CONSTRUCTING THE BIGGER PICTURE:

HOW POWER AND HEGEMONY SHAPE CLIMATE ADAPTATION INJUSTICES IN COASTAL LOUISIANA

by

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ABSTRACT

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Constructing the Bigger Picture: How Power and Hegemony Shape Climate Adaptation Injustices in Coastal Louisiana

Thesis directed by Professor Jill Harrison and Professor Kathleen Tierney

Louisiana's response to coastal land loss and climate change may harm the very people it is intended to help. These are racially and ethnically diverse people whose cultural and social survival are threatened by this disaster. Louisiana's response also benefits political-economic elites complicit in the destruction of wetlands and in the creation of climate crisis. This dissertation investigates how this current condition developed and why it persists. To meet this objective, I conducted 82 in-depth interviews, carried out four months of fieldwork in Louisiana, and analyzed over 150 texts. Using a neo-Gramscian theoretical lens, I describe how implementing Louisiana's Master Plan (MP) for coastal restoration and protection became the goal of an organizational field, which I call the Coastal Action Field (CAF).

In this dissertation, I show how the oil and gas industry was historically able to avoid regulation and obscure its role in the coastal crisis, while political elites used industry as leverage to obtain federal funding for implementing the MP. As Louisiana's ecological condition worsened, foundations, environmental NGOs, and academic institutions became part of the CAF and gave legitimacy to a technocratic MP funded by disaster relief and oil and gas revenues. Foundations influenced public outreach and engagement in coastal planning, contributing to public acceptance of MP projects that exacerbate risks to frontline coastal communities. I illustrate how dominant discourses used by engineers, non-profit employees, scientists, and government employees normalize the influence of the oil and gas industry and frame the MP as the only way to address land loss and climate change. I highlight how individuals in the CAF strategically challenge dominant discourses and seek to reform the state's approach to coastal crisis, but still fall short in prioritizing environmental justice. I illuminate novel mechanisms contributing to climate adaptation injustice by connecting constructions of a hegemonic common good to utilitarian environmental management in a petro-dominated state. Specifically, I show how the combination of material constraints and coercive and ideological power impedes equitable adaptation, allows individuals to dismiss the negative externalities of the MP, and at worst, compels individuals to effectively regard frontline communities as disposable.

This thesis is dedicated to the people of coastal Louisiana.

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CONTENTS

TABLES

FIGURES

CHAPTER 1

INTRODUCTION

> "They say let the river do its thing, I guess to hell with the people…N o. I say it is about the people. It is about the people that live in the wetlands and use the wetlands as they are—as they were…and I tell you it is getting hard to hold on to hope nowadays. Because as it goes on and on, time is ticking away. We lost another couple of square miles of wetlands."
>
> -Pierre, Cajun environmental advocate

> "Environmental justice? I don't know what the word means. I don't know what it entails. All I know is there is no justice, at all, environment-wise, economy-wise, community-wise, culture-wise. We have no justice."
>
> -Kathy, Vietnamese American coastal community leader

The slow-moving environmental disaster of coastal land loss is currently threatening the social and ecological landscape of southern Louisiana. The disaster is inextricably tied to anthropogenic climate change. The warming of the planet causes sea-level rise and strengthens tropical storms and hurricanes, factors that further erode already-vanishing coastal wetlands (Boesch 2020; Gibbens 2020; Kossin et al. 2020). For coastal villages, towns, and cities, the loss of land means the deterioration of fish and wildlife habitat as well as the loss of an important first line of defense against hurricanes. The disaster is not going unnoticed in Louisiana. The state government—in partnership with the federal government, environmental non-profit organizations, academic research institutes, and even oil and gas companies—has launched an ambitious response to the problem, culminating in a multibillion-dollar plan to slow the encroachment of the sea. Politicians are positioning the state as an international leader in managing coastal hazards, which already affect many places around the globe and will only increase in severity as the climate warms (Lindsey 2021; Schleifstein 2018b; USGCRP 2017).

The compound disaster of land loss and climate change is yet another crisis facing racially marginalized and economically dispossessed communities burdened by environmental harms. Louisiana's history of environmental injustices, coupled with increasing environmental challenges, currently threaten the survival of frontline coastal communities comprised of Native American, Black, Southeast Asian, Hispanic, and Cajun people. Scholars studying land loss in Louisiana have outlined how specific response measures (such as resettlement practices and the building of engineered structures) could produce harms for frontline communities (Barra 2021; Colten et al. 2018; Gotham 2016a; Gotham 2016b; Hemmerling et al. 2020; Jessee 2020; Lipsman 2020; Maldonado 2018; Peterson 2020). This dissertation delves into the network of organizations responding to land loss, revealing how actors within this system rationalize and deflect this criticism. I unpack the historical and political-economic forces that shaped Louisiana's response to land loss and the contemporary forces that undermine more socially-just approaches to addressing the disaster. Finally, I highlight resistance to proposed programs, as community activists and other organizational actors push back on dominant narratives and press for reforms.

Louisiana's Response to Land Loss

Sociologists studying slow-moving and hard-to-perceive disasters (such as leaking oil spills, climate change, and toxic contamination) argue that organizational responses to such events are disorganized due to social factors that bungle effective action (Clarke 1989; 1999; Vaughan 1999). Slow-moving disasters defy institutionalized definitions of what a disaster is, causing confusion over what organizations have the authority and responsibility to act. In organizational fields, the lack of routine protocols to address slow-moving disasters can result in

competing definitions of those problems and in institutional inertia and inaction (Beamish 2000; 2002; Brulle and Norgaard 2019).

Louisiana's response to land loss appears to deviate from these assertions in key ways; Louisiana's government created new institutions dedicated to addressing the problem and is enacting a well-organized and well-funded coastal program that recognizes the root causes of the land loss disaster. For instance, the state is discussing eliminating greenhouse gas emissions to curb sea-level rise. Additionally, the state has a central authority, the Coastal Protection and Restoration Authority (CPRA), that has coordinated the construction of hundreds of coastal improvement projects outlined in the "Comprehensive Master Plan for a Sustainable Coast" (CPRA 2017; 2020a), which serves as a framework for prioritizing investments in coastal projects. That plan, hereafter also termed the MP, uses computer models and sophisticated software to predict what environmental conditions will be like in the future, such as how much land will be inundated with water due to sea-level rise. These tools evaluate proposed coastal projects, enabling decision makers to select projects that will be designed and built. Selected projects are ones that are projected to build the most land and have the best financial returns (measured by dollars saved in predicted flood damages) over a 50-year time period.

The projects in the Master Plan are labeled coastal "restoration" and "protection" projects. The Society for Ecological Restoration defines restoration as the "process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed" (2004 p.3). Palmer et al. (2016 p.4) add that restoration projects "attempt to move the composition, structure, and dynamics of a damaged system to an ecological state that is within some acceptable limit relative to a less altered and (probably) more sustainable system." In terms of Louisiana's MP, restoration projects are intended to create new wetlands, sustain existing coastal ecosystems, and

restore natural processes such as the replenishment of marshes with sediment and freshwater. Protection projects include the building of concrete and earthen structures designed to weaken storm surge and protect against coastal flooding. Protection projects include the building of levees, storm walls, storm barriers, and the elevation and floodproofing of structures. Master Plan projects have material benefits, such as the conversion of open water to wetlands and protection from the deadly storm surge of hurricanes, which are important as climate change intensifies hurricanes. The 2020 hurricane season demonstrated the fragility of the coast and its need for restoration and protection clearly. A record-breaking number of severe storms ripped through Louisiana's coastal zone, producing great amounts of flooding, ruining fish and shellfish habitats, and devasting coastal communities (Bruggers and Berwyn 2020; Lallo 2020; Schleifstein 2020a).

Critiques of the Response

While supporters of the MP boast that the plan has widespread support (Kline and Haase 2020; Lopez 2020; Reyher 2020), it has drawn sharp criticisms. First, the Master Plan is above all a prioritization effort and does not actually reverse land loss. According to key Coastal Protection and Restoration Authority personnel, the MP is a document that allows the state to determine how it can spend its money cost effectively to build and maintain coastal wetlands and reduce storm surge based on the use of predictive computer models (CPRA 2020b). This effort is intended to make the most out of limited resources (funding and the sediment needed to counter land loss) by predicting which projects benefit the most square acres of wetlands and have the highest cost savings (Colten et al. 2018; Hemmerling et al. 2020) The Coastal Protection and Restoration Authority acknowledges that the plan will not protect all coastal inhabitants and offers no concrete options for community adaptation or cultural preservation, implying that less-

densely-populated coastal communities will have to relocate or adapt in place, although individuals, families, and communities are constrained in their options for doing so. For instance, many coastal residents cannot afford to elevate or floodproof their homes and are unable to sell their homes because property values have plummeted (Davis et al. 2019); additionally, the state does not have enough funds to run a large-scale home buyout program or assist with resettlement (Wendland 2018).

The lack of social response measures represents an existential threat for frontline coastal communities. As discussed in the next chapter, Native American, Black, Vietnamese, Cambodian, Cajun, Hispanic, and other diverse peoples reside in coastal regions because of legacies of colonialism, slavery, and imperialism (Chan 2015; Colten et al. 2018; Davis 2010; Jessee 2020; Jolivétte 2007). They are not only vulnerable because of their physical location on the coast, but they have also been dispossessed of land and resources and politically disenfranchised for centuries. Displacement of these peoples threatens their survival because their livelihoods are tied to the coast, and they rely on social capital to weather economic and environmental disasters. Geographical place is tied to cultural traditions, and having a traditional homeland helps pass on those traditions and stay cohesive. Moreover, the massive infrastructure projects (such as large river diversions[1]) included in the plan are opposed by many people in these communities, who fear such projects will destroy their way of life (Rich 2020; Wright 2019). This is because the diversions will alter the ecology of downstream estuaries, potentially

[1] A river diversion refers to a man-made gate system that allows river water to spill out of existing levee structures and into surrounding areas. The river diversions the state is planning are large-scale, moving up to 75,000 cubic feet of water per second. They are referred to by the state as "sediment" diversions because they are engineered to maximize the amount of river sediments that are deposited in surrounding areas. Freshwater diversions are another type of river diversion that are designed to allow more water to flow out of the river as opposed to sediment.

degrading the natural resources (fish, wildlife, and vegetation) that these subsistence-based communities rely on (Rich 2020; Turner 2017; Turner et al. 2019). Additionally, diversions may result in downstream flooding, hastening displacement of coastal inhabitants whose homes could be inundated with water when the diversions are in operation (Colten et al. 2018; Peyronnin et al. 2017; Yeoman 2020).

Political-economic critiques of the MP describe how it benefits established interests. Sociologists Kevin Gotham (2016a) and Jake Lipsman (2020), and anthropologist Craig Colten (2019), have critiqued the MP for its technocratic approach to risk and lack of democratic engagement. They argue these features obscure the political nature of the MP and obscure how it benefits political-economic elites (wealthy landowners, business and industry executives, developers, land speculators, political appointees, and politicians). This happens because the plan does not compel energy companies or developers to compensate for tearing up the wetlands in pursuit of profits, nor does it regulate industry or limit new development (Elliot 2014; Houck 2015; Stole 2018). Additionally, MP projects protect industrial infrastructure such as pipelines and ports, safeguarding profits and revenue for elites (Baurick 2017; Lewis and Ernstson 2019; Lipsman 2020; Nost 2019). Randolph (2018) argues that the MP serves another insidious function. Characterizing the state's program on coastal restoration and protection as an "extraction machine," he describes the MP as a license for the state to continue with the status quo—that is, allowing unimpeded development in sensitive ecological landscapes for continued capital accumulation. In this way, the MP reproduces the conditions that made it necessary in the first place. These power inequalities also reproduce injustice; coastal people, who have suffered the most from industrial development and who have deep cultural and historical ties to the land,

are unable to affect decision making regarding their own future survival and are at risk from a plan that does not consider their needs (Maldonado 2018).

Alternative Approaches to Response

Frontline coastal communities are concerned, not just that the Master Plan (MP) does not directly benefit them, but that they will have to sacrifice *everything* in the coming years. They fear they will be displaced from their homes, lose social capital they depend on, be forced to abandon cultural traditions, lose their only sources of income or savings (from losing their homes), and receive no assistance to recover from these losses. This outcome is not inevitable. The plan could emphasize protecting the most physically vulnerable people and the people who are the most dependent upon coastal resources. Projects could be designed in such a way that they do no exacerbate risks to those vulnerable coastal communities. Furthermore, the state could do more to actively prioritize the needs of frontline communities and give these communities more decision-making power.

There are several examples of how frontline coastal communities could have a more active role in designing and implementing elements of the Master Plan. The Master Planning process could look more similar to an existing program, the Barataria Terrebonne National Estuary Program (BTENP), that has produced a comprehensive management plan based upon federal, state, and local stakeholder input at management councils. In this planning process, community stakeholders are present during early project planning stages, and all stakeholders must agree for the plan to be finalized. BTENP's plans emphasize restoration projects that improve water quality and maintain fish, shellfish, and wildlife habitats, as well as preserving cultural heritage.

Researchers have developed several processes that could be employed for integrating traditional ecological knowledge into the MP, for mapping coastal areas that are of significance to communities, and for making planning processes more democratic. These strategies have been developed but have not actually been implemented by the state. For example, a combined "Science and Traditional Ecological Knowledge" (Sci-TEK) process could help the state co-design projects with communities— still achieving the state's restoration and protection goals while offsetting negative externalities that could harm frontline communities (Bethel et al. 2014). Social scientists have also proposed other means for more meaningfully integrating coastal community priorities into the MP, such as by using social return on investment measures and a planning technique called "competency groups." (Hemmerling et al. 2020; Lewis and Ernstson 2019). Additionally, the Louisiana Strategic Adaptations for Future Environments planning effort (LA-SAFE) provided a blueprint for how the state can work in partnership with communities to design projects that are supported by locals. For this effort, six coastal parishes participated in a planning process which produced community-centric projects based on consensus.

All state agencies could do more to prevent environmental injustices. The state could limit industrial development, better regulate existing polluting industries, and be more aggressive in helping natural resource-based communities adapt to environmental changes while preserving their ability to stay cohesive as a community. Planning tools exist for preserving cultural heritage, such as community land trusts (Peterson 2020), and the state could help to establish these trusts so that frontline communities are not displaced and so that their communities are not gentrified. Currently, local governments in coastal Louisiana provide incentives for developers to build luxury vacation camps in low-lying areas, leading many coastal people to fear they will be

displaced by wealthy "weekend warriors" (Jessee 2020). The state could put more resources into expanding programs for flood proofing homes, buying out homes from willing residents, or giving people funds to relocate, programs which are dramatically underfunded compared to the state's program for building engineered structures. It is true that there are institutional constraints on how the state spends money; however, when there is political will at high levels, state leaders have been able to remove institutional barriers and obtain funding for ecological restoration (as will be discussed in later chapters). Currently, much political will appears to be going toward expediting the federal review processes for building large sediment diversions (Schleifstein 2018a).

Finally, state agencies could be more explicit in their recognition of historical injustices and how that connects to coastal land loss and community struggles. For example, citizens of tribal nations have been pursuing state and federal recognition for decades, and land loss makes this effort increasingly difficult, as already fractured tribes must maintain cohesion in order to receive official designation and recognition. Louisiana's coastal tribes have leaned heavily on non-profit organizations such as the Lowlander Center, which possesses extensive knowledge on connecting tribal communities to resources they need to preserve their culture and fight for their rights. State agencies could have better relationships with this organization and others with expertise in connecting communities with resources to advance their priorities. In sum, models for a more just approach to land loss do exist, but they are either ad hoc, not well funded, or are not systematically integrated into the state's coastal program.

Literature on Climate Adaptation Injustice

Because the planet is on a trajectory of increased warming due to unchecked greenhouse gas emissions, more cities and states are implementing measures to adapt to sea-level rise and

severe weather events. At the same time, emerging research on climate adaptation injustice indicates that these activities create winners and losers, frequently reinforcing existing social inequalities (Ciplet and Harrison 2020; Holland 2017; Jujonas et al. 2020; Keenan et al. 2018; Marino 2018; Schlosberg 2012; Shi 2020). For example, climate adaptation plans often emphasize personal preparedness for severe weather events while ignoring structural inequalities that create hazardous conditions and exposures for marginalized people (Béné et al. 2017; Cannon and Müller-Mahn 2010; Domingue 2019; Friend and Moench 2013). For example, people of color are more likely to not have adequate cooling and heating in places where they live and work, reside in low-lying elevations or floodplains, live and work in communities with failing infrastructure, or be experiencing homelessness—structural conditions that are linked to disinvestment, racial segregation, and discrimination (Bullard and Wright 2012; Jesdale et al. 2013; Klinenberg 2002; Peek 2018; Wright and Nance 2012). Meanwhile, scholars have shown that communities of color and low-income communities are more likely to be forced to relocate because flood protection infrastructure is not prioritized in the places they live (Shi et al. 2016). People of color and low-income people are less likely to benefit from home buyout programs and are more likely to need financial resources for relocation or flood-proofing (Loughran and Elliott 2019; Loughran et al. 2019; Nance and Johnson 2020). Additionally, in terms of emissions reductions, Indigenous people and less-affluent nations are at jeopardy of losing land rights with the uptick in renewable energy and carbon-offsetting projects (Kerr et al. 2015; Levenda et al. 2021; Osborne 2011); additionally, if prices for fuel and electricity become more expensive due to carbon taxes or use of alternative energy sources, individuals experiencing poverty will face a greater economic burden than their wealthier counterparts (Carly and Konisky 2020; McCauley et al. 2019).

