.

[field notes, 15 March 2016, STP]

Combined with the departure of Portuguese capital, technology and skilled labor post-independence, the rollback of state services forced the laborers-turned-smallholders to manage on their own in an increasingly liberalizing domestic and international market, with limited success (Seibert, 2006).

The project design fails to address or at least acknowledge the historical and economic factors underlying the persistent underdevelopment of STP. As the quote at the beginning of this section suggests, mobilizing the concept of resilience clouds the structural nature of social and economic issues in Africa. What is more, the project itself is arguably inspired by the same neoliberal approach to development that has entrenched much of the continent, including most Santomeans, in a chronic position of economic precarity (Rodney, 2012; Taylor, 2016). The diagnosis reached by UNDP and state managers excises these structural problems from the resilience formula, and instead presents the national agricultural system as unable to absorb the negative impacts of climate change, and thus as the main culprit behind the country's underdevelopment. To legitimize this narrow, techno-managerial problematization of STP's poverty and vulnerability, the project discursively securitizes

climate change and, as a remedy, seeks to arm its beneficiaries with a neoliberal subjectivity considered necessary for facing the impacts of climate change.

Analysis of project documents, interviews, and field notes reveals how this process occurs. Out of 34 development professionals interviewed on the topic, only one did not see climate change as an important challenge for the country. Nineteen of the remaining 33 expressed varying degrees of urgency on the issue. On the extreme end of this spectrum are apocalyptic narratives of climate change:

I just see it as a matter of life and death. (...) [I]f 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 staff member, STP]

These views are further corroborated by various government documents (First Communication, 2004; INDC, 2015; NAPA, 2006; Second Communication, 2012). For instance, the First Communication (2004, p. 4) creates a narrative of a country “put in direct danger of global warming through which [it] risks losing more than half of its socio-economic infrastructure,” and refers to Africa as the “biggest victim” of climate change.

In parallel, the project promotes a discursively violent adaptation, which seeks to create resilient subjects capable of facing the imminent challenges related to sea-level rise, droughts, and floods (Chandler and Reid, 2016). During consultation meetings, project staff securitize climate change in the villages, painting a grim picture of crop failures that are certain to occur if smallholders do not start to think of themselves as entrepreneurs, conceptualize their livelihoods in terms of climate resilience, and follow the technical advice provided. In other words, they seek to create the kind of adaptive consensus mentioned in Section 3. The interviewed development professionals listed changes in food habits, increased access to

markets, and livelihood diversification as ways in which community resilience could be achieved. The resilient subjects they envision are creative, entrepreneurial, but at the same time obedient – a neoliberal archetype manufactured in total isolation from the broader political economy of STP’s underdevelopment and vulnerability.

6.2 Internal system dynamics: Overlooking the socio-economic and political inequalities in Liberdade

While project staff and documents focus mainly on promoting “community resilience,” research conducted at the village level supports the theoretical concerns about the relational nature of resilience and the differentiated levels of capacity to benefit from external interventions. The internal stratification of Liberdade involving issues of political, spatial, gender, and economic inequality has a fundamental impact on how individuals and families participate in the initiative on the one hand, and how its benefits are likely to be distributed across the community during and after implementation, on the other.

First, despite being aware of it, project staff ignored the political crisis unfolding in Liberdade during the early stage of intervention, which had the president of the community and the vast majority of residents entrenched in a paralyzing standoff. Residents spoke at length about the lack of meetings or any kind of collective activities at the community level. Moreover, they suggested that the president often hijacked development initiatives in the village to his own benefit:

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.

[Samuel, adult resident of Liberdade]

This has discouraged many community residents from actively participating in the project, which risks benefitting only the narrow, privileged group close to the local leader.

Another aspect of community life that the project fails to take into consideration is the spatial inequality of the village. Being located downstream of the village center (*quintal*), the residents of peripheral Liberdade (*abaixo*) struggle with having limited access to the water from irrigation canals compared to those living upstream (see Figure 3). One reason for this is that downstream canals receive less maintenance, meaning that water frequently fails to reach the final sections of the system. This is tied to a related issue of *abaixo* residents not being sufficiently involved in community-level decision-making. Interviewees reported periods as long as two weeks when access to canal water would remain restricted in crucial times of drought. These issues are not entirely limited to *abaixo*, as one elderly female resident, despite residing in the *quintal*, reported having been physically attacked by two men when trying to collect water from one of the canals near their fields. These considerations, however, have been entirely ignored by the project, which imagines Liberdade and the other 29 participating villages as spatially and socially uniform populations units where standardized solutions will bring about community-wide climate resilience.