Anguelouski et al. (2016) argue climate adaptation plans produce these types of environmental injustices because of two processes: acts of omission and acts of commission. Acts of omission occur when planning bodies disregard the adaptation needs of vulnerable or historically marginalized groups and communities and minimize their participation in planning efforts. Acts of commission take place when planning bodies actively prioritize stakeholders who already have resources and privilege in a community. However, there are still questions as to *how* these acts happen and whether more participation necessarily equals more just outcomes.

Social science research provides some insights here. Scholars contend that the claims of marginalized people can be discredited even when they are included, and this is particularly true for communities of color. For example, pro-environmental and colorblind discourses erase racial inequalities and allow government staff, planners, and citizens to resist anti-racist policies and practices (Derickson 2014; Hardy et al. 2017; Harrison 2016;2019). Neoliberal politics and policy discourse align with "colorblind" racial ideologies to marginalize people of color in planning post-disaster settings. For example, in New Orleans, climate planning discourses stress the need for entrepreneurism and free-market mechanisms for adaptation while framing the city's problems as being rooted in a lack of individual accountability in black communities (Brand and Baxter 2020). Government and non-profit actors also undermine community claims by asserting their scientific authority or framing themselves as responsible practitioners, acting in accordance with their organizational mission or mandate. Gwen Ottinger (2013) describes engineers working in Louisiana petrochemical facilities as using this type of boundary work to undermine the environmental health concerns of Black community members who live next to these facilities. These engineers cast doubt on the role pollutants play in shaping health outcomes, suggesting that individual health-related behaviors are to blame for poor health outcomes in Black

communities near petrochemical plants. In a study of regulatory agency staff, Harrison (2019) describes how staff undermine claims of environmental racism by emphasizing their impartiality and commitment to treating all communities equally, despite the fact that regulatory practices have left communities of color overburdened by environmental harms.

This Dissertation's Contribution

This dissertation builds on the work of these and other scholars and adds to it by investigating Louisiana's response to land loss and climate crisis. Theoretically, I conceptualize the organizations and individuals responding to land loss as embedded in hierarchies of power. To understand how the Master Plan reproduces environmental injustices, one must understand the power differentials among government, industry, civil sector, and citizenry. A main contribution of this dissertation is that I use a neo-Gramscian lens to understand mechanisms leading to, and sustaining, climate adaption injustice. This lens follows the intellectual tradition of Antonio Gramsci, who emphasized the role of culture and institutional alignments in maintaining the social order. This theoretical framework conceptualizes power as exerted through both coercive and consent-mobilizing practices (Gramsci 1971; Perkins 2011; Reed 2013; Salamini 1981). In other words, there are resources (material resources, but also legal rules, sanctioning power) available to political-economic elites that limit the options available to bureaucrats, scientists, and coastal citizens to influence state decisions around land loss. In addition to this more coercive form of power, those with less power also consent to this situation because of cultural influences that naturalize these power differentials and frame the specific interests of elites as universal. I also draw from scholars who conceptualize organizational fields as sites of power struggles for hegemony or field stability (Levy and Egan 2003; Levy and Scully 2007). This view of organizational fields emphasizes power as contested and dynamic because

those with less power can build coalitions to challenge dominant actors and ideologies (Ciplet et al. 2015).

In this dissertation—which is based on data from 82 in-depth interviews, four months of fieldwork in Louisiana in 2019 and 2020, and from analysis of over 150 documents and texts pertaining to Louisiana's response to land loss—I show how more equitable approaches get sidelined in the state's push to build brick and mortar structures. I trace the state of Louisiana's efforts to respond to the compound disaster of land loss and climate change over time. I describe the actors who design, fund, advocate for, and implement the state's coastal program (including the Master Plan) and show how they are part of an organizational field, which I call the Coastal Action Field (CAF). I delve into the history of this Coastal Action Field and show how its coastal program came to reflect elite interests while retaining legitimacy in the eyes of other stakeholders. Turning to the present, I highlight the ways in which members of the Coastal Action field (e.g. scientists, government administrators, engineers, and non-profit employees) undermine environmental justice through discourses that erase the Master Plan's potentially negative consequences for frontline communities. However, I also highlight how individuals connected with this field attempt to reform the MP and the practices of the Coastal Action Field more generally.

Overall, I argue that members of the CAF engage in strategic actions to advance a MP that faces real constraints imposed by Louisiana's political economy. I argue that these same actors contribute to the reproduction of environmental injustices, because political-economic constraints combine with ideological discourses of appealing to a greater good to undermine the legitimate environmental justice claims of the most vulnerable and marginalized coastal communities. These discourses take for granted the political-economic context and frame the

concerns of frontline communities as standing in the way of what the state sees as its only option for dealing with land loss—building large scale projects. As I discuss later in Chapter 5, this process involves the social construction of a "bigger picture," or shared common good, that excludes frontline communities. This resonates with Gramsci's concept of hegemony, but also adds nuance to the term by showing how ideological discourses also function to frame the interests of a marginalized few as in opposition to the many. Additionally, by situating land loss discourses within the context of Louisiana's power structure and the material challenges it imposes, I give evidence to the fact that there are material constraints which people have to work within, and that people do problematize these constrains and push back on them to some extent. At the same time, I show how discourses about strategy, and the need to act urgently, can produce environmentally unjust outcomes. Thus, I treat both material and cultural forces—as well as power based on coercion or consent—as part of the explanation for how climate adaptation plans reproduce injustices.

Personal Interest and Motivation

This project is the result of my desire to make sense of what I have seen unfolding in coastal Louisiana over time. I grew up in south central Louisiana in the city of Lafayette (about 45 miles north of the coast) and became increasingly alarmed when learning about the fragility of the coast and what that meant for the people who call the coast home. I imagined how difficult it would be for coastal people to retain their identity while dealing with the trauma of losing a homeland and their community. The concern that unique coastal cultures might be lost resonated with me. My family is ethnically Cajun, or descendants of French-speaking people from Acadia (modern day Quebec), and I have had my own fears about not adequately preserving my cultural heritage, even absent the fear of my community being washed away. Furthermore, I could

understand how land loss threatened the general well-being of people who are tied to wetlands and make their living from coastal resources. These feelings fueled my motivation for wanting to know how the state government was planning to handle what I saw as an impending social disaster.

When I was completing my master's degree at Louisiana State University, I discovered a lot about the Coastal Protection and Restoration Authority and the Master Plan. I learned about debates concerning Master Plan projects, particularly river diversions, and I was curious about how optimistic scientists and government administrators were that the diversions would work at all, and if so, who those projects would work for. I also wanted to understand why there appeared to be so much emphasis on ecological degradation but no major state-run efforts to help coastal people move or adapt to land loss. Finally, I wondered if the Master Plan would ever engage in discourse around climate change and the historical role of the oil and gas industry in producing the risks the state now faces. I thought this would be unlikely, given how central oil and gas is in Louisiana. I knew this firsthand. I grew up thinking of energy production as part of the fabric of life in Louisiana, and that was how it would, and should, always be. My own family made a very comfortable living working in businesses connected to the oil and gas industry, and I heard over and over again growing up that good, hard-working people in Louisiana were able to prosper because of the oil and gas industry (I interrogate these same narratives in Chapter 5).

It is with these motivations and personal interests that I set out explore Louisiana's response to land loss for my dissertation. When beginning this research, I had to confront uncomfortable truths, including how deeply entrenched forms of social oppression are in the social landscape of Louisiana, and how I had been insulated from seeing this through my own forms of privilege. I also had to challenge my assumptions about what the "best" way to handle

land loss is. It is my goal in this dissertation to give a fair representation of the people working on coastal land loss and living in coastal communities. I deeply respect the people I met and spoke with while doing fieldwork, especially coastal citizens and advocates pushing for justice. I do not question the dedication and good intentions that scientists, engineers, state employees, and others have when I raise critical concerns about their discourses. My analysis is not intended to identify heroes and villains, but rather to employ a critical lens and expand knowledge on how social justice comes to be de-centered from environmental work. I hope my work helps people question the assumptions that contribute to the injustices of the state's response to land loss. In this dissertation, I identify a fundamental assumption that needs to be dismantled: that elevating justice as a main priority is inherently at odds with lofty environmental goals.

Roadmap

Chapter 2 presents a more detailed description of the research setting and context. I provide information on coastal Louisiana's ecological, social, and political-economic landscape, specifically describing the forces behind land loss and the social forces that created environmental inequalities for frontline communities. Chapter 3 describes the research methodology of the dissertation. In Chapter 4, I answer the following question: how did action to address land loss become organized around a coastal-wide "Master Plan" that does little to challenge Louisiana's petro-dominated power structure? I answer that question by presenting a historical analysis of the Coastal Action Field over time and by elucidating how power operates within it. I show how powerful players (political-economic elites, foundations, big environmental NGOs) were able to shape discourse around land loss and influence the nature of public participation. This chapter lays out the historical and political-economic context that is necessary

for understanding current material constraints and power relations in the CAF. I then move to discussing the discourses that continue to naturalize these structures.

In Chapter 5 I ask: how do state agency employees, non-profit employees, and engineers support the MP when projects may harm the very people they are intended to help? To answer this question, I draw on ethnographic interviews with members of the Coastal Action Field and from fieldwork in coastal Louisiana. I highlight discourses that normalize the ubiquity and influence of the oil and gas industry and erase social—particularly racial—inequalities. I argue that this context lays the foundation for a binary framing of action around land loss, meaning that individuals can only support the Master Plan, or do nothing. I also highlight the discourses that support this idea and that align with prominent cultural values.

In Chapter 6, I answer the question: How do bureaucrats, scientists and members of non-profit organizations discuss reforming the state's approach to addressing land loss and climate change; and secondly, what are the implications for how the Coastal Action Field prioritizes environmental justice? To answer this question, I present data that highlights how state agency employees, restoration non-profit employees, and members of community-based organization challenge dominant discourses and seek to reform the state's approach to addressing land loss. I describe shifting political stances and reforms that have been implemented, but I also present evidence for how these reforms still fall short in prioritizing environmental justice.

Chapter 7 concludes the dissertation. In this chapter I summarize my findings and discuss how a neo-Gramscian theoretical framework adds to knowledge on climate adaption justice. I then describe additional empirical contributions. I present recommendations for practice and highlight the relevance of my findings for policy shaping environmental hazard mitigation and social inequality. Finally, I end the chapter by discussing future research directions.

CHAPTER 2

RESEARCH SETTING AND CONTEXT

> At first, the scenes along the bayou channel are somewhat normal; I see small homes and camps on the banks, many are up on stilts, large oak trees with moss hanging down their branches sit adjacent. Wrecked boats and fragments of piers are washed up along the banks. The boat captain says this is debris still to be cleared from Katrina. I watch a dark-haired young girl on the banks throw a fishing net into the water with finesse. As the ride goes on these sights became more and more rare. Eventually we motor into a narrow area where it felt like you could see all the way into the distance, all the way to the Gulf of Mexico. There were patches of land on either side of us, lined with trees, but the trees were dead. Their smooth dark bodies are stripped of all flaky and spongy bark, no leaves. Their silhouettes are contorted, almost like what a dancer would do for dramatic effect. Next to the trees there are horses on patches of grass. It looks like something from another planet, bizarre, a mismatch of things from the wrong time and place. The young woman sitting next to me on the boat gasps and then remarks about how beautiful it is, but then quickly recounts her statement and says, "I mean, the trees are actually ugly. They are ugly because of what they represent…but it is also kinda beautiful, I think." I understand the sentiment. The ghostly trees have an eerie and striking aesthetic. Afterward, I can't stop thinking about how the trees are not just windows into the past, not just a reminder of the old oak or "chenier" ridge that once was, but they're also signals of the future, markers of heartache to come. (Excerpt from fieldnotes.)

Ecological Context: Louisiana Coastal Wetlands and Land Loss

Louisiana's marshes and wetlands were formed over thousands of years, as river sediments from the Mississippi River and distributaries were first deposited in low-lying areas and then colonized by vegetation (Elsey-Quirk et al. 2019). The Louisiana coastal zone spans 20 parishes (Figure 1) and consists of approximately 37,780 square kilometers of land. Louisiana's coastal area can be divided into two major geological areas: the Chenier plain (western Louisiana), and the Deltaic Plain (eastern Louisiana). The former is characterized by natural oak-lined ridges, and the latter, eastern portion is comprised of highly organic soils (Boesch 2020). The plains can also be subdivided into several hydrological basins connected to different riverine systems. These basins are ecologically varied, characterized by different types of vegetation (oak and cypress trees, tall grasses) and salinity levels (Day et al. 2019; LCWCRTF 2015). The

wetlands and coastal marshes provide habitat for waterfowl, pelicans, herons, egrets, crawfish, oysters, shrimp, trout, alligator, and muskrats—among hundreds of other species. Wetlands perform vital ecosystem services such as water purification, carbon storage, riverine flood control, and storm surge buffering (Costanza et al. 2008; Couvillion et al. 2013). Economists estimate these services are worth billions of dollars; wetlands are such productive ecological systems they are considered to have the highest service-value out of any other type of landscape (An and Verhoeven 2019; Chen and Zhang 2010; Cimon-Marin and Poulin 2018).

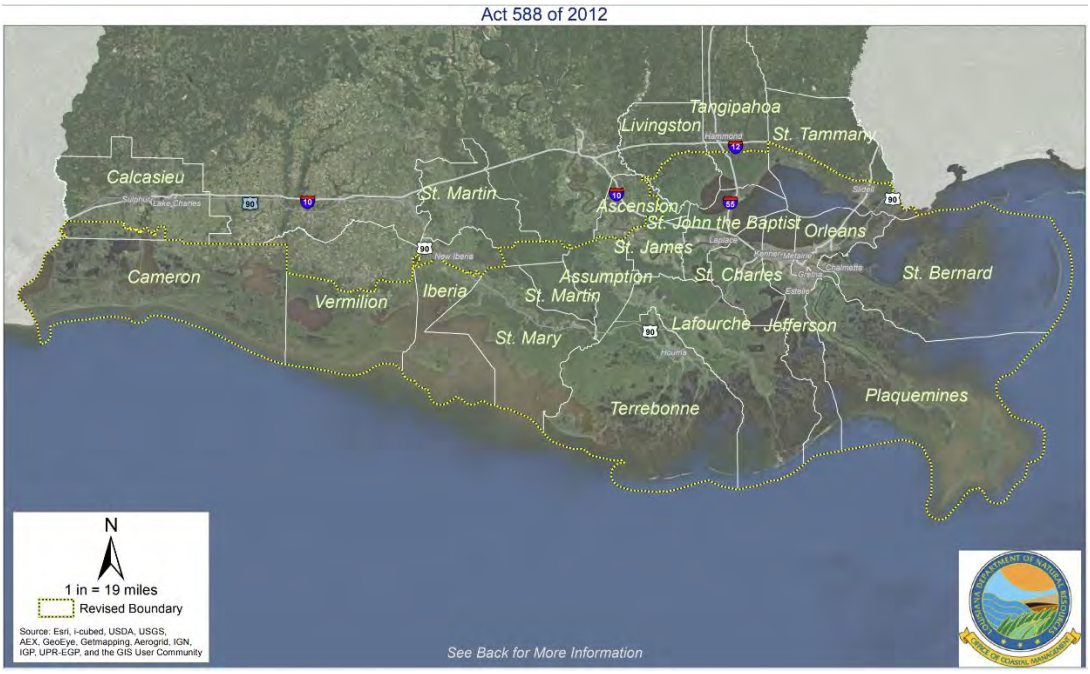

Figure 1. Map of Louisiana's coastal zone with parish boundaries. Map produced by the Louisiana Department of Natural Resources. Retrieved from http://www.dnr.louisiana.gov/assets/OCM/CoastalZoneBoundary/CZB2012/maps/Revised_CZB_with_Contact_Info.pdf.

Louisiana's coastal wetlands and marshes are also slowly being lost to the sea. According to researchers at the U.S. Geological Survey National Wetlands Research Center, the coastal zone experienced a net loss of almost 5000 square kilometers since the 1930s and is predicted to see continuing losses into the future (Couvillion et al. 2017). Slow-moving, spatially

variable, and caused by multiple interacting processes, land loss means that Louisiana's coastal wetlands are slowing sinking and breaking into pieces as the sea level rises, as hydrological cycles are disrupted from development, and as tropical storms literally rip apart fragile marshes (Day et al. 2019; Gibbens 2020; Peyronnin et al. 2013). Figure 2 presents a map of land loss over time, illustrating how pockets of the coastline have been lost starting in the year 1932.

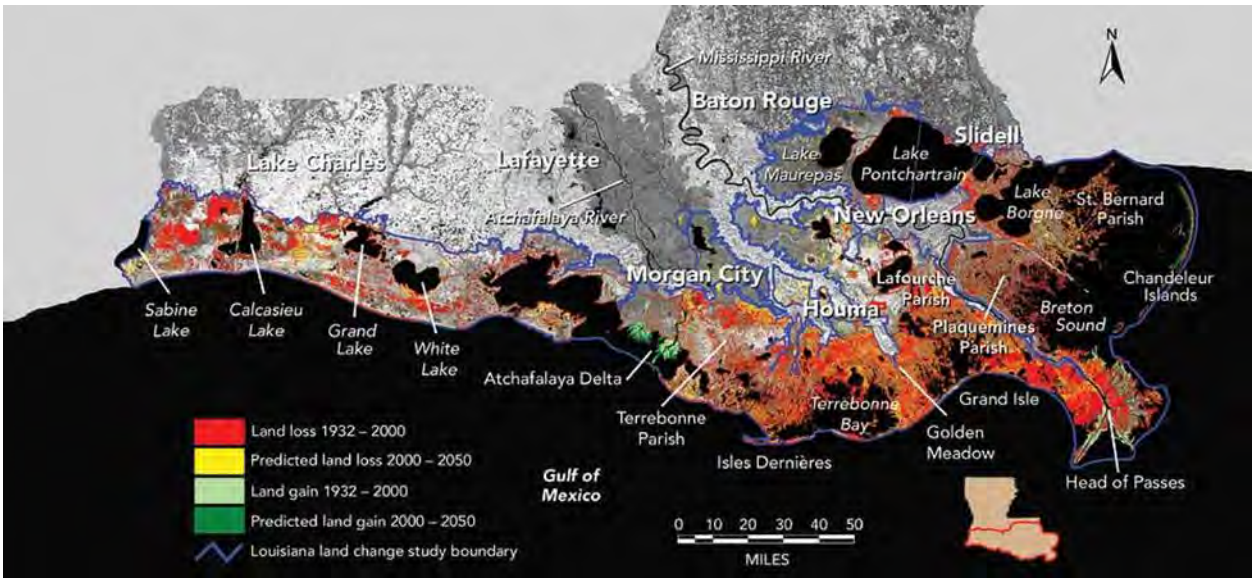

Figure 2. Map of coastal land loss over time. Source Image: U.S. Geological Survey, National Wetlands Research Center, accessed from Penland (2005).

Major historical contributors to land loss include the leveeing of the Mississippi River and the dredging of canals for oil and gas exploration, navigation, and commerce. These development practices alter hydrological cycles and choke wetlands of needed sediments and nutrients that enable them to remain viable. The withdrawal of fluids also causes soil to compact and sink (Jones et al. 2016). Although rates of land loss have actually slowed since the 1960s, scientists are becoming more confident in their assertations that accelerated sea-level rise caused by anthropogenic climate change will be the primary factor affecting the receding coastline in the future (Törnqvist et al. 2020). Scientists warn that if sea-level rise continues unimpeded, coastal

wetlands will not be able to keep pace with the rising seas and will disappear within the next few decades (Marshall 2020).

The slow-moving crisis of land loss is difficult to detect but is becoming more visible. From New Orleans to the Gulf of Mexico, places once covered in vegetation are vanishing into open water. In 2017, National Public Radio ran a story about a cultural site in lower Plaquemines Parish that was sinking (Wendland 2017a). The site, a patch of grassy land lined with a row of trees, was sacred to Native Americans who would place lemons under the trees to honor ancestors. The article quoted a local expert who took the journalists out to the site and indicated that in 10 years the trees would be completely submerged (depicted in Figure 3). Two years later, in 2019, I visited the same site with the same local expert, only to see that tree had vanished. The expert described the open waters around us as a "wasteland." Along with the conversion of marshes, bays, and forested swamps into open water, another striking and obvious sign of land loss is the presence of dead oak trees. These trees have been described by several writers as ghostly because of their skeleton-like appearance (Hallowell 2001; Streever 2001; Tidwell 2003; Theriot 2014). Oak trees cannot tolerate salt water and will die out as their roots start to absorb water from the gulf.

Rows of dead trees can be spotted in many coastal areas in the southeastern side of Louisiana, which has experienced more rapid subsidence than the southwestern side. While the southeastern side has received more national media attention[2], land loss is still happening (and will continue to happen) everywhere along the coast. The southwestern side is subsiding and

[2] See for instance: https://www.nytimes.com/interactive/2020/07/21/magazine/louisiana-coast-engineering.html, https://www.cnn.com/videos/us/2018/06/05/louisiana-land-loss-gray-pkg.cnn, Louisiana's Disappearing Coast | The New Yorker.

eroding because saltwater from the Gulf of Mexico is washing onshore and is being retained in freshwater areas. The whole landmass (both the Chenier and Deltaic plain) is currently shrinking at a cumulative rate of approximately 11 square miles per year (Couvillon et al. 2017).

Figure 3. Two images of a cultural site in Plaquemines Parish. Image on the right from 2017 NPR story: https://www.npr.org/2017/01/04/505320391/louisiana-history-washes-away-as-sea-levels-rise-land-sinks. Image on the left was taken by author in 2019. The tree on the left is now completely submerged underwater.

Social Context: Coastal Louisiana's Racial and Ethnic Communities Vulnerable to Land Loss

As long as 12,000 years ago, Indigenous people comprised Louisiana's first societies. These people migrated their settlements in response to the changing course of the Mississippi River (Davis 2010). Today, Louisiana's coastline is home to diverse communities who have traditionally lived off the land's natural resources. These communities are descendants of Indigenous peoples and immigrants who came to reside in coastal Louisiana. In the 19th century, the Louisiana coast was home to settlers from France, Spain, Africa, the Canary Islands, Haiti, Croatia, Serbia, the Philippines, Malaysia, China, and Italy (Davis 2010; Hemmerling 2017).

Many of these peoples intermarried with Acadians, a large ethnic group with Canadian and French ancestry.

Some of the people residing in coastal communities settled there after traumatic diasporas connected to their racial and ethnic identities. People living in the most rural, remote, or physically vulnerable areas do so because their ancestors were pushed to those areas or sought refuge in the coastal bayous.[3] A common thread that runs through the histories of these people is that they have been marginalized and subjected to violence by imperialists, colonialists, and white supremacists. The historical processes through which people of color have been robbed of their land and relegated to vulnerable areas is not unique to the Louisiana coastline. Hardy et al. (2017) have shown that all along the eastern coast of the U.S., communities of color are at risk of being displaced by both environmental conditions and the migration of affluent whites to coastal areas. They call the racist land grabbing practices that led to this uneven geography of wealth and environmental risk, "racial coastal formation."

The Louisiana coastline is a racialized coastline, akin to what Hardy et al. describe in other areas of the country. It is characterized by its own specific racial and ethnic hierarchy that solidified as a strict racial caste system developed in the United States. One large ethnic group, the Cajuns, largely assimilated as white during the 19th and 20th centuries[4] while people of color

[3] Bayous are wetlands where there is stagnant or slow-moving water. In Southeastern Louisiana, communities live along bayous on narrow ridges of higher ground.

[4] It was surprisingly difficult finding information regarding Louisiana's racial and ethnic minorities, except for Cajuns. I found considerably more resources dedicated to the history of Cajuns in Louisiana. While this could be attributed to the fact that they make up a large percentage of the population, I suspect this is also related to white supremacy, in that the histories of other racial and ethnic minorities have been erased over time. Additionally, it was difficult to find information that discussed forms of oppression which Cajuns participated in. For instance, it is unclear how many Acadians owned enslaved Africans and people of African descent. Most sources note they did not have enough wealth to participate in slavery. This is

were increasingly stripped of their rights and subjected to racial violence (Ancelet 2007; de la Fuente and Gross 2020; Lima 2008; Pfeifer 1999). Some Cajuns garnered considerable economic and political power in the region, although many are still part of the working class poor and live in frontline communities being threatened by land loss (Bates 2017; Harrison 2012). The Louisiana coastline has been dubbed by writers such as Mike Tidwell as a "Cajun coast," (2003) that is in dire need of help, but this imagery obscures the other racial and ethnic groups who also live along the coast and have their own unique cultural traditions in danger of being erased. For example, Black Creoles' cultural influence to Louisiana comes in the form of music, food, and dancing. The popular genre of Zydeco music comes from Black Creole Louisianans. In coastal towns Cambodian people hold Buddhist celebrations, tribal citizens continue passing down ecological knowledge, such as foraging for medicinal plants, and Isleños (people from the Canary Islands) continue traditional folk dancing (Owens 2021).

In the next sections I describe the people who comprise frontline communities in the land loss crisis, including Cajuns, but also including Native American, Black and Black Creole, Asian, and Hispanic people. I describe their histories of discrimination and marginalization, and how they came to reside in the most fragile coastal environments. This section is not intended to be a conclusive list of all the people with unique ethnic origins in coastal Louisiana who are now vulnerable to environmental hazards.[5] The people and communities I describe below I identified

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because they themselves were beholden to wealthy landowners as sharecroppers and did not morally agree with slavery. However, other accounts note that many Acadians followed the example of wealthy whites and did own enslaved people (see History of slavery leaves colored Cajuns questioning the "Good times" | Allons | thevermilion.com ACADIAN-CAJUN Genealogy & History (acadian-cajun.com).

[5] One group I do not discuss in this section are the Croatians who left central Europe during periods of political and social upheaval. Descendants of immigrants from Croatia do reside in coastal parishes and are vulnerable because people they are largely employed in the commercial

through literature on the history of coastal Louisiana and through scholarship on Louisiana's contemporary racial and ethnic landscape. What makes the communities I describe below particularly vulnerable to land loss and climate change is that their livelihoods and ways of life are closely tied to the resources the coast provides and from resources available through their social networks. Additionally, they are occupying lands that are quickly deteriorating due to land loss, and their social marginalization results in high levels of vulnerability to disaster.

Louisiana Native American communities

The Atakapa, Chitimacha, Houma, Washa, and Chawasha tribes occupied areas along Louisiana's coast until the French and Spanish colonized Louisiana in the 17th century (Davis 2010). Many of these Indigenous people were displaced by colonial settlers and other immigrant groups such as the Acadians; however, Indigenous communities remained in isolated areas along the coast. Today there are several Native American communities whose members tie their ancestry to these tribes and other displaced native peoples. These contemporary coastal tribes in Louisiana include: The United Houma Nation, the Grand Bayou Village band of Atakapa-Ishak/Chawasha, the Grand Caillou/Dulac band of Biloxi-Chitimacha-Choctaw, the Isle de Jean Charles band of Biloxi-Chitimacha-Choctaw, and the Pointe-au-Chien Indian tribe. Out of these tribes, the United Houma Nation, the Pointe-au-Chien Indian tribe, and the Isle de Jean Charles tribe are recognized by the state of Louisiana. The people of Grand Bayou Village and Grand Caillou/Dulac lack even state recognition, meaning they are often left of any state-led planning efforts (Yeoman 2020).

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oyster industry. However, Croatian families are also dominant players in that industry. I focus here on people that are more marginalized and racialized within Louisiana society.

All these tribes lack recognition by the federal government as official "American Indian" tribes, a designation they have been pursuing for decades. Federal recognition would confer legal rights to the tribes and allow them to pursue additional types of federal aid. The process for establishing recognition is arduous, mandating that tribal peoples prove their ties to the land and prove they are still a cohesive community with distinct cultural traditions and governance structures (DOI 2015; Klopotek 2011). This is difficult since the displacement and marginalization of tribal people leave large gaps in the historical record and make it difficult to prove their identities as distinct tribes (UUSC 2020). Indeed, because many Indigenous people intermarried with French and African people, their Native American identity became subsumed under the term "Creole," a term popularly used by Louisianians to refer to non-white French speaking people (Jolivétte 2007). For example, over 17,000 people belonging to the United Houma Nation live across six different parishes in Southeastern Louisiana. There is historical evidence showing that Houma people were living in Southcentral Louisiana when the Spanish and French first arrived. However, when the tribe applied for federal recognition, their petition was rejected by the Bureau of Indian Affairs. They were told that over time their people had assimilated with other ethnic groups and that the present tribe is an "amalgamation" of tribal people (Burdeau 2015), reasoning that is itself based on invalid assumptions of what it means to be a member of a tribal nation. In the eyes of the federal government, this was enough justification to void the contemporary tribe's claim to recognition.

The people of the Grand Bayou village, Grand Caillou/Dulac, Pointe-au-Chien, and Isle de Jean Charles are smaller in number than the United Houma Nation, but still live in semi-cohesive communities along coastal bayous in Southeastern Louisiana. The Isle de Jean Charles band of Biloxi-Chitimacha-Choctaw have received ample media attention in the last few years

because many of the members of the tribe are being resettled outside of Isle de Jean Charles (their traditional land) by the state of Louisiana. The "island" (as it is popularly referred to) of Isle de Jean Charles refers to a small strip of land that is tucked away in the bayous north of Terrebonne Bay. The people of Isle de Jean Charles have oral histories connecting their ancestors to survivors of forced migration policies in the mid-1800s (Jessee 2020). It is believed that Native Americans escaped the violence of the Indian Removal Act and other policies by finding refuge on this far-flung island.

Citizens of the Pointe-au-Chien Indian Tribe and the Grand Caillou/Dulac band of Biloxi-Chitimacha-Choctaw also reside in the bayous of Terrebonne Parish, south of the city of Houma. These tribes trace their ties to this land back to the early 19th century when they were pushed south by European settlers (GCDBCC 2020; PACIT 2020). In bayous to the east of Terrebonne Bay, the Atakapa-Ishak/Chawasha families of Grand Bayou Village live in homes elevated on wooden pilings only accessible by boat. The population of Atakapa-Ishak/Chawasha living in Grand Bayou, their ancestral home, has dwindled significantly following major hurricanes and loss of wetlands (Yeoman 2020).

Native American communities are economically disadvantaged after years of marginalization within Louisiana society. Tribal children in Louisiana were denied educational opportunities at white institutions until the 1960s (Klopotek 2011). Tribal residents today are largely employed in the commercial shrimping industry, working in low-wage jobs such as processors in seafood factories (GCDBCC 2020; Hemmerling 2007; Yeoman 2020). While tribal peoples have been dispossessed over decades, private landowners and oil and gas companies have made enormous profits from fossil fuel deposits in the wetlands where these people reside (Baniwecz 2020; Day et al. 2020). Now, these people are occupying land that is

rapidly deteriorating. As Figure 2 depicts, the wetlands around Terrebonne, Lafourche, Jefferson, and Plaquemines Parish have been eviscerated overtime.

The coastal wetlands hold deep cultural and spiritual significance for tribal members. Tribal elders continue passing down their knowledge of the landscape and practices for living on that landscape to younger generations. Louisiana's tribal people are not just fisherfolk; they also hunt, trap, forage, raise livestock, and farm—activities that are becoming increasingly impossible to do as land loss worsens. For tribal residents, losing their homes is not just economically devastating; it would also mean losing part of their identity and spirituality, as they believe in the sanctity of nature. Rosina Phillipe, a resident of Grand Bayou put it this way in an interview with reporters, "it's like we've incorporated our very DNA into what's around us in the land, the air, the water, the other life forms that share the space with us, leaving would be like death" (Yeoman 2020). Land itself is also a crucial component of justice for Indigenous and tribal citizens who see themselves as stewards of the earth, a relationship that has been severed by settler colonialism and decades of broken treaties and unfair land policies from the U.S. government (Carroll 2015; Gilio-Whitaker 2020; Whyte 2013).

Black and Black Creole communities

European enslavers brought African people to colonial Louisiana starting in the 18th century. The French and Spanish were the first to colonize Louisiana, and these imperialist powers had already established the Atlantic and Caribbean slave trade. Free Afro-Caribbean people also migrated to coastal Louisiana around this time (Parham 2012). Currently in Louisiana, the descendants of French-speaking Black people of colonial Louisiana often identify

as Creole.[6] Black Creoles live in coastal areas and across Southwestern Louisiana and trace their ancestry to liberated and free people of color who settled in Louisiana after Haitian liberation from France (Brasseaux 2020). After the U.S. purchased Louisiana, and following the intensification of the domestic slave trade, white southerners in Louisiana prospered from an economy based on the free labor of enslaved people. By the mid-19th century, the City of New Orleans became a major part of the U.S. domestic slave trade and was the largest market for enslaved people in the U.S. (de al Fuente and Gross 2020).