[Figure 3 near here]

Third, the focus on community resilience ignores the gendered nature of residents' involvement in the project and of their adaptation needs. In Liberdade, the division of labor and the related power differentials between men and women are generally not conducive to the latter's participation in meetings or institutions created for the purposes of the project:

[S]ometimes, 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.

[Nicoleta, young adult resident of Liberdade]

In addition, semi-structured interviews in Liberdade have revealed that men and women tend to identify different measures for increasing their perceived resilience, as shown in Figure 4. However, the project's masculinist insistence on agricultural productivity relies on a simplified understanding of community life, whereby increased profits of mostly male farmers will reach women indirectly through higher household incomes. Critical feminist scholars have indicated that this approach does not always work, and in some cases may even further the economic marginalization of female household members, a process already being exacerbated by the recurring negative climate impacts (Sultana, 2014; Tschakert and Machado, 2012). In Liberdade, this is likely to take form of women having to increasingly rely on the material help from their informal partners (concubinage being widely practiced in STP) or male family members (Seibert, 2006), further contributing to local gender inequality.

[Figure 4 near here]

Finally, while the residents of Liberdade, when asked about the poorest community members, invariably respond with "We are all poor here," the village is mired with conspicuous economic stratification. Due to the decreasing financial viability of farming caused by expensive inputs and low market prices, many residents have resorted to agricultural labor – a livelihood unsurprisingly resented in a former colony with a long and stinging history of slavery and indentured labor (Seibert, 2006). Young people, who find it increasingly difficult to secure farmland from the state, are particularly likely to enter unequal labor relations with

more affluent farmers (including absentee owners of which there are over a dozen), particularly after the first rains. There is at least one confirmed case of land squatting, as well. In addition, women frequently offer to do their wealthier neighbors' laundry for a small fee, washing clothes being one of the most time-consuming household tasks in the village. Fieldwork in Liberdade demonstrated that the community is rife with exploitative labor relations of this kind.

The resilience-centered approach taken by the initiative does not account for the internal inequalities outlined above. To use resilience language, the social system of Liberdade along with its relationship with the surrounding ecosystem – itself deeply complex itself – remains completely unanalyzed and unaddressed. The result of this is likely to be a project that disproportionately benefits the political elite (the president and his few allies), men, and those living in the *quintal* – in other words, the local “winners” of adaptation (Adger et al., 2004). Therefore, in this specific context, it is highly problematic to speak of increasing “community resilience” and more appropriate to foreground its relational nature, instead (Barr and Devine-Wright, 2012; Taylor, 2013).

6.3 Depoliticized solutions: The project's commitment to techno-managerialism

Post-political approaches to environmental issues, including climate change impacts, are characterized by depoliticized and standardized measures rooted in technical expertise, technology, institutionalism, and the free market (Mosse, 2001; Swyngedouw, 2011c). As mentioned above, the techno-managerial nature of this particular intervention leads to a specific problematization of local adaptation challenges in terms of rural livelihoods' insufficient resilience to climate impacts. This heuristic, descendent from hazards research

and ecology, creates an illusion of an unbalanced human-nature system which, due to its high complexity, requires careful intervention by experts (e.g. economists, hydrologists, engineers, agronomists) in order to either secure or regain a state of resilience (Castree, 2005; Luke, 1999; Swyngedouw, 2013; Taylor, 2014). In this case, the Santomean population's insufficient resilience to climate change impacts is associated with the country's low agricultural outputs caused by an agricultural system thrown out of balance by a changing climate – an issue bound to be exacerbated by future alterations in the rain regime and rising sea levels.