After the civil war and reconstruction, white backlash, including Jim Crow rules and white-perpetrated racial violence, continued the marginalization of people with African ancestry and descendants of formerly enslaved people (Pfeifer 1999; Seicshnaydre et al. 2018). After the Civil War, many Black people lived in rural areas connected to plantation homes. In the 20th century, they were then forced into urban areas that were not protected from coastal hazards the way affluent white areas were (Lewis and Ernstson 2019). For example, the community of Fazendeville was a village in St. Bernard parish established by free Black people after the Civil War. This community was displaced in the mid-20th century when the National Park Service enforced a program of forced buyouts and demolished structures in this area (Dalbom et al. 2014). Many of the Black people of Fazendeville relocated to the Lower Ninth Ward in New Orleans, an area with high flood risk. Black people in the city of New Orleans do live inside of a levee system; however, they are at more risk than their white counterparts because segregation has forced Black people to reside in low elevation areas and places next to industrial canals

[6] Creole also refers to a specific language that is a mixture French and West African languages. The term "creole" originally referred to people who either spoke Creole, or who were born in colonial Louisiana. Over time, white people abandoned the label. Also, some Black Creole people actually speak Cajun French, but still identify as Creole (Brasseau 2021).

prone to flooding. The tragedy of Hurricane Katrina demonstrated this clearly, when the Lower Ninth Ward experienced devastating flooding due to a confluence of factors, including a breach at the Industrial Canal (Colten 2009; Dalbom et al. 2014; Lascell and Baumann 2015).

Throughout the 19th century, redlining, discriminatory housing ordinances, and uneven development created extremely segregated spaces in southern Louisiana. These spaces are also characterized by disparate exposure to toxins from industrial pollution. Along the Mississippi River and in Southwestern Louisiana, Black communities live near numerous petrochemical manufacturing plants and other industrial facilities that release toxins into the environment (Baurick 2019a; Blodgett 2006; Colten 2012). The stories of these fenceline communities are tied to slavery and racial discrimination. For example, the people of Diamond, Louisiana were descendants of one of the largest slave rebellions in U.S. history (Lerner 2005). After the civil war, Black people established their community on what was formerly a plantation. The New Orleans based refining company, Norco, then moved in and built a company town adjacent to the community. As the oil and gas industry expanded in Louisiana, the Diamond community became sandwiched between petrochemical refineries and manufacturing facilities owned by Shell Oil.[7] Black people did not benefit from polluting industries located in close proximity to their homes. When hired by companies like Norco or Shell, they were relegated to menial jobs without chances for advancement (Higgins 2005; Lerner 2005). Presently, there are more Black people working in the fossil fuel industry, but they still earn significantly less than their white colleagues (Tomascovic-Devey 2020).

[7] The community of Diamond was eventually able to force Shell to provide financial assistance to move residents out. However, this movement came at a price, as the community scattered across Louisiana and lost cohesion (https://www.bloomberg.com/news/articles/2018-01-24/moving-a-louisiana-town-out-of-the-path-of-climate-change).

While many Black communities are located in urban areas around New Orleans (particularly on the West Bank of the Mississippi River), there are Black people employed in shrimping, oyster, and crabbing businesses and who live in smaller coastal towns and cities south of New Orleans, such as Davant, Pointe a la Hache, and Phoenix. Many of these Black fisherfolk were hard hit by the British Petroleum (BP) Oil Spill. Fishers claim that BP discriminated against them when doling out compensation checks and when hiring workers to clean up the oil spill (Mock 2010; The Lens 2010). Discrimination in fishing professions is not new. For instance, in the mid-20th century, shrimping associations worked exclusively with white shrimpers to get them higher prices for their catches and better bargaining deals with retailers (Priest 2016).

There continue to be pronounced racial disparities for Black people in Louisiana who make up over 30% of the population. In Louisiana, Black people are more likely than white counterparts to experience poverty, work in low wage jobs, experience poor health outcomes, and are less likely to be homeowners or be in positions of political power (Canicosa 2020; Data USA 2021; Fairclough 1999). Louisiana neighborhoods and school systems are still heavily segregated, as white families enroll their children in private schools and white communities use political force to break off from existing public school districts (Butkus 2019). Black people also continue to experience racial violence, continue to be racially profiled, are disproportionately put in the criminal justice system, and are underrepresented in juries in Louisiana (ACLU 2009; Grover 2020). Recently, the murder of unarmed Black men at the hands of police, police use of excessive force, and police use of racial slurs have renewed racial tensions in the cities of Baton Rouge, Lafayette, and New Orleans (Feldman 2021; Major 2021; Treisman 2020). Moreover, following Hurricane Laura in 2020, Lafayette officials refused to open shelters for hurricane evacuees (mostly Black), siting concerns that evacuees were “threats” to locals and would take

advantage of Lafayette's hospitality (Armus 2020). These racist tropes have criminalized and marginalized Black communities for centuries and signal how difficult climate-induced migration or displacement might be for them in the coming decades.

Cajuns

A large ethnic group in southern Louisiana are the Cajuns.[8] These French-speaking people (first called Acadians) lived in Nova Scotia until they were forcefully removed by British forces during the French and Indian War. Numerous exiled Acadians settled in rural and coastal areas of Southern Louisiana, becoming known as Cajuns. Over time, the Cajuns migrated westward, and in doing so, displaced Atakapa Indians (Davis 2010; Hochschild 2016).

Cajun people are known for their devotion to the Catholic religion, strong familial ties, and affinity for music and dancing. In the early 19th century, Cajun people mostly made their living from farming, trapping, and fishing, and few received a formal education (Davis 2010). In the early 20th century, Louisiana schools began mandating that only English be spoken. Accordingly, many Cajun people stopped passing down their language, a variant of the French language (Ancelet 2007). Cajun people "Americanized" (Bernard 2003) over time as many Cajun families abandoned their traditional subsistence lifestyle and moved into urban centers (Estaville 2001). During the oil boom in the mid-20th century, many Cajuns migrated to cities and prospered through employment in high-wage jobs (Theriot 2014). Cajun people also

[8] It is difficult to get a population count of Cajuns since it has not been a U.S. Census category. One research report estimates there are over 800,000 Cajuns in Louisiana (RR118racialandethnicgroupsinthegulfofmexicoregionc.pdf).

increasingly gained political power as they[9] came to hold high-ranking positions in state government, including Governor (Tidwell 2003).

People identifying as Cajun now occupy areas across coastal Louisiana. Many reside in urban areas around Lake Charles, Lafayette, Morgan City, Houma, and Thibodaux, and have lifestyles similar to other suburban and urban middle-class people. However, some Cajuns continue to inhabit vulnerable rural and coastal areas and have meager financial resources (Harrison 2012; Hemmerling 2007; Colten et al. 2018; Sneath 2017). Many live in smaller towns and villages along Louisiana bayous, such as Bayou Petite Calliou (Figure 4). Cajun people on the coast are largely employed in natural resource industries, such as fishing and trapping, and also work in the oil and gas industry. In fact, it is fairly common for fishmen[10] to also work jobs in the oil and gas industry (Harrison 2012).

[9] The overwhelming majority of those with political power and influence were men. Louisiana's elected leaders have mostly been men. The state has one of the lowest percentages of women in elected offices in the entire U.S. (https://fivethirtyeight.com/features/more-women-are-holding-political-office-but-not-everywhere/).

[10] I mostly refer to fishing communities and people as "fisherfolk" to be gender inclusive, because women do take part in this industry; however, from my research and from accounts with locals, the people who rotated in and out of the fishing industry and oil and gas industry were almost exclusively men (Priest 2016).

Figure 4. Abandoned boat and school in Bayou Petit Caillou. The people still residing in this area of southeastern Louisiana are predominately Cajun, Native American, Southeast Asian, Hispanic, and Black.

The Vietnamese, Cambodian, Lao, and Thai people of Louisiana

Vietnamese people began migrating to Louisiana immediately after the fall of Saigon in 1975, some enduring grueling voyages across the ocean to eventually settle in coastal areas in Southeastern Louisiana (Tidwell 2003). Catholic non-profit organizations were heavily involved in the resettlement of Vietnamese people and recruited Vietnamese priests to live and work in Catholic dioceses (Davis 2010; Truitt 2019). Following years of this migration pattern, Vietnamese people formed a strong ethnic enclave east of New Orleans. While many Vietnamese people opened small businesses in places like Village de l'Est, many also found employment in the commercial shrimping industry. Although Vietnamese people are most heavily concentrated in Orleans and Jefferson Parishes, many Vietnamese fisherfolk are located throughout the coast, including in Lower Plaquemines Parish, and Jefferson, Lafourche, and Terrebonne Parishes (Bankston 2020).

Other immigrants from Southeast Asia in Louisiana's coastal zone include people from Cambodia, Laos, and Thailand (Shafer 2020; Sneath 2017). Cambodians fled from the genocidal

regime of Pol Pot (who came to power after a secret U.S. military-led bombing campaign devastated and destabilized the region) (Chan 2015; Grandin 2015). Cambodian people settled in Plaquemines parish, many in the small town of Buras, where they found work in the commercial fishing industry (Sneath 2017). Vietnamese and Cambodian fisherfolk were severely impacted by the 2005 Hurricane season and the British Petroleum Oil Spill (Sasser 2010). These communities are economically precarious because of the fluctuations in the shrimping industry. They also face a steep language barrier, presenting obstacles for receiving compensation for damages or recovery aid.

Challenges to living in coastal Louisiana as members of ethnic minorities are not limited to language obstacles; they also include violence and environmental racism. People from Southeast Asia fled from violence linked to American military interventions only to face threats of racist violence once in this country. Vietnamese fisherfolk, in particular, were targets of violence from the Ku Klux Klan in the Gulf Coast region. In Galveston in the 1980s, clansmen bombed Vietnamese fishing boats and made grotesque public displays to intimidate Vietnamese fishers (Smith 2017). In Louisiana, the Vietnamese and other Southeast Asians were blamed for taking jobs away when the shrimping industry declined following the BP disaster. The fear and trauma of violence run deep. As one journalist reported, many Southeast Asians in Louisiana carry firearms on their vessels out of fear of racially motivated attacks on their lives (Kang 2020). Furthermore, Vietnamese and other Southeastern Asian communities have also suffered from environmental inequalities. For example, after Hurricane Katrina, a landfill containing storm debris was placed right outside Village de l'Est, despite community concerns over how this might contaminate the aquatic habitats on which they rely heavily (Kang 2020).

Hispanic and Latino/a communities

Although often forgotten in discussions of Louisiana culture, there has always been a heavy Spanish influence in coastal Louisiana. The Spanish were the first Europeans to explore Louisiana in the 16th century, although they did not claim ownership of Louisiana until decades later. Immigrants from the Spanish-owned Canary Islands became known as Isleños people and settled mainly within St. Bernard Parish (Colten et al. 2018). While earlier generations of Isleños were primarily subsistence fishers, descendants of these people are now heavily employed in the oil and gas industries (Hemmerling 2007). Additionally, immigrants from Cuba, Honduras, and Mexico have settled in southern Louisiana over the 20th and early 21st centuries (Donato and Hakimzadeh 2006), and migration from Latin America to areas across the coast continues today (AIC 2020). Unlike other racial and ethnic groups described in this section, Hispanic and Latino/a people are not as spatially clustered; they tend to be located throughout coastal Louisiana, including Southwestern Louisiana (Laska et al. 2005).

Latino/a and Hispanic people still face social marginalization. Historically, people with darker skin complexions were racialized as non-white and were subject to discrimination and even racial violence (Lima 2008). Today, Hispanic and Latino/a people are integrated into the social fabric of communities, but they are still rendered invisible in certain contexts (Chaney 2017). For example, Latino/a communities living in New Orleans prior to Hurricane Katrina faced obstacles in recovery because they were overlooked by government administrators and local leaders who misidentified them as temporary laborers (Trujillo- Pagán 2007). After Hurricane Katrina, the population of Latino/a immigrants increased substantially, stirring up racialized anti-immigrant sentiments. Migrants from Mexico and other Latin American countries did supply labor to the rebuilding effort in New Orleans, but these migrants were relegated to

low-earning jobs in the post-disaster labor market and were exploited by companies involved in the recovery process (Sisk and Bankston 2014; Weil 2009).

Political Economic Context

The oil and gas industry in coastal Louisiana

While commercial and extractive industries (agriculture, logging, seafood processing, shipbuilding etc.) have always been a big part of Louisiana's economy, no industry has had more of a presence in Louisiana than the oil and gas industry. The Louisiana coastline is home "to the greatest concentrations of offshore oil activity in the history of the planet," (Freudenburg and Gramling 1994 p.74), which has led to the development of a globalized petrochemical-industrial complex that makes its profits from the unique concentrations of resources, export capacities, and financial concessions that Louisiana has to offer. Even though industrial facilities and plants are now spatially concentrated in Lake Charles and along the Mississippi River, the entire coastline has been touched by industrial development (in the form of wells or pipelines) since petroleum resources were first discovered in 1902. After this discovery, exploration of oil fields increased dramatically. From the 1950s on, oil and gas companies drilled hundreds of thousands of wells in Louisiana. By 2003, companies had drilled over 62,000 thousand wells in coastal parishes alone (NRC 2006). Companies operating in Louisiana included Apache, British Petroleum, Texaco, Chevron, and Shell (Maldonado 2018). These companies, along with affluent landowners, still own substantial portions of the coast.

After inland and nearshore oil and gas resources in Louisiana had been exhausted, exploration for offshore resources began. The global offshore drilling industry was created in Louisiana (Freudenburg and Gramling 1994), meaning that companies in Louisiana were leaders

in developing and constructing the technologies needed to retrieve fossil fuels from remote areas in the deep waters of the Gulf of Mexico. This also meant that numerous support industries developed in Louisiana, contributing to the building of refineries, railways, and navigational passages that enabled the processing and transportation of fossil fuel products. Louisiana is also home to an extensive system of pipelines that connect active wells and offshore platforms to ports and markets (Figures 5 and 6).

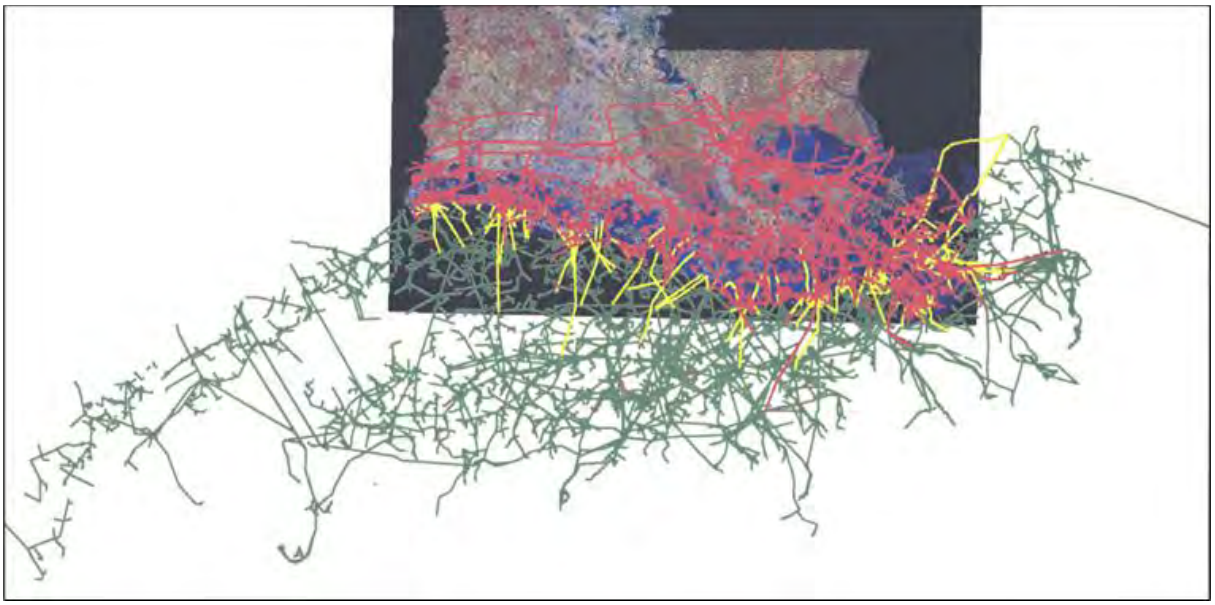

Figure 5. Map of Louisiana oil and gas pipelines. From the Louisiana Department of Natural Resources. Retrieved from http://www.dnr.louisiana.gov/assets/docs/oilgas/data/SLA_Pipelines.pdf.