The project seeks to address three types of resilience identified by Sovacool et al. (2012) in their study on LDCF projects in South East Asia: institutional, infrastructural, and community-based. This similarity to interventions taking place in entirely different institutional, economic and cultural contexts reveals the standardized nature of resilience-based initiatives supported by the LDCF. Mirroring Sovacool et al.'s typology, the project is thus subdivided into three main components (see Table 2), which involve a set of explicitly technological and institutional corrective measures aimed at bringing the agricultural system up to the level of resilience required. The first component aims to provide non-material support through technical training and education, predominantly to national institutions. The second component focuses on infrastructural resilience at the local level. It proposes to introduce small-scale community-managed technologies to manage flood, erosion, and droughts, and to set up community-level safety nets and innovations such as farmers' associations, food cooperatives, cereal banks, or fish market stands that use solar freezers to extend the shelf life of seafood. The final component recommends establishing publically elected district- and village-level climate change associations ('platforms') to create annual and multi-year adaptation plans, allowing members to identify local vulnerabilities and to

plan the implementation of selected adaptation measures. In addition, each district is to see the establishment of a rural product processing center (most likely to be managed by the beneficiaries themselves), which will focus on specific value-adding activities, such as beekeeping or liquor production. Beneficiaries are also to obtain assistance in developing marketing strategies for their new products (UNDP, 2014b). Therefore, resilience is to be achieved by increasing agricultural productivity and personal incomes through the commercialization and market integration of local agricultural production.

[Table 2 near here]

However, while food security in STP may be in jeopardy in the long term, the primary understanding of community resilience as the resilience of its agricultural system constitutes a risky leap of faith by the project, especially since it is not how local people describe their own vulnerabilities to climate impacts. Instead, they would prefer new housing, access to potable water, and a new road leading to their community over solar freezers, training in marketing techniques, and farmer field schools as means to enhance their ability to respond to droughts. However, despite a number of consultative events, their views have been sidelined by the project's narrow focus on increasing agricultural productivity.

The project is thus inspired by the antiquated “trickle-down” approach to economic development, which has been undermined by the IMF, its former champion, itself (Dabla-Norris et al., 2015). The consequent insistence of the project on the commercialization of agriculture, livelihood diversification, and the agrarian environment's integration with the national economy can be interpreted as a drive to open up new markets for both domestic and foreign capital accumulation (Felli, 2013; Jennings, 2011; Taylor, 2014). Rather than

promoting human-centered adaptation, the sole goal of the project is to achieve “liberal resilience” of the nation’s vulnerable agricultural system through cosmetic and decidedly non-invasive measures aimed at increasing its gross domestic product (GDP) (Brown, 2016).

These resilience-based problematizations of climate impacts effectively silence, if not outright downplay, the ‘messy’ and highly political elements of social life. The techno-managerial focus of the project manifested through its neoliberal insistence on agricultural resilience and productivity has the ultimate result of rendering adaptation post-political. By delegating the search for objective, replicable, and measurable strategies to avert the climate crisis to technicians and managers at UNDP and MoARD, the project thwarts the transformative potential of adaptation and reduces it to mere resilience (O’Brien, 2012; Pelling, 2011; Swyngedouw, 2010).

6.4 Theoretical vagueness of resilience: What does ‘resilient’ mean?

The final area of critique of resilience rests on the premise that the term itself is too vague and frequently too poorly understood by those who offer to deliver it to local people. This concern holds relevance in the context of the adaptation project in STP. During one of the internal meetings, UNDP’s top representative in the country called an impromptu brainstorming session with the project staff:

He brought some materials to be distributed among everyone. These materials included questions on current issues the UNDP is struggling with, including how to ensure long-term resilience (...). He was actually waiting for somebody to start answering these questions, but the room was very silent.

[field notes, 28 February 2016)

Beyond a universal understanding that it is something desirable, staff members' lack of clarity on what resilience is and how one can achieve it is mirrored in interviews with other development professionals who tended to use 'resilience' and 'resilient' as indisputably positive concepts when discussing development and adaptation. Of the 36 interviewed individuals, 16 used resilience in this manner, with only one providing critical reflections on the term. Similarly, participants tended to favor for the word 'resilient' as a generic yet positive qualifier, as in this case when describing hypothetical fishermen adapted to a new climate reality:

[Y]ou need an alternative that will allow them to be resilient during that period [when] they cannot, you know, go fishing and so on.

[Maurice, project staff member, STP]

Thus, economies, communities, livelihoods, and individuals are to be made 'resilient' to climate impacts. However, nowhere in the 82-page main project document are terms 'resilience' or 'resilient' theorized or even defined, despite being used a total of 162 times (UNDP, 2014b). The absence of any serious consideration of the concept is surprising given the fact that both the project's name and objective have resilience at their core. Moreover, betraying the project's theoretical weakness are its stated outcome indicators. Rather than attempting to actually measure resilience, the project will gauge its success through a combination of seven tenuously related indices outlined in Table 3. This somewhat arbitrary selection of outcome indicators only adds to the lack of clarity on the project's approach to resilience.

[Table 3 near here]

Development professionals' understandings of resilience, combined with its haphazard use within project documentation, suggests that the term is simply considered synonymous to 'preparedness' or 'readiness.' Conceptualized in this way, resilience becomes an empty signifier that does not offer much in terms of pathways for actually guiding or informing social change. Rather, it is used to describe a theoretically vague, aspirational state for STP's agricultural system or its residents. Thus, the government and UNDP use resilience in a normative rather than a theoretical or descriptive manner to construct a positive framing of their intervention in STP (Brown, 2016). The concept was introduced without much conceptual rigor, perhaps to respond to its growing popularity among donors, in this case the GEF – the operating entity of the LDCF (UNFCCC, 2017).

Similarly, the concept is entirely extraneous to the residents of Liberdade who seldom imagine their daily struggles in terms of insufficient resilience or even climate change impacts, despite the project's explicit expectation that they do so (CADR, 2015). Rather, when asked, they identify more practical challenges related to various professional or household activities, which managers and technicians generally consider irrelevant to adaptation and thus outside the scope of the project. The silencing of local people's voices is yet another by-product of the rapidly hegemonizing, post-political discourse of resilience within the development industry, which – as abundant critical research has shown – has historically failed to successfully incorporate local knowledge and perspectives into its programming (Boezeman et al., 2014; Cooke and Kothari, 2001; Dodman and Mitlin, 2013; Mosse, 2005).

7. Beyond resilience?

A valid question at this point of the discussion is whether the problem lies in resilience and resilience theory itself, or rather in the fact that development agents adopt the concept to further their neoliberal agendas. If the Santomean government and UNDP do not engage theoretically with resilience and instead reduce it to a positive descriptor, then perhaps it is inappropriate to criticize the theory itself. However, it could be argued that resilience poses another serious problem. Despite the tremendous intellectual effort to ‘humanize’ resilience and make it applicable to social contexts, the theory still lacks in terms of explanatory potential for the broader structural forces shaping societies on the one hand, and socio-political complexity, on the other. Brown (2016) has attempted to address this in her recent book, in which she aims to integrate resilience into a political ecological approach by putting social and political issues at the center stage. Similarly, in a theoretical attempt to address the apolitical shortcomings of resilience thinking, Marin et al. (2018) introduce the concept of ‘equitable resilience’ and complement resilience thinking with the themes of subjectivities, inclusion, cross-scale interactions, and transformation which, they suggest, could lead to more socially just social-ecological systems. Finally, a recent contribution by Hirons et al. (2018) seeks to dissolve the aforementioned nature-society dualism by introducing a ‘biocultural’ framework examining livelihood practices, institutions, knowledge and beliefs.

One could argue that these attempts stem from the intrinsic ‘system-centeredness’ of resilience, which resembles the sector-based approach that has dominated development policy and practice for decades and failed to sufficiently consider the human dimension of issues such as poverty or vulnerability (Wachsmuth, 2015). Despite the copious application of resilience and its derivative word forms in describing people and their surroundings, resilience should not be considered a human-centered approach to development. While it needs to be recognized that the term has evolved considerably since its first coherent

theorization by Holling (1973), it continues to prioritize impractically rigid systems-thinking in its analytical search for local solutions. While resilience is highly attractive in theoretical terms (see, for instance, the concepts of panarchy and adaptive cycle), describing the components of social systems, let alone asserting how to manipulate them to achieve specific outcomes, has proven to be exceptionally difficult given the complexity and inequality embedded within social relations across multiple scales.