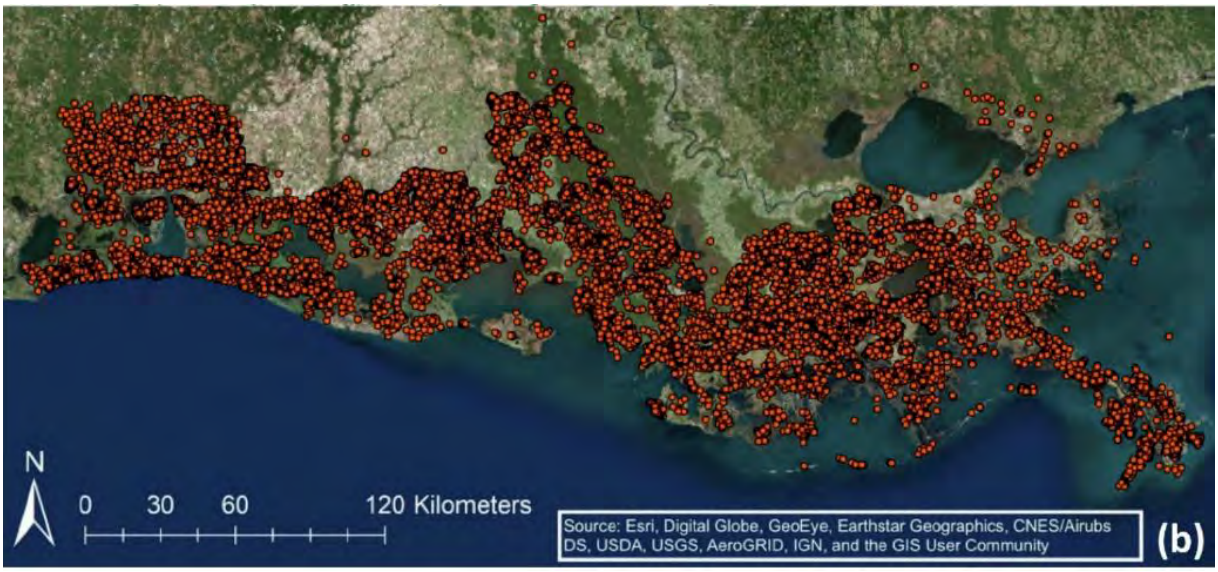

Figure 6. Map of oil and gas wells. Retrieved from Turner et al. 2018.

Consequences of development

Over decades, oil and gas companies, logging, navigation, and other businesses successfully received permits from the state to dig over 15,000 kilometers of canals through coastal marshes (Gotham 2016a). Canals were mainly used for transportation, drainage, and to build or contain pipelines that carried oil and gas. These canals are detrimental to coastal wetlands; when canals were dredged, soil was piled right along each canal, greatly altering the hydrology of wetlands. The canals cause saltwater to be retained in freshwater areas and kills freshwater vegetation. Some large canals with detrimental environmental footprints include industrial navigational projects, like the Mississippi River Gulf Outlet (MRGO). The MRGO was a project backed by the Port of New Orleans, shipping interests, and local elites. Researchers at Louisiana State University later identified the MRGO as responsible for degradation of surrounding wetlands and for increased storm surge from Hurricane Katrina (Freudenburg et al. 2009; Lewis and Ernstson 2019; Schleifstein 2020b).

Environmental impacts of oil and gas development go beyond saltwater intrusion. Not only do canals contribute to environmental degradation, but the withdrawal of fluids from below ground also causes soil to compact and sink (Day et al. 2020; Yuil et al. 2009). Oil and gas companies and other industries have also greatly contributed to the contamination of groundwater, river water, soil, and air in Louisiana (Iqbal et al. 2008; Twumasi et al. 2020), and they continue to do so. Two recent examples of troubling contamination events and pollution problems include the Taylor Energy oil spill (an oil spill in the Gulf that lasted for over 14 years and was only recently plugged), and the release of plastic pellets into the environment from energy companies and plastic manufacturers (Fears 2018; Sullivan 2020).

Levee building also affects the coastal environment. First, levees exacerbate flood risk in areas that are downstream from them by channeling floodwaters; second, levees play a role in erosion because they prevent sediment and nutrients in the river from being deposited into coastal areas. This lack of replenishment from sediment and nutrients contributes to subsidence and land loss (Nittrouer et al. 2012; Yuill et al. 2009). Levees along major rivers are designed and built by the U.S. Army Corps of Engineers (ACOE) with funding coming from Congress. The ACOE is the federal organization charged with keeping U.S. waterways navigable and lessening flood risk. For a long part of its history, the ACOE had an organizational policy stipulating that it would only build levees for flood control, a move that contributed to the leveeing of the lower Mississippi River (Barry 1997; Ruess 2004). While the federal government did finance and build parts of major systems, levees in Louisiana were also built by the state government and private landowners. Additionally, levees were widely supported among local governments and local elites, including developers and bankers. The subsidizing of levee

building was in alignment with elite interests because elites wanted to assure investors that industrial infrastructure would be safe (Barry 1997; Lewis and Ernstson 2019).

New development booms on the coast

Louisiana's economy is closely tied to global oil markets and is subject to boom and busts cycles (Rickman and Wang 2020). The first major bust occurred in the 1980s. With offshore drilling, Louisiana's economy picked back up in the 1990s, but has been in decline since then. Many oil and gas companies have moved out of Louisiana (Potter 2019). However, there is still a large amount of investment and development happening in coastal areas. Investment is largely going toward the construction of import-export ports and Liquified Natural Gas facilities along the Mississippi River and the Calcasieu-Sabine Rivers. These facilities connect liquified natural gas and other petrochemical products to national and global markets.

Cameron Parish, in the southwestern corner of the state, is home to almost $84 billion in capital influx from the fracking boom, including the Sempra Liquified Natural Gas plants in Hackberry. These $10 billion facilities will export 1.7 billion cubic feet of natural gas to European and Asian markets every day. This region of the state was home to Arlie Hochschild's ethnography, "Strangers in Their Own Land," in which she analyzed, among other things, the right-wing political orientations of residents and their attitudes about environmental regulation. This area is also a key focus area for conservative politicians. In 2018 then-President Donald Trump held a rally in Lake Charles where he praised the energy sector and exclaimed that if democrats and proponents of the Green New Deal were elected, then "everybody in the room will be fired" (Schwab 2019).

All this investment is happening despite gloomy predictions about the coast, such as how it will fare with increased tropical storm activity. Hurricanes have the potential to severely damage oil and gas facilities, and those damages could result in the environmental contamination of surrounding communities. This is already happening. In August 2020, Hurricane Laura, one of the strongest hurricanes (in terms of wind speed) in Louisiana's history, made landfall in Cameron parish on the western side of the state. After the storm, chemical plants in the Parish's industrial corridor caught fire and oil and gas wells were compromised, putting the health of many Black and low-income Louisiana residents in jeopardy (Schwartz and Tabuchi 2020).

In the eastern portion of the state, Port Fourchon is the industrial behemoth. One-fifth of the nation's oil and gas passes through this port, 50% of the nation's refining capacity is connected to a large pipeline system in the area, and operations based out of the Port serve 100% of energy exploration and production in the Gulf of Mexico. One official told me that every day Port Fourchon is out of commission, 500 million dollars of economic activity is lost. In Plaquemines Parish (Southeastern Louisiana by the mouth of the Mississippi river) there are a number of new Liquefied Natural Gas export terminals slated for construction, adding to the existing dense concentration of petrochemical refineries, chemical plants, power plants, and shipping businesses that exploit the waters of Mississippi River to supply their operations and to reach global markets.

Louisiana's Political-Economic and Social Landscape as Backdrop

The oil and gas, chemical, and navigation industries have had, and continue to have, considerable influence in Louisiana politics. State legislatures often make decisions that have a huge bearing on local environmental conditions and local revenues, such as how much in tax breaks industries moving into Louisiana will receive (Sneath 2020). At present, the state of

Louisiana entices companies by exempting them from local property taxes for up to 10 years, and the state's regulatory apparatus has done little to control development. State legislatures are also heavily influenced by corporate lobbyists, and prominent players regularly rotate in and out of industry and government (Maldonado 2018). Throughout its history the state has seldom denied any permits for construction in the coastal zone and has rarely enforced regulations that would mandate different construction or production practices (Arnold 2020). For example, the state could have mandated that canals be dug using different technology. However, oil and gas companies resisted because they claimed those technologies cost more (Houck 2015).

With the power of industry, and given Louisiana's landscape of racial and ethnic discrimination and marginalization, frontline communities have suffered numerous environmental and social injustices. At the same time, an important element of this story is that frontline communities also resist and challenge Louisiana's power structure. Environmental justice scholars often use case studies from Louisiana to demonstrate what activism at the intersection of race, class, gender, and the environment look like (Frankland and Tucker 2013; Cole and Foster 2001; Kurtz 2007). This is the backdrop to Louisiana's response to coastal land loss. Deeply entrenched power inequalities, histories of cultural marginalization, and contestation and resistance are relevant for understanding land loss and climate adaptation politics today, as this dissertation will show.

CHAPTER 3

RESEARCH METHODOLOGY

The previous chapter described the research context and laid out the historical and social processes leading to environmental inequalities on the Louisiana coast. In this chapter, I explain the methodological approach I use to study the field of organizational actors involved in coastal restoration, protection, and risk reduction. An empirical objective of this dissertation is to illustrate how this field—its membership, governing processes, discursive emphases, and material actions—came to emulate and support Louisiana's existing power structure while remaining legitimate across a wide range of stakeholders. Secondly, this dissertation seeks to illuminate how actors currently support this structure and how this relates to the claims of frontline communities. Finally, I aim to show how actors with less power discursively resist, challenge, and acquiesce to this structure, and how this relates to environmental justice.

Meeting these empirical objectives requires qualitative methods. First, I construct a historical narrative to analyze how discursive and material power relations shaped the field and its approach to land loss since the problem was discovered. I use archival materials to compare the field's discourse and practice over time and interpret these changes through a neo-Gramscian lens (Levy and Egan 2003; Levy and Scully 2007). Turning to the present, I use ethnographic methods to uncover discourses that are meaningful to organizational actors, to analyze actors' discourses in relation to their material actions, and to evaluate implications considering Louisiana's political-economic and social context. Drawing from critical approaches to discourse analysis (Fairclough 1995; Leitch and Palmer 2010; Mumby 2004; Phillips and Harding 2011), and critical ethnographic and interpretive approaches (Schwable et al. 2000; Soyini 2005; Thomas 1993; Weber 2010), I focus on the productive aspects of discourse—how it functions to

maintain status boundaries, rationalize contradictions, rearticulate meanings, and naturalize inequalities. Discourse here refers not only to the content of texts, but also to ways of speaking and interacting that convey and produce meaning (Alvesson 2010; Fairclough et al. 2011; Hardy and Maguire 2016). Additionally, the analysis of discourse includes what is not said and done, because discursive processes privilege some meanings, while excluding others. (Phillips et al. 2004). These methods are "critical" in the sense that the objective is to interrogate hidden or commonplace dimensions of power that contribute to societal inequality and oppression. They are rooted in the intellectual traditions of the Frankfurt School and post-Marxist cultural studies, although critical discursive methods engage with a broad range of sociological theories (Kinchloe and Mcaren 2000; Thomas 1993; Wodak 2004).

In this chapter I detail how I identified stakeholders and research participants, collected documents, conducted fieldwork and interviews, and analyzed data. I describe these processes in different sections; however, I do not mean to suggest that these processes were mutually exclusive. Rather, these processes were iterative and overlapping. I cycled back and forth from conducting background research, interviewing, writing fieldnotes, coding texts, and analyzing emergent themes as I revised my understandings of what was happening in the field. In all, I gathered and analyzed over 150 documents, conducted 82 in-depth interviews, and spent a total of 4 months doing fieldwork in coastal Louisiana.

Data Collection

Identifying stakeholders and compiling documents

The first step of this research involved sketching the organization field involved in coastal land loss and risk reduction to identify who coastal stakeholders are, whom I could

contact for information or interviews, and what types of events I could attend to accomplish my research objectives. An organizational field can be thought of as a network of organizations involved in a particular area of social life that encompasses both constraining and supporting partners (DiMaggio and Powell 1983; Scott 2014). A variant of this concept, called Strategic Action Fields, was developed by Fligstein and McAdam (2011) to emphasize the dynamism of organizational fields that results from conflict and competition between incumbents and challengers. The term has been used to understand changes in the construction industry, the health care field, cultural industries, recycling programs, and the Civil Rights Movement (Candido et al. 2019; Fellows and Liu 2017; Spence et al. 2017). Since Strategic Action Fields are both real and constructed social structures (Fligstein and McAdam 2011), I had to pay attention to how the field is conceptualized by others, and how this may, or may not, align with empirical reality. To compile a thorough listing of coastal land loss organizations, I used multiple sources of data to triangulate accounts and information.

I first identified organizations directly involved in the design, construction, and/or implementation of coastal risk reduction projects. I also identified organizations that were less directly involved, but still had a clear connection to land loss. This list included the following: organizations involved in producing knowledge about land loss; organizations designing, building, and coordinating the implementation of coastal risk reduction projects; organizations involving the public in projects; organizations supporting or opposing projects; funders of projects; contractors on projects; news organizations that reported on projects; and finally, community organizations whose missions intersect with coastal hazards and coastal land loss, or that serve coastal communities.

To begin compiling this list, I gathered documents (including news articles, press releases, promotional materials, scientific papers, reports, newsletters, and non-fiction books) from the Louisiana Marine Consortium Library database and from a search of the Nexis Uni database through the University of Colorado Library System. For these searches, I used variants of the search terms "Louisiana Coastal Land Loss" and "Louisiana Restoration and Protection." I also pulled from non-fiction books about Louisiana's coastal land loss to identify organizations and individuals mentioned across these sources. These books included *Saving Louisiana?* by Bill Streever (2001), *Bayou Farewell* by Mike Tidwell (2003), *Holding Back the Sea* by Christopher Hallowell (2005), and *American Energy, Imperiled Coast* by Jason Theriot (2014). Table 1 lists the organizations I identified from these early searches and includes federal, state, and local governmental organizations; national, regional, and local non-profits; research and academic institutions; philanthropic organizations; industry groups; and media organizations.

Once I identified these organizations, I also followed them on social media (Twitter and Facebook), checked their websites weekly, and signed up for newsletters and email listservs to learn about events that were happening and to gather additional texts for analysis. I also scoured Louisiana's latest Coastal Master Plan (2017), and its appendices (Appendix G1-G6) to identify community representatives I might be able to track down to request an interview. These appendices had meeting transcripts from three different public hearings, one in Southwestern Louisiana, one in Southcentral Louisiana, and one in Southeastern Louisiana. The appendices also had copies of written public comments from individual residents and organizational representatives. To request interviews, I emailed or called individuals using contact information that was listed on their organization's webpage or social media page. In my emails or phone calls, I introduced myself and my research, and requested to schedule an interview. Before the

interview, I explained to these individuals that I would not identify them by name in the dissertation and that I would take steps to keep their identity confidential when

Table 1. Organizations identified as being part of the field of land loss actors.

Organization Sector	Examples of Specific Organizations
Local non-profit organizations focused primarily on coastal restoration and protection	• Coalition to Restore Coastal Louisiana • Lake Pontchartrain River Basin Foundation • Restore or Retreat • Barataria-Terrebonne National Estuary Program
Research and academic organizations	• Louisiana Sea Grant • Louisiana State University Center for River Studies • The Water Institute of the Gulf
Government organizations and groups	• Louisiana Coastal Protection and Restoration Authority • Louisiana Coastal Protection and Restoration Broad • Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation • Coastal Wetlands Planning Protection and Restoration Act Task Force
Community based organizations and environmental justice/advocacy organizations	• Lowlander Center • Coastal Communities Consulting • Zion Travelers Cooperative • Mary Queen of Vietnam Community Development Corporation • Lower 9th Ward Center for Sustainable Engagement and Development • Wetlands Discovery Center • Healthy Gulf • Gulf South Center for Law and Policy
Funding organizations and national environmental organizations	• Walton Family Foundation • Foundation for Louisiana • Environmental Defense Fund • National Audubon Society • National Wildlife Federation
Federal, state, and local government	• U.S. Army Corps of Engineers • U.S. Geological Survey • National Oceanic and Atmospheric Administration • Louisiana Office of Economic Development • Parish Council Members
Industry and quasi-governmental/private organizations	• Oil and Gas Companies • Port Commissions • Seafood Task Forces • Private Contractors
Media organizations	• *The Times-Picayune New Orleans Advocate*

writing the results. This was done to encourage individuals to speak openly about their work and to mitigate any risk that an individual could be retaliated against for speaking critically about their organization.