Despite the efforts to humanize resilience mentioned above, I suggest that adaptation theory and practice would benefit from a more prominent role of explicitly human-centered perspectives. One alternative to resilience-oriented analyses would be a renewed focus on people rather than the systems of which they are described as forming part. In the specific context of development programming, vulnerability-centered approaches can help politicize adaptation to the extent that they allow to foreground the needs of the most marginalized people – an analytical focus that mainstream conceptions of resilience certainly do not offer. People are vulnerable to climate change impacts because they cannot influence decisions affecting their lives or because they are deprived, deliberately or not, of the material means to better their livelihoods – whether by their fellow community members or external actors (or indeed, both). Questioning the root causes of vulnerability, then, becomes essential for ensuring that no individual is left behind amid the formidable global effort that adaptation assistance is becoming (Ribot, 2014). Asking *why* certain people are more vulnerable than others turns any investigation of adaptation pathways into an explicitly political analysis, as adaptation should be understood as an uneven political process influenced by differentiated access to power and resources (with a recognition that the two are intrinsically related) (Eriksen et al., 2015). The body of work on vulnerability can offer this much-needed analytical frame.

However, it needs to be noted that the vulnerability approach does not come without significant pitfalls (Chandler and Reid, 2016; Evans and Reid, 2013). It tends to adopt a more negative frame which focuses on ‘deficiencies’ (deficient income, deficient assets, deficient level of education, deficient power), which if abused can result in a vulnerabilizing discourse on those affected by climate change impacts. Eco-feminists, for instance, have pointed out how this process occurs in relation to women in developing countries, who are often represented as particularly vulnerable to climatic stress (Agostino and Lizarde, 2012; Gaard, 2015; Resurrección, 2013). Moreover, as a technical term, vulnerability is equally likely to be hijacked by large development agents to pursue their particular agendas. While adopting (or in the case of some organizations returning to) a focus on vulnerability would indeed steer attention away from systems thinking towards social issues and perhaps even social justice, the development sector has shown a formidable capability of turning potentially emancipatory terms into mere cogs of the post-political development machine.

An arguably more promising “interpretative frame” through which to critically reflect on adaptation is offered by climate justice (Goodman, 2009, p. 509). As a highly diverse and multidisciplinary approach that merges climate science with social justice, climate justice approaches climate change from an explicitly political angle underpinned by considerations of equity or fairness (Chatterton et al., 2013; Schlosberg and Collins, 2014). The field is characterized by an irrevocable, normative commitment to those most affected by climate change, recognizing the triple injustice whereby the people who have contributed to climate change the least will face its most adverse impacts while having the fewest resources to adapt (Adger et al., 2006; Goodman, 2009; Shue, 2014; Thorp, 2014). In other words, climate justice offers an avenue for theoretically and practically contesting the depoliticized, techno-

managerial approaches to adaptation (including those centered on resilience), and to understand the root causes of climate change (e.g. predatory industrial capitalism) as well as its impacts (i.e. their inherent complexity and unevenness) in a more nuanced manner (Meikle et al., 2016). It also questions the anthropocentrism of the nature-society dualism that characterizes techno-managerial approaches to adaptation by calling for a more holistic understanding of the relationship between humans and the non-human world (sometimes conveyed through the concept of Mother Earth) (Meikle et al., 2016). Thus, while climate justice is concerned with the wellbeing and prosperity of the most marginalized men, women and children, it does not restrict its focus to humans and recognizes the importance of ensuring the sustainability of the non-human world as an inherent part of climate justice.

In this context, approaches rooted in recognition, procedural and distributive justice, intergenerational equity, inter-species justice, urban justice, human rights, gender equity, climate ethics, the right to development, and a range of newly emerging ones offer an explicitly progressive and egalitarian lens through which to study climate issues across time and space. Importantly, climate justice has been of immediate interest to geographers. The discipline has started to interrogate both spatially and temporally the socio-environmental processes within which the warming of the atmosphere is embedded on the one hand, and on the other – the cross-scalar connections between activities that seek to disrupt the current political and economic system that has destabilized the global climate in the first place (Bond, 2012; Burnham et al., 2013; Chaturvedi and Doyle, 2015; Fisher, 2015; Okereke, 2006).

While – similarly to vulnerability – climate justice has started to attract some critique, particularly due to its perceived lack of traction in policy circles and what is seen as its own

conceptual incoherence (Jenkins, 2018) – it does provide a social-justice-based framing of climate change that has been relatively peripheral in the current practice of development and adaptation. Moreover, having an anti-establishment pedigree (Schlosberg and Collins, 2014), climate justice is more immune to hijacking by powerful development actors. Organizations such as the World Bank or UNDP would likely encounter public opposition to unilaterally adopting a concept with a social movement history compared to resilience, sustainable development, social capital, or even vulnerability, none of which can be said to have originated from the grassroots. Crucially, climate justice can also offer a mobilizing call for resisting hegemonic, post-political discourses and practices of development and adaptation (O’Brien et al., 2010b).

The four areas of critique of resilience discussed above in relation to the adaptation project in STP present a range of future research directions. Given the already mentioned theoretical breadth of these critical perspectives, there is a need for more empirical evidence to reveal how resilience thinking manifests itself materially and discursively in developing country contexts. This particular study was carried out at both institutional and local-community levels and was informed by an ethnographic approach. Particularly promising methods in this context include action research and ethnography (rather than quasi-ethnography). However, more orthodox variations of qualitatively and quantitatively informed studies conducted at or across different scales can also shed light on the relationship between resilience and adaptation. New research should build on the emerging body of critical work on resilience and investigate issues such as the discursive use of the term in the context of climate change, and the genealogy and long-term effects of policies and projects inspired by the concept. Studying adaptation through the two suggested lenses of vulnerability and climate justice can rely on constructivist approaches rooted in, for example, subjectivity, authority, and

knowledge, which seek to explain and address power differentials at the discursive level (Eriksen et al., 2015; Manuel-Navarrete and Pelling, 2015; Velicu and Kaika, 2017), or more materialist, political economic ones stressing access to material resources (Felli, 2013; Taylor, 2014; Wong, 2009).

What does need to be ensured, however, is that critical inquiries of adaptation and resilience do not end up replicating development's own mistakes and marginalizing those who are to benefit from their very findings. Empirical research should afford local people an opportunity to make their voices heard – something that in today's development era has come to be seen as a privilege rather than a right. However, critical adaptation and resilience research of this kind is relatively rare, with positivist approaches still dominating adaptation studies (Bassett and Fogelman, 2013). Consequently, despite the high level of importance accorded to climate change adaptation by researchers and practitioners alike, there still exists limited evidence on the effects of adaptation interventions informed by critical theory. One reason for this is the amount of time required to conduct such research, where long-term effects of interventions often remain under-investigated. In fact, fieldwork conducted for the purposes of this study occurred before the launch of any major activities in Liberdade due to an unanticipated delay in the project's rollout.

At the level of praxis, a much-needed transformation of thinking about adaptation and development must take place, particularly in the offices of aid organizations and other development actors (Ireland and McKinnon, 2013). At the local level, a good start would be to delegate more decision-making powers and project-derived benefits to marginalized groups or individuals, and to shift the focus of adaptation projects away from approaches rooted in "liberal resilience" towards those that explicitly seek equitable adaptation outcomes

(Adger et al., 2006; Brown, 2016; Hughes, 2013; Meikle et al., 2016). Importantly, this should not involve a simplistic reversal of decision-making powers between the managers and the managed, which could result in further marginalization and oppression rather than universal emancipation (Freire, 1970). Rather, what is needed is a more equitable, democratic, and co-productive political arrangement – the return of ‘the political’ – where all the parties involved are able to openly and genuinely disagree and advocate for their interests outside of the reductive, post-political frame of resilience understood as increased productivity or incomes. Relatedly, local knowledge about and localized solutions to adaptive challenges – which often fall outside the scope of what development actors understand as adaptation or resilience (see: Magrath, 2010) – should receive equal attention to the knowledge and solutions proposed by consultants and development managers (Ireland and McKinnon, 2013).

However, the more systemic challenges to how adaptation is funded should also be recognized. Development programming is extremely rigid, and often does not allow key organizations such as UNDP the flexibility that is often indispensable when ‘doing adaptation.’ Indeed, the fetishization of transparency and accountability in the development sector that leads to this inflexibility should be relaxed, a change that needs to start with the largest donors such as the World Bank and the EU. In the case of the adaptation project, its logical framework and major components had been established by officials in Addis Ababa and São Tomé long before the first consultation meeting in Liberdade took place. However, once funding is approved, the GEF does not allow for any considerable changes to project components, outcomes, or sometimes even outputs. Unless project funding and management structures are reversed to prioritize adaptation interventions’ local acceptance and legitimacy – a shift to ‘human-centeredness’ supported by climate justice – such projects will likely

amount to post-political apparitions devoid of any transformative potential for local lives and livelihoods.