Over time, the information I gathered about the field grew as I started conducting semi-structured interviews with representatives from these organizations and as I started fieldwork. Data collection proceeded in a snowball-like manner. Participants informed me of additional reports and papers to read and meetings taking place and identified additional colleagues to interview (and sometimes connected me with them). I let these developments further complement the purposeful data collection guided by my outline of the field. It should be noted that I was not able to interview a representative of every single organization I identified, nor do I claim that my representation of the field is exhaustive. The field is expanding and reorganizing constantly. However, I was able to identify the organizations and actors most relevant for this research project. That is, organizations mentioned across sources as being the main players in coastal land loss and risk reduction; organizations that have authority to implement projects in Louisiana's coastal zone; organizations that handle the lion's share of funds for restoration, protection, and coastal risk reduction projects; organizations that serve vulnerable frontline communities (communities outlined in the preceding chapter); and organizations that have participated in coastal planning processes since land loss was first identified as a problem.

Early fieldwork: summer 2018 and 2019

In the summers of 2018 and 2019 I traveled to coastal Louisiana to get further acquainted with the coastal landscape, conduct ethnographic interviews, collect documents, and observe and participate in land loss related events. During this early phase of the research, I relied on individuals in my personal network to broker introductions with stakeholders and with coastal

residents. These individuals I knew were academics, practitioners, and government staff who were frank about their concerns that the land loss crisis was dire, and they agreed to help connect me to people they knew. One informant in particular (who I refer to in the dissertation as Chuck) intimately knew the coastal landscape through his work and was also quite well connected to locals in coastal communities. Together we visited small grocery stores, local eateries, and other local establishments and made small talk with coastal residents. These outings were a way for me to meet residents of coastal towns and villages and helped me to understand the social landscape. Chuck also took me to visit marsh creation and shore stabilization sites, restored islands, sites of a planned community relocation, fishing marinas and docks, and sites of proposed flood control structures in the towns and villages of Chauvin, Cocodrie, Isle de Jean Charles, Pointe-aux-Chenes, Houma, and Dulac. Sites were chosen by Chuck based on his own knowledge of the coast. These sites are all located in the southcentral and southeastern part of the coastal zone. Regions that have the greatest number of active restoration and protection projects (93 active projects compared to 16 in the southwest) (CPRA 2020a). Wetlands in this region are sinking the most quickly and have deteriorated the most overtime (measured by millimeters subsided per year and square acres of wetlands lost) (Couvillion et al. 2017; Nienhuis et al. 2017).

In 2019 I returned to coastal Louisiana for two months. I mainly stayed in facilities at the Louisiana University Marine Consortium (located in Cocodrie). There, I continued research in the Consortium's library, attended public meetings and events in the surrounding areas, and volunteered at wetlands restoration events. The volunteer events were particularly informative. At these events, I introduced myself to coastal scientists and non-profit employees as a student doing my dissertation research on land loss. These individuals were coordinating with state agencies and local communities to build small-scale restoration projects, such as a small patch of

forested wetlands and an oyster shell reef along parts of the shoreline. These volunteer events also provided a way for me to build rapport with community leaders, since these projects were important to local communities. For instance, one restoration project was coordinated through a partnership between a restoration non-profit and a tribal community. Tribal elders and families came to the event and expressed their appreciation that volunteers were willing to toil in the hot Louisiana summer to help protect sites they valued. I also attended public meetings in southcentral areas of the state (Cade, Lafayette), attended an award ceremony for "coastal stewards," and conducted interviews with non-profit employees and government administrators.

At these events, I was able to see in person how individuals discussed land loss in public, and I saw how they fielded questions when asked about what is causing land loss. These moments were sometimes surprising. For instance, at one event, a scientist working for a restoration non-profit asked a crowd of volunteers what caused land loss. One volunteer with arms crossed around their chest let out a scoff, saying "Shell." They then pointed to a tent bearing sponsor logos, of which Shell Oil was one. I thought in this moment the scientist might downplay the significance of extractive activities when it came to land loss. I knew their nonprofit organization framed the leveeing of the Mississippi River as the major driver of land loss in some of their media materials, and I thought this would mean they also downplayed how oil and gas companies carved up the marshes and contributed to erosion. I watched as the scientist, without flinching, said yes and that oil and gas companies, like Shell, had played a major role in land loss. The scientist then posed another question to the group, asking if anyone could explain exactly how canals caused erosion of wetlands. After some silence, the scientist explained how canals altered the hydrology of the coast, hastening deterioration of wetlands and marshes. The scientist went on to explain additional factors contributing to land loss, but never

attempted to minimize the role canals played. The scientist then said that river diversions and marsh planting events, such as this one, were important "tools" in the "restoration toolbox."

This event helped me to check my preconceptions. It also helped me to think more deeply about this situation; the interaction signaled that the relationship between canals and land loss might not be as controversial as I thought it would be, and that outright denial of what oil and gas companies have done was not happening. But, what remained unsaid in this situation was why remediating the canals is not a tool in the restoration toolkit and why oil and gas companies won't fund large-scale remediation efforts.

Fieldwork in winter 2020

In January of 2020, I again traveled to Louisiana for fieldwork. For this trip, I spent time in New Orleans and Baton Rouge, where many of coastal organizations have offices. I conducted interviews with employees of the Coastal Protection and Restoration Authority, non-profit employees, federal employees, scientists, and social scientists. I also attended public meetings in Southcentral and Southeastern Louisiana put on by the Coastal Protection and Restoration Authority Board, the Governor's Advisory Commission on Coastal Affairs, and local levee boards. I also accompanied my key informant Chuck on a trip to a restoration site near Grand Isle.

I had plans to stay in Louisiana for several months and to do restoration site visits and more observations in Southwestern Louisiana. Unfortunately, my fieldwork in Louisiana was cut short due to the Covid-19 pandemic. Louisiana was as an early hotspot for the virus. Early in March cases accelerated, and the state had a high per capita case and mortality rate compared to other parts of the country (Silverman 2020). Some individuals with whom I had scheduled interviews with went into quarantine in early March because they had been exposed or preferred

to work from home. Not long after this, Governor John Bell Edwards issued a state-wide stay at home order. At this point I returned to my home in Boulder, Colorado. In Boulder, I continued to do interviews remotely (over the phone and over videoconference) and I observed and participated in virtual events. While the pandemic did alter my research plans, I was still able to gather a substantial amount of data when I was in Louisiana. A summary of organized events and outings I attended over the summers of 2018 and 2019 and in 2020 is shown in Table 2.

In-depth interviews

A main source of data I collected were in-depth interviews. In total, I interviewed 82 people for this dissertation. Interviews yielded narratives and discourses used by individuals in the organizational field to justify and explain their organization's approach to land loss. Interviews also gave me a chance to witness whether individuals spoke casually about topics that I believed could be contentious, such as the role the oil and gas industry played in land loss or about the controversy over sediment diversions. Interviews were tape-recorded and then transcribed.

My sampling strategy was purposeful. I sought out a diversity of opinions from individuals in different positions, explicitly asking to be connected to people who might have different views than the person I just interviewed. This method of searching for cases that appear to not fit with others helps to capture a robust understanding of a social setting (Rubin and Rubin 2005). However, I was not just sampling for breadth. I was also aiming for depth with my interviewees and sought out individuals who worked very closely on projects that are central to Louisiana's land loss response, such as the Master Plan and sediment

Table 2. Observations and participation: organized events and outings with informants in coastal Louisiana

Date	Place	Description
June 2018	Cocodrie	Pirogue Trip with Johnnie and Louisiana University Marine Consortium tour
June 2018	Grand Isle	Grand Isle outing with key informant
June 2018	Chauvin, Robinson Canal, Dulac, Point-aux-Chenes, Isle de Jean Charles	Day visiting coastal villages and restoration sites
May 2019	Lafayette	Coastal Wetlands Planning Protection and Restoration Act Task Force meeting
May 2019	New Orleans	Coastal Protection and Restoration Authority traveling exhibit at Jean Lafitte Historic Center
May 2019	Cade	U.S. Army Corps of Engineers Southcentral Coastal Louisiana Flood Risk Management Study meeting
May 2019	Baton Rouge	Coastal Protection and Restoration Authority Board Meeting
May 2019	Baton Rouge	Coastal Stewardship Award Ceremony
June 2019	Houma	Terrebonne Parish Council meeting and presentation on restoration sites
June 2019	Lower Plaquemines Parish	Marsh outing with local boat captain
June 2019	Bayou Bonfouca, Slidell	Restoration volunteer event
July 2019	Pointe-aux-Chenes	Restoration volunteer event
July 2019	Baton Rouge	Sediment Diversion Working Group meeting
July 2019	Chauvin	Restoration site visit pirogue trip, trip to flood control structure
January 2020	New Orleans	Coastal Protection and Restoration Authority Annual Plan meeting for Southeastern LA (viewed online)
January 2020	Houma	Coastal Protection and Restoration Authority Annual Plan meeting for Southcentral LA (viewed online)
January 2020	Lake Charles	Coastal Protection and Restoration Authority Annual Plan meeting for Southwestern LA (viewed online)
January 2020	Bayou Sorrel	Atchafalaya Basin Program meeting
January 2020	Henderson	Atchafalaya Basin Program meeting
January 2020	Baton Rouge	Coastal Protection and Restoration Authority Board Meeting

January 2020	New Orleans	Army Corps of Engineers Flood Risk Re-Evaluation Study Public Meeting
January 2020	Raceland	North Lafourche Levee District meeting
February 2020	Grand Isle	Outing to restoration sites, laboratory, and historic sites with key informant
February 2020	Baton Rouge	Press conference on Governor's coastal priorities (viewed online)
February 2020	Baton Rouge	Louisiana State University Seminar on integrating science into Master Plan
February 2020	Baton Rouge	Governor's Advisory Commission meeting
February 2020	Baton Rouge	Coastal Protection and Restoration Authority Board meeting
March 2020	Remote	Coastal Protection and Restoration Authority Board meeting
April 2020	Remote	Coastal Protection and Restoration Authority Board meeting
April 2020	Remote	"Last Call for Bayou" film presentation and panel discussion
June 2020	Remote	Coastal Protection and Restoration Authority workshop on Master Plan modeling
May 2020	Remote	Coastal Protection and Restoration Authority Board meeting
June 2020	Remote	Coastal Protection and Restoration Authority Board meeting
July 2020	Remote	Army Corps of Engineers Mid-Barataria Sediment Diversion scoping meeting

diversions. I recruited individuals who worked on projects for long periods of time or who had very specialized knowledge about projects. Moreover, I sought out individuals who were deeply embedded in communities, such as individuals who were fixtures at local churches or were elected leaders from the community. Interviewees included individuals who worked in or with the organizations listed in Table 1. They are coastal scientists and social scientists working at Universities or research institutes on land loss related issues and restoration projects (13); engineers, planners, and project managers working on computer modeling of the coast, designing river diversions, and implementing the Master Plan (13); state and federal government

administrators coordinating coastal funding and public engagement programs (7); local officials (2); coastal non-profit employees (working in science, policy, communications, administration, outreach, philanthropy, and upper-level management) (26); independent researchers and journalists (3); industry and economic development representatives (2); and community leaders and organizers (15). In this sample of interviewees, I identified 48 as women and 33 as men. Of this sample, 67 identified as white or white and Cajun, 9 as Black or Black and Creole, 3 as Vietnamese American or South Asian, and 3 people identified as Native American or Native American and Creole.

Overall, I found most people receptive to my inquiries and eager to help with my research. I believe that because I presented myself as a student doing dissertation research, individuals in the field were sympathetic to my requests. Many individuals told me that they hold academic research in high regard and even said things like, "I was once in your shoes and want to help," referring to their own pursuit of an advanced degree. One participant told me they are generally hesitant about speaking to people about their organization, but they agreed to let me interview them because they knew it was important for research on land loss to "get it right."

I also relied on personal connections to broker introductions. This was helpful for making contact with individuals who were busy and didn't normally respond to these types of inquiries and this was also helpful for getting interviews with community leaders. For tribal leaders, I reached out to individuals I knew who worked closely with tribal communities and who are trusted by tribal leaders and elders. They let me know who I should approach and how. I also learned that I would not need to get approval from a separate Institutional Review Board because I was not conducting research specifically on tribal traditional ecological knowledge or doing research that would explicitly identify the location of sacred sites.

I did encounter some barriers when asking for interviews with government staff. I learned that people in government agencies are told to direct interview requests to a communications director. Furthermore, one staff member of the Coastal Protection and Restoration Authority told me that any document in which staff are quoted would need to be read and approved by upper-level management. To move forward with staff interviews, I reassured individuals that I was not asking for official statements from them as spokespersons, but instead I was asking them as individuals to share their experiences and thoughts about their work. I also explained that I was not producing a list of the names of people I interviewed and that I was not discussing with others who I interviewed for this project. After I explained this, staff agreed to be interviewed.

This type of reluctance is not unique to this context. Harrison (2019) found in her fieldwork with state and federal government staff that they are cautioned against doing interviews with researchers and the press. Harrison also notes that government staff are highly scrutinized by their agencies and fear retaliation that might happen if their identity and critical opinions are revealed to other coworkers. In my fieldwork, I also found a few cases when individuals stressed that they did not want certain quotes linked to their name. They did not express fear this might negatively affect their job status or performance evaluations, but they said they still felt more comfortable remaining anonymous. After I explained how I would keep their identities confidential, I found that staff were overall eager to share information about their work. I also found that most people I interviewed insisted in interviews that everything they said was "their personal opinion." There were a small number of individuals who expressed little concern to me about being quoted or named. I heard phrases like, "at this point I don't care who hears this" or "everybody knows what I have to say anyway" several times during these interviews.

There were two individuals that I requested to interview who declined after multiple requests. These two individuals told me that they were no longer actively involved in coastal land loss related work. One person told me that they "needed a break" from giving interviews, and the other said that they wished to be left alone. However, they did offer other names of people I should speak to. There were also several interviewees who expressed strong wishes not to be tape-recorded. They told me that they were not necessarily worried that the tape-recording could be used against them somehow, but that they would probably self-censor themselves unwittingly if being recorded. After discussing this, we agreed that I could take detailed notes and paraphrase their quotes.

I used a semi-structured interview guide for data collection. However, I was flexible about how I asked questions, let the interviewee guide the flow of the interview, and used probing questions to get participants to elaborate on topics in their own words. As Lofland and Lofland (1995) describe, this strategy is useful for getting rich data from interviews. In this context, rich data meant detailed accounts of peoples' experiences and narratives that go deeper than the official rhetoric represented in documents. However, I was also looking for when people's narratives aligned with official discourses or when responses to certain questions were vague or rote. It should also be noted that this research fundamentally has to do with power, but I did not push interviewees to discuss power explicitly if it did not come up in the interview. I wanted to understand what topics were constructed as political or as something else, and I wanted to see how individuals did or did not gravitate towards the subject of power (such as the power held by industry or political-economic elites) when discussing challenges and concerns about addressing coastal land loss.

Fieldnotes

In keeping with an ethnographic approach to data collection, I kept a fieldwork journal and regarded writing fieldnotes as an important part of interpreting what was meaningful to individuals working on coastal land loss (Emerson et al. 1995). During events and interviews—if it was appropriate, and if I was not working with my hands—I carried a small notepad with me and jotted down words or phrases I heard and small snippets of what I saw. After events and interviews, I immediately got out a notebook or my laptop and started writing more detailed accounts of what transpired. If I needed to drive a long distance after meetings, I would dictate notes to myself. Then, when I would get to where I was staying for the night, I would write down as much as I could remember. The dictations and jottings helped to jog my memory and recall details about the people, places, and interactions that I had witnessed or been a part of. I also wrote fieldnotes based on my own exploration of the coast, such as after relaxing over a beer with locals or driving through towns and villages.

When writing fieldnotes, I would try not to make generalizations about what was happening and aimed instead to capture rich descriptions of what people said, how they said it, reactions, and other surprising interactions or conversations that struck me as meaningful. At some events, like public meetings, I focused on catching names of organizations and programs, as well as the content of discussions so I could know what topics and concerns are frequently discussed between government employees and the public. I also observed how people took in information and what seemed to be important. For example, I paid attention to what kinds of questions or exchanges in public meetings might coincide with a deep silence in the room, or prompt individuals to put down their phones and stop typing. I also wrote notes after interviews. The purpose of this was to remember details about a person's body language, tone of voice, or

any other expressions an interviewee had that conveyed emotions about topics we discussed. I used the fieldnotes, in addition to the content of the interviews and texts I compiled, to start the process of analysis.