8. Conclusion

This paper sought to empirically ground the critique waged against resilience and climate-resilient development by discussing how these highly popular yet contested concepts play out in a local adaptation context in the Global South. Using the analytical framework of post-politics allowed it to lay bare the dominance of resilience when imagining and ‘doing’ adaptation to climate change in STP, and the consequent implications of its growing hegemony within development circles. In aggregate, evidence presented here demonstrates that societies may be even more complex than the complex adaptive systems theory itself seems to suggest. In fact, through its reliance on theoretically sophisticated systems-thinking, resilience as understood and practiced by powerful development actors ends up grossly simplifying social relations, leading to problematic oversights of structural issues, unequal internal system dynamics, and non-transformative nature of the proposed solutions.

Perhaps there is room for radical scholars and the Left in general to (re)claim or redeem resilience (DeVerteuil and Golubchikov, 2016; Nelson, 2014). However, it appears that, at least in the case of the adaptation project in STP, the term has already been hijacked by the neoliberal development machine to consolidate capitalist expansion and cement the political and socio-economic *status quo* across multiple scales. The repackaging of traditional agricultural development into resilience to climate change means little to the people of Liberdade, who continue to be skeptical of the effectiveness of initiatives in which they participate. The results of this study point to the final conclusion that resilience does not add anything new to the practice of development in the Global South and is of limited relevance to development aid beneficiaries (states, communities, and individuals), themselves. By

reducing the complexity and ‘messiness’ of adaptation to mechanistic interventions within the social-ecological system,

resilience thwarts the transformative potential of adaptation advocated by critical scholars (Dodman and Mitlin, 2013; Gillard, 2016; Gillard et al., 2016; O’Brien, 2012).

This hegemony of resilience constitutes a missed opportunity to seize the political and financial momentum of adaptation to further social justice and inclusion. For instance, the Green Climate Fund established at COP16 in Cancun will mobilize \$100 billion USD per year for mitigation and adaptation starting in 2020 – a notable step up from the offerings of the Marrakesh Accords from the turn of the millennium (Scoville-Simonds, 2016). With the context of STP, at least three new resilience-based development projects are already being planned or implemented using GEF funds (GEF, 2017). Therefore, the effects of the ever-growing number of local adaptation policies and interventions should be scrutinized and the most appropriate strategies for assistance identified. One of the key objectives of this work should be to provide more equitable and emancipatory alternatives to the post-political strategies currently being proposed and implemented, with rigorous research interrogating the latter’s evidently questionable normative and material benefits.

As mentioned above, approaches rooted in vulnerability and climate justice can help achieve this goal by redirecting adaptation research and practice to be more human-centered. And while vulnerability has already developed a literature on its own with a range of ideas on how to study it empirically (Adger, 2006; Adger et al., 2004; McCarthy, 2014; Ribot, 2014, 2009), climate justice is yet to produce a coherent set of methodologies that could be applied to local adaptive contexts in the Global South (but see: Kim et al., 2018). That said, critical work of this kind should not be limited to adaptation to climate change alone, as this would only serve

to depoliticize the issue further by separating it from broader structural issues that cause vulnerability in the first place. Adaptation challenges are much more than just that – in fact, they are not circumscribed to the realm of adaptive management or resilience thinking. Rather, the root causes of vulnerability and climate injustice should be traced to global, national, and local-level challenges related to political equality, emancipation, and democracy, in general.

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Table captions:

Table 1.

An anonymized list of all interviewees involved in this study.

Table 2.

Project components, outcomes, and outputs. Specific project activities are not shown due to space limitations. Adapted from UNDP (2014b).

Table 3.

The project's outcome indicators, including the associated baselines and targets. Adapted from UNDP (2014b).

Figure captions:

Figure 1.

Principal methods implemented during fieldwork in Ethiopia and São Tomé and Príncipe.

Figure 2.

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.

Figure 3.

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.

Figure 4.

Local community needs as reported by the residents of Liberdade, disaggregated by gender.