Analysis

Coding and memos

Data for analysis included interview transcripts, fieldnotes, and the other texts (e.g. documents, reports, social media posts) I compiled. I viewed these texts not as objective representations of land loss, but as works that selectively emphasize and de-emphasize certain points. Data from texts also formed the basis for a temporal narrative of the land loss organizational field, its discursive emphasis and material practices, and how changes to material structures (funding mechanisms, legal ruling, regulations, technologies, etc.) or field membership coincided with shifts in discourse and practice.

I first coded texts using a process of open coding to identify initial themes and to organize texts according to their contents. For example, I made tables of texts with excerpts from these materials (such as news articles, press releases, podcasts, social media posts, blogs, reports, and scientific studies) and that listed discursive themes such as "preserving the working coast" or "using the river." The tables also listed authors and affiliations, when the texts were written or produced, and other notes. I also used NVivo to code interview texts and fieldnotes. In NVivo, I generated codes from discourses and narratives that came up frequently in interviews and in fieldwork such as "Master Plan is objective science," "climate bellwether," "for the greater good," and so on. As fieldwork and analysis progressed, I reorganized codes. Also, as I added additional texts to the analysis, I focused the coding process to elaborate on analytically interesting themes such as "Master Plan does the most good" and "articulating land loss as

problem caused by levees." (Emerson et al. 1995). I also started writing analytical memos based on these themes. Memos pulled together excerpts from texts and fieldnotes and analyzed similarities and differences among them. I then linked the analytical memos and connected them to theory and my research objectives. These writings formed the basis of the findings chapters.

Writing considerations

I took steps not to describe participants in ways that would reveal their identity, but I did use pseudonyms that matched the gender identity of participants in most cases. My sample was large enough that this would not risk identifying individuals, although if I thought there might be an instance where a person could be identified easily by their gender, I used the pronoun "they." I also use general descriptors of organizational affiliations or of someone's professional role when elaborating on quotes or describing interactions in the findings chapters. I also do not always identify the racial/ethnic identity of a person when describing narratives. I did explicitly mention an individual's racial or ethnic identity when it was relevant to the analysis and if identification of that individual was not a concern. Some of the organizations in the land loss field have very few (1 or 2) people of color on their staff. These individuals did express some concern that they could be easily identified, so I took caution to protect their identity in those instances by using very general descriptions of what they did in the organizational field.

CHAPTER 4

THE COASTAL ACTION FIELD AND THE HEGEMONY OF THE MASTER PLAN

In this chapter, I answer the following question: How did action to address land loss become organized around a coastal-wide "Master Plan" that does little to challenge Louisiana's petro-dominated power structure? Drawing from archival and media documents and informant interviews, I show how an organizational field, the Coastal Action Field (CAF), made the Master Plan (MP) its central focus. I conceptualize the field through a neo-Gramscian lens and contend that the MP is a *hegemonic* project (Levy and Egan 2003). I show that it is hegemonic in the sense that the MP is the dominant focus of the CAF; the state government built organizational capacity around implementing the MP; it receives substantial financial resources from state and federal coffers; and it is endorsed by major environmental non-profits and charitable foundations. I show that it is also hegemonic in the sense the MP represents an unstable consensus that is forged between actors with unequal levels of power, including industry and political-economic elites, politicians, government administrators, scientists and engineers, civil sector organizations, and coastal communities.

This chapter proceeds as follows. I first lay out a historical narrative of the Coastal Action Field, including how key developments and historical events shaped its evolution. At each historical juncture, I discuss how events coincided with a changing discursive emphasis, and I analyze the implications for power relations among actors in the field. Table 1 summarizes these junctures, which I group into four broad stages: field formation, oil and gas industry counterreaction; creation of the MP and the "working coast" discourse; and the building out of the MP through organizational supports. This narrative shows that some influential figures in coastal restoration originally had an oppositional stance toward the oil and gas industry, calling

for regulation of its operations. As powerful players (e.g. bankers, philanthropic organizations, large environmental NGOs) became more involved in restoration activities and were able to wield power, the field's critical focus on regulation waned. Additionally, the political nature in which coastal communities engaged with government structures changed over time (shifting toward more participatory engagement to build consent), and changes in material (financial, technological, environmental) conditions channeled action towards technocratic and engineered solutions.

I argue that powerful actors shaped discourse around the cause of land loss and the oil and gas industry's relation to coastal restoration and protection. This, in conjunction with changing material conditions (such as an increase in funding following disasters), allowed elite members of the CAF to construct the MP as a scientifically legitimate and socially supported solution to land loss. This historical narrative explains a key contradiction—how the MP is framed by supporters as *both* pragmatic and aspirational. This also explains why the MP is not scrutinized as unjust, even though it serves elite interests and suffers from a "democratic deficit" (Colten 2019), meaning that frontline coastal communities with the most to lose are only tangentially involved in its design and implementation. This narrative differs from other critical descriptions of the MP (Gotham 2016a; Houck 2015; Nost 2019; Randolph 2018) because it offers a novel theoretical explanation of how the MP came to be the consensus project of the Coastal Action Field amidst challenges and objections. At the end of the chapter, I also present a schematic of the field in its current form.

Table 3. Coastal Action Field: summary of historical narrative

Time Period	Key Events and Actions	Discursive Emphasis	Implications
Field Formation 1960-1990	Identification of land loss problem. Industry wielded power to shape state's regulatory apparatus. CRCL and "restoration movement." State and federal wetlands restoration programs began.	Land Loss as Man-Made Crisis Requiring Action.	Nascent field formed to address problem of land loss, including through regulation, but industry counters attempts to regulate. Mechanisms for community engagement institutionalized as state government developed formal coastal program. Program did not have representation from frontline communities.
Industry Counterreaction 1990-2000	Industry reports and restoration campaign released. America's Wetland Foundation founded. Economic elites more involved in field, served in government administrative positions.	Preserve America's Energy Coast and National Treasure with Help from Industry.	ACOE targeted as main driver of land loss and field emphasized need to sell the importance of Louisiana to get funding. Community engagement remained limited while industry framed itself as partner.
Creation of Master Plan and "Working Coast" Discourse 2001-2010	Hurricanes Katrina and Rita, BP Oil Spill Disaster. National Research Council and federal agency involvement. Formation of CPRA and creation of the Master Plan. America's Wetland Foundation worked with civil sector to pass revenue-sharing deal passed through Congress (GOMESA).	Protect and Restore Wetlands to Sustain a Working Coast.	Expert panels and bodies lend legitimacy to Master Plan and technocratic approach to coastal risk management. Industry framed as key reason for restoring coast. Disasters provide political opportunities to get funding.
Building Out the Master Plan 2011-present	BP Oil Spill and GOMESA funding coming online. Restore the Mississippi River Delta Coalition formed by Walton Foundation. Water Institute of the Gulf created.	Maintain What Land is Left with Bold Action, Fight Land Loss using Mississippi River.	Emphasis placed on building engineered projects, coastal science, and expertise to preserve what can still be preserved given resource and bio-physical constraints. Community engagement expands to build support and consent.

Field Formation

Identification of the land loss problem and drivers

Coastlines and river deltas are not fixed systems and are shaped by ecological and bio-physical processes that both build and deplete land. Rivers create and sustain deltas as sediment is deposited from overbank flooding and other processes; however, deltas also sink from the compaction of sediment and exposures to wind and wave energy. The Louisiana coastline itself has been in flux throughout geologic history, as global sea levels stabilized and as the Mississippi River shifted course, creating new land masses or deltaic "lobes" (Roberts 1998). For example, the Mississippi River's most recent path that created the Plaquemines Delta (south of New Orleans) and the "Birdsfoot" delta, (where the river meets the continental shelf) is less than 800 years old (Boesch 2020). For a few hundred years, then, the coastline remained relatively stable.

In the early 20th century, researchers started to be concerned with trends in Louisiana's shoreline; they understood that changes to coastal hydrology, delivery of sediment, and global sea levels could influence the balancing of erosion and accretion that sustained coastal areas. The early 20th century also brought rapid changes to Louisiana's coast due to the proliferation of industrial activity. Wildlife and fisheries experts working for the state of Louisiana, such as Percy Viosca and Nelson Gowanloch, began raising alarms about the negative effects of oil and gas development as early as the 1920s and 1930s (Viosca was later fired by the infamously corrupt Governor Huey P. Long, but then reinstalled with another administration). This was a period in which the state rapidly expanded oil and gas production and the federal government began leasing public lands to individuals and oil and gas companies (Freudenburg and Gramling

2011). The oil and gas industry quickly became Louisiana's main source of revenue, funding large-scale public works programs and other public services while enriching corrupt politicians (Houck 2015; McCartney 2008; White 2006). Development activities, such as the drilling of wells and the digging of canals, disrupt the hydrology of coastal wetlands and contributes to erosion. This happens because when canals are dredged, the openings introduce salt water into freshwater ecosystems. Additionally, when canals are dredged, displaced soil is piled right alongside the canals. These piles of soil cause salt water to be retained in freshwater areas (known as impounding), further exacerbating erosion. The withdrawal of fluids from below ground also contributes to subsidence, or the sinking of land from soil compaction. Oil and gas companies were not the only actors involved in carving up the wetlands; canals were also dug for logging, navigation, and flood-control activities (Hemmerling 2017). However, oil and gas exploration and development remained the most prevalent activity across the whole coastal landscape. Indeed, by the end of the 20th century oil and gas companies carved more than 9000 miles of canals in the coastal zone (Priest and Theriot 2013).

By the 1950s, state officials in wildlife and fisheries posts became concerned with the explosion of industrial activity from oil and gas companies, as the digging of canals and release of pollutants disrupted traditional seafood and trapping industries. Furthermore, companies were allowed to proceed with these destructive practices without interruption from government (Arnold 2020; Theriot 2014). Although wildlife and fisheries experts were raising concern over the local impacts of development, the technology to measure and convey the scope of the impacts remained limited until the 1960s and 1970s, when scientists started to quantify large-scale changes that were happening to the Louisiana coastline (Morgan and Philip 1957; van Beek and Gagliano 1970). The fact that the coast was losing land was made apparent when the federal

government proposed a project to divert part of the Mississippi River's waters to Texas in the 1960s. The Army Corps of Engineers funded researchers at the Louisiana State University Coastal Studies Institute to investigate the consequences of such a river diversion project. In doing this assessment, researchers Johannes L. van Beek and Sherwood Gagliano calculated that the coast of Louisiana had lost an alarming amount of land—495 square miles since the 1930s.

While knowledge about Louisiana's coastal problems was mounting, development activities did not let up. One development project that started in the late 1950s and was completed in the late 1960s was the Mississippi River Gulf Outlet (MRGO). The MRGO was a project sought out by a "growth machine" (Molotch 1976) coalition of local developers, politicians, and industry elites to secure government funding to construct a large canal to accommodate ever larger tankers carrying oil and gas and petrochemicals down the Mississippi River (Freudenburg et al. 2008). According to scientists and engineers (including the Army Corps of Engineers which constructed the canal), the MRGO is responsible for the destruction of tens of thousands of acres of wetlands and partially to blame for the extensive damage that New Orleans incurred from Hurricane Katrina's storm surge (Colten 2009; USACE 2004; USACE 2008). While a number of regulatory changes occurred in the 1970s and 1980s, including the federal government passing the Clean Water Act and the Coastal Zone Management Act, industry (including navigation and shipping industries) nevertheless remained able to develop large swaths of the coastal zone, prompting calls from Louisiana scientists and regulators for more comprehensive and robust coastal management plans (Gagliano 1973; Houck 1983; Boesch 1982; USACOE 1973; USEPA 1987). A key component of such management plans was the implementation of projects designed to restore hydrology patterns and shore up natural features

of the landscape that provide protection, such as barrier islands. Other key components were industrial regulation and management of coastal zone activities.

In sum, scientists working in coastal research institutes and wildlife and fisheries experts began raising concerns about degradation of coastal wetlands at a time of expanding industrial development. Although industrial regulation was sought by scientists and wildlife and fisheries experts, as I explain in the next section, politicians connected to the oil and gas industry were able to wield power to prevent regulations from having any teeth. Additionally, experts who challenged industry by calling for comprehensive reforms to state regulations were incorporated into the state's bureaucratic apparatus in ways that blunted their ability to regulate.

Industry wields power to shape state regulatory apparatus

Legal scholar Ollie Houck describes the oil and gas industry as more than an economic interest, but as the single most important power in Louisiana's history, a "kingdom," that has successfully fought attempts to curtail its operations for almost a century (Houck 2015). He argues that early in Louisiana's history, political and economic elites forged a mutual understanding or "social contract" in which the state would allow the industry to operate unimpeded, and in return, oil and gas revenues would fund the government. Corruption too was widespread as top government officials rotated in and out of industry and trafficked in bribes (Houck 2015; Maldonado 2018). Industry elites and politicians also worked to ensure that the state's bureaucracy was configured in such a way as to be beneficial to industry.

First, industry fought the formation of a separate state agency that would enforce environmental regulations, the Department of Environmental Quality (Hargroder 1983). Although the agency was eventually established, revolving door dynamics and regulatory capture

characterized its operation. For example, the agency's first deputy secretory went on to become a chief lobbyist for the Louisiana Mid-Continental Oil and Gas Association (LADEQ 2021). Even the United States Environmental Protection Agency has criticized Louisiana's regulators, stating that their perspective has been to protect industry from policies it would deem as onerous (USEPA 2011). Additionally, Governor Edwin Edwards[11] worked to ensure that oil and gas regulation would not be handled by that office, as the industry feared the DEQ's mandate to maintain pollution standards would prove cumbersome to its operations (Houck 2015). Instead, Louisiana's Department of Natural Resources (heads of this office also went on to industry lobbying careers) managed oil and gas development; its budget is based on revenue made from leasing minerals on state land, and as such has little interest in curtailing development. To date, it has only denied two permits (later approved on appeal) for the drilling of oil and gas wells (Arnold 2020).

Spurred by the federal Coastal Zone Management Act, Louisiana passed its own set of coastal land use guidelines in the 1980s. Industry initially fought the idea until the political establishment assured executives that they would be able to approve the plans (Houck 2015). Under the administration of Governor Edwin Edwards, the responsibility for developing the coastal zone management standards were moved out of the state's Office of Planning, into the Department of Transportation, which had little expertise in coastal protection. A staff member in the agency and coastal scientist, Dr. Paul Templet, did develop a comprehensive and stringent coastal program. Oil and gas industry lawyers pushed back on the program and cried foul when administrators of Dr. Templet's program tried to deny a dredging permit. Soon after this, the

[11] Louisiana Governor Edwin Edwards was a notoriously corrupt politician. After serving many years in office he was indicted for fraud, racketeering, extortion, and money laundering, among other crimes.

state nixed the program (Houck 2015). The coastal zone management program was then placed under the Department of Natural Resources, where it still resides (LADNR 2021).

Some high-ranking politicians and officials did attempt to put checks on industry. In 1982, the Governor of Louisiana, Dave Treen, introduced a bill that would tax the transportation of oil and gas products moving through pipelines. Industry responded by claiming that such measures would be economically ruinous to the public and used as ammunition the fact that the state had let production go on without disruption for decades (Theriot 2014). The bill failed. Additionally, proposals were also brought to the state legislature to mandate that oil and gas companies remediate lands that were carved up by filling canals back in with the soil (known as backfilling). According to historical accounts, these proposals were openly booed in legislative committees (Houck 2015).

The Coalition to Restore Coastal Louisiana and the restoration "movement"

While attempts at regulation failed, more research was done by scientists confirming that canals dug for oil and gas exploration and development were contributing to wetland ecosystem degradation (Craig et al.1979; Turner and Cahoon 1987) and researchers confirmed that Louisiana's coastline was indeed retreating. This was because of erosion but also because the coast was literally sinking into the Gulf of Mexico (Wicker 1980). Although not mentioned in historical accounts of influential Louisiana environmentalists involved in land loss, the 1982 proceedings of a coastal land loss conference held by the U.S. Fish and Wildlife Service and the Louisiana University Marine Consortium showed that a vocal advocate for regulating industry was a female activist with the Delta Chapter of the Sierra Club, Joan Phillips. Speaking about the weak regulation of the coastal zone, she exclaimed:

> We have had some progress including the adoption of a coastal zone management program and permitting of wetlands activities under this program. But is it working? Are new canals being shortened or eliminated where possible? Are we using all techniques feasible and practicable to preserve and conserve renewable resources? My concern is that we are not presently accomplishing these objectives. Out of 1,300 coastal use permits issued thus far by the Louisiana Department of Natural Resources, two were appealed, but a stay order to halt the activities could not be gained before the appeals were heard by the Coastal Commission (Boesch 1982 p.85).

She also implored scientists and bureaucrats to recognize the unequal ways in which environmental degradation harmed Louisiana communities, although she stopped short of recognizing racial disparities. Although researchers understood how land loss had the potential to disrupt community functionality, there was little involvement of community members in these types of conversations about how best to manage Louisiana's coast (Colten 2019).

In the 1970s and 1980s, officials in state government showed little interest in stopping the main drivers of land loss. They did initiate efforts to restore parts of the coastline by funding small-scale marsh creation projects and calling on the Louisiana Geological survey to create management plans for the coast. They established a Coastal Trust Fund through legislation (LA Act 41) to provide a cost-share mechanism for funding large coastal restoration projects with the federal government. These projects were mainly river diversions, or structures that allow river water to flow into adjacent wetlands through gated levees which are principally designed to reduce salinity levels in wetlands. In their management plans, scientists came up with lists of needed restoration projects, which also included pumping sediment into wetlands, designing diversions to deliver sediment in addition to freshwater, stabilizing sand dunes, creating wetlands through vegetation planting, and shoring up barrier islands. The state did not have the capacity however to build and fund many of these projects, stemming from "mismanagement" and funding constraints (Theriot 2014). Additionally, for years to come the Coastal Trust Fund would

act as a "pass through" account, meaning that the legislature could use the funds for other purposes (Johnson and Murphy 2014).

Efforts to persuade the state to push for more aggressive restoration and coastal management came from a coalition of stakeholders including leaders of Catholic service organizations, environmentalists, community leaders, scientists, and conservationists who formed the Coalition to Restore Coastal Louisiana (CRCL), Louisiana's first restoration-focused non-profit (which is still in operation today). Although framed as a "grassroots movement" by several authors (Hallowell 2001; Theriot 2014; Tidwell 2003), the coalition was also comprised of professionals such as environmental lawyers like Michael Osborne and Jim Tripp of the Environmental Defense Fund (EDF) who had connections to other large environmental non-profits and philanthropic communities (Colten 2019). Nevertheless, community members also influenced the group and framed their concerns about land loss in terms of its social justice implications. For instance, Rob Gorman, a social worker for the Catholic Diocese was a founding member of the coalition and one of its first chairmen. He became involved in the land loss issue when he found out that local fishermen were facing food insecurity as a result of changes to the coastal landscape (Tidwell 2003).

CRCL reports stressed the need for the state to create institutional mechanisms to finance restoration projects, safeguard funds, and regulate industry. The group stated these demands in their report, "Here Today Gone Tomorrow? A Citizen's Program for Saving the MS River Delta Region to Protect Its Heritage, Economy, and Environment" (1989). The 1989 report reads:

> We consider the accelerating loss of coastal Louisiana to be unacceptable. Management techniques and technologies for addressing the root causes of coastal erosion and subsidence are at hand. The purpose of this action program is to delineate a set of bold but realistic resource goals for coastal management and to set forth an action program to attain those goals.

The group also called for broad participation from the public in developing a comprehensive plan to restore the coast. Members of CRCL, like the scientist Paul Kemp, previously worked in Washington D.C. and had connections to U.S. senators. Using these connections, CRCL lobbied the state and federal government. Overall, the group was successful in helping to create the foundation for Louisiana's coastal program, in part because their coalition signaled widespread support for such endeavors.

After urging from CRCL, and with the help of a state-wide marketing campaign, the state formalized its commitment to implementing a coastal restoration plan and enlisted state governmental organizations to oversee the implementation. In 1989, Louisiana legislators approved Act 6, LA RS 49:213 et seq., also known as the Wetlands Conservation, Restoration, and Management Act. This legislation designated the state's Department of Natural Resources as the lead state agency tasked with developing, implementing, and monitoring coastal restoration projects and created a Wetlands Authority to oversee implementation. The state also created another trust fund to finance restoration projects. This trust fund, called the Wetlands Conservation and Restoration fund, was to be funded by state revenues from severance taxes on mineral production. Finally, Louisiana Governor Buddy Roemer created an Office of Coastal Activities to help oversee these efforts. Together, these administrative structures, coupled with civil society actors and scientists, formed the foundation of the Coastal Action Field. Its key project was to develop a comprehensive management plan that would largely reverse land loss by addressing key drivers, including the loss of sediment supply, but also impacts from oil and gas development.

Around the same time, the federal government mandated the protection of wetlands through the Coastal Wetlands Protection Planning and Restoration Act (CWPPRA). The bill was

introduced by Louisiana congressman John Breaux, who was working with Louisiana restoration advocates and members of CRCL. This act created a national program for coastal restoration that was paid for with money collected by taxes on diesel sales for motorboats. CWPPRA, which became Louisiana's main vehicle for creating wetlands and funding restoration projects, established a Task Force comprised of representatives from federal agencies and the state of Louisiana. The Task Force members serve as gatekeepers of the federal funds, selecting priority projects from lists of candidate projects brought to them by local municipalities, the public, and state and federal agencies. Projects are first ranked by parish representatives, then a technical committee selects projects for further consideration, and then projects are finally voted on by the full Task Force. Project selection is based on wetland value assessments that determine the cost-effectiveness of projects (LCWCRTF 2015; Hallowell 2001; Lopez 2009). Input on projects from the members of frontline communities is then limited to making public comments at hearings or submitting comments on proposed project lists.

In sum, as early restoration advocates and supporters were working to implement coastal zone management programs, more evidence was produced by scientists that canals were a major contributor to land loss and that the problem was growing worse. However, this evidence did not result in changes to the state's operations around industrial development. As time went on, a coalition of stakeholders organized themselves and advocated for a state-led coastal restoration program that could be funded in part by the federal government. The coalition had successes, and the state formally initiated a coastal restoration program. The start of the coastal program, including the formation of administrative bodies and a CWPPRA Task Force, brought about formal community engagement mechanisms. These limited public input in restoration planning from racially and ethnically diverse communities most at risk from land loss.

As the next section describes, after CWPPRA was passed, industry took more of an active role in restoration and began to rearticulate land loss as a problem that industry was uniquely able to ameliorate. After CWPPRA's first reports, plans that came out of the program started to focus less on the issue of industry responsibility. Colten describes the CWPPRA Task Force as "easing" its stance on industry by using a "technocratic mantle of objectivity" to naturalize industrial processes that contributed to the crisis (Colten 2019). This means that the technical language in reports, and references to other geologic processes influencing land loss, obscured the fact that much destruction of wetlands was because of unchecked development. As the next section explains, industry used public relations, monetary resources, and legal power to reframe itself as a needed partner in restoration.

Industry Counterreaction

Reframing of land loss and the emergence of "energy coast" rhetoric

The 1990s was a time of political struggle between industry, the state, and environmental advocates; however, during the late 1990s and into the first decade of the new century, industry waged a counterreaction that aimed to obfuscate its culpability in the land loss problem. Industry leaders engaged in greenwashing campaigns and produced and disseminated their own accounts of land loss, framing the leveeing of the Mississippi River by the U.S. Army Corps of Engineers (ACOE) as its main driver. At that time, science was pointing to loss of sediment as a serious problem. The scientific community published findings describing how the coast was sinking while eroding. This sinking is linked to loss of sediment supply from the Mississippi River (Morton et al. 2002; Roberts 1998). Industry was then able to use these findings to shift blame to the federal government and the ACOE for building levees which prevent sediment from reaching

wetlands. This strategy worked, despite the fact that the building of levees was supported by the oil and gas industry and other political-economic elites who benefit from flood protection.

Around this time, the Louisiana Oil & Exploration Company produced a documentary video about land loss, calling out the actions of the ACOE as contributing to a "ticking time bomb," or an impending land loss catastrophe (Theriot 2014). In 1998, the state's latest report on land loss, "Coast 2050 Saving Coastal Louisiana: A National Treasure," (1998) framed land loss as a pending economic disaster, and the report lessened its emphasis on industry's role in creating the crisis. The report also described Louisiana as a "National Treasure," meaning a place of unique ecological importance and framed the coast as significant because of its energy resources.

Restoration advocates and state officials also began partnering with industry to address land loss. Governor Mike Foster set up the America's Wetland Foundation (AWF) to be a non-governmental entity to fund restoration advocacy and projects. The Foundation became a major force in corporate greenwashing. Early in its history, Shell Oil donated 3 million dollars to the organization to sponsor a state-wide campaign designed to raise awareness about land loss. Partnerships between environmentalists and economic elites also emerged. A prominent landowner and former president of Whitney Bank, King Milling, became heavily involved in restoration advocacy and policy, becoming a member of advisory committees to the Governor's Office of Coastal Activities. Milling was a prep school classmate of Jim Tripp of the Environmental Defense Fund, who was also a founding member of CRCL (Houck 2015).

In 2003, Tripp, at a land loss summit sponsored by the America's Wetland Foundation, said:

> The environmental community and the energy industry must be partners as one part of creating the political will. This is not a normal union, but it must be achieved for an environmental problem of this magnitude.

At that same summit, the Governor's Chief of Staff remarked that Louisiana's wetlands were "working wetlands," and that the federal government needed to intervene to preserve Louisiana's nationally important resources. Additionally, the president of Shell Oil echoed that the company was now willing to be "part of the solution" since it was part of the problem in the past. The president explained that industry supported restoration because of the threats land loss posed to its infrastructure and argued that industry could bring the political muscle needed to implement a restoration program (AWF 2004). This sentiment touches on a key constraint to coastal restoration that rationalizes partnership with industry; that is, over 80% of the coastal zone is privately owned by energy companies and wealthy landowners (Lux 2017). Thus, restoration advocates claim that "engaging" industry—and foregoing what was formerly an antagonistic relationship—was the only realistic way to get restoration projects off the ground since industrial interests could otherwise use legal resources to obstruct restoration activities on their properties (Theriot 2014).

With the America's Wetland Foundation and its campaign, a new rhetoric emerged about the importance of restoring Louisiana's coastline because of its energy producing ability. At the same time, the rhetoric of coastal restoration and management plans emphasized the importance of Louisiana's wetlands as a unique ecological treasure, and plans stressed the need to focus on larger scale restoration projects (CFCL 2002). By this time, members of the Coastal Action Field did not discursively emphasize that coastal Louisiana could be "saved," or put back the same way it was. State officials were using rhetoric about Louisiana's coast as nationally significant to try to secure federal revenues for restoration projects, and politicians were eyeing royalties from

offshore leasing. The narrative construction of the land loss problem changed; the Mississippi River was now framed as a "root cause" (CFCL 2002) of land loss, and a key objective of the field was selling Louisiana's importance on a national stage to receive funding for large restoration projects. By the time CRCL issued its second report, "No Time to Lose" in 2000, firm calls to regulate industry were absent from its recommendations.

Unequal representation from frontline coastal communities

It is important to note that although the CRCL started as diverse group of stakeholders, the government administrative bodies being built were mainly comprised of white men. Coastal communities, particularly Black, Native American, Southeast Asian, and Hispanic people, for the most part, were not given representation or power within these structures. Tellingly, the authorship of the 2000 report was also less diverse; representatives of the United Houma Nation, the Sierra Club, and church organizations were not listed as contributing authors. There were other restoration programs designed to be more participatory and democratic. However, these programs were not well funded and were geographically isolated. For example, Louisiana environmental officials established a national estuary program through the EPA. Kerry St. Pé, one of the group's early leaders, was a protégé of earlier wildlife and fisheries officials who were outspoken about industry. St. Pé struggled as part of the state's Department of Environmental Quality to restrict industry from dumping treated wastewater into Lake Pontchartrain. Given its mandate from the EPA, the Barataria-Terrebonne National Estuary Program (BTNEP) was focused on maintaining environmental quality in coastal estuaries. Because of this focus, it was skeptical about river diversions because the Mississippi River is highly eutrophic and polluted.

As noted earlier, the BTNEP program also uses a multi-stakeholder consensus-driven approach to create a restoration plan for the Barataria-Terrebonne Estuary (located in

southeastern Louisiana) through "management councils," which are comprised of representatives from state and federal government agencies, industry, fisheries, citizen groups, and environmental organizations. Throughout the years, BTNEP plans de-emphasize restoration projects that might harm oyster beds and fisheries, and BTNEP's 2019 Coastal Management Plan is the only restoration plan in the state that acknowledges and defines "environmental justice," discussing the potential for large scale engineered projects to negatively affect historically marginalized communities such as Native American tribes in Grand Bayou, Vietnamese American fisherfolk, and low income estuary residents (BTNEP 2019, Chapter 5). Currently however, the program receives little funding from the state, its reach is limited geographically, and its more inclusive and participatory management principles have not been reproduced on a larger scale.

Creation of the Master Plan and "Working Coast" Discourse

The 2005 hurricane season

The devastating storms of 2005 (Hurricanes Katrina and Hurricane Rita) drew attention to the perils of losing the storm-buffering capacity of wetlands, and Louisiana government administrators convened expert bodies to expand upon the implications of such disastrous events. A working group of "independent and concerned scientists and engineers" gathered in Washington in December of 2005 to weigh in on the question of how coastal restoration and hurricane protection were intertwined. The group was supported by the ACOE and the National Research Council of the National Academies, a private nongovernmental organization that provides policy guidance. The group published its recommendations on how a more "sustainable" coastal landscape might be achieved through short-term restoration projects and

long-term planning. This period also marked the beginning of a discourse around Louisiana's coast as a "working coast." In the report issued by the working group, scientists and engineers argued that Louisiana must consider multiple objectives, biophysical constraints, and changing environmental conditions as part of its efforts to preserve the coastline:

> Hurricanes Katrina and Rita provide poignant evidence that no longer can coastal ecosystem management and restoration, flood protection, and navigation be planned, executed and maintained independently. We must integrate planning, investment and management decisions under a new framework in order to secure these multiple purposes, while recognizing: the forces of nature; the imperative to protect life, property and communities; the value of natural resources and ecosystem services; the environmental and economic sustainability of the solutions; and financial constraints. Furthermore, planning to support this integrated decision making must be an adaptive process that creates and uses new knowledge about this working coast (WG 2006, p.1).

Additionally, the National Research Council's Committee on the Restoration and Protection of Coastal Louisiana released a report in 2006 urging Louisiana state officials to re-evaluate a 2004 ACOE study to assess the storm protection potential of recommended projects in the plan. The report stated that approaches laid out by the ACOE were sound but argued that it was not clear whether the projects would fully address the severity coastal hazards given land loss and potential for catastrophic hurricanes. The committee recommended that plans for the Louisiana coastline should include suites of projects to maximize benefits, given resource constraints. The council also advised that planning efforts be guided by projections of future land loss that would occur without projects. Finally, they also recommended that Louisiana should communicate restoration plans with the public and should also convey the economic benefits of restoration, although after Hurricane Katrina—when over one thousand (mostly Black) people lost their lives— there was no mention of how restoration and protection might protect those most at risk. Additionally, there were no concrete recommendations on how to include resource-based coastal communities in a restoration and protection program. The report discussed canals

as a major contributor to land loss but did not give guidance on how the risk should be addressed within a restoration plan. The report also acknowledged sea-level rise from climate change as a concern, but also wagered that restoration projects could contend with the rising waters.

In addition to the urging of scientific bodies to merge flood protection with restoration, the federal government also preferred that the state of Louisiana have a single cost share partner. With these directives, the state's administrative structure for coastal restoration reorganized. In 2005, LA Act 8 established the Coastal Protection and Restoration Authority (CPRA), which initially existed as a Board of Directors made up of representatives from state agencies. Later, the Board created an agency to be its implementation arm. Employees from the Department of Natural Resources (DNR) merged with employees from the Department of Transportation (DOT) to staff the new state agency.

The CPRA Board consists of representatives from state agencies and is chaired by an Assistant to the Governor. The CPRA also receives oversight from a Governor's Commission. With these structures, the state's coastal authority has a mechanism for coordination among state agencies; however, because the head of the CPRA is part of the Governor's Office, the agency is vulnerable to turnover in different political administrations. The distinction between the Board and the Authority is intended to keep the Board as the political arm, while the Authority retains some autonomy to be a technocratic management organization. Throughout the history of the CPRA, as with all state agencies, leadership has been predominantly male and white.

The Comprehensive Coastal Master Plan

Act 8 directed the CRPA to organize its efforts around a Comprehensive Master Plan for the coast. The first Master Plan (MP), completed in 2007, argued that the CPRA represented a novel and innovative approach to combatting a problem that spanned jurisdictional boundaries:

> Act 8 created the Coastal Protection and Restoration Authority (CPRA) and charged it with coordinating the efforts of local, state, and federal agencies to achieve long-term, comprehensive coastal restoration and hurricane protection. One of the central tenets of this legislation is that state agencies must move beyond jurisdictional boundaries and ensure ongoing integration of hurricane protection and coastal wetland restoration activities. Act 8 seeks to integrate hurricane protection and coastal restoration activities to provide for a safe and sustainable Louisiana. Act 8 directs the CPRA to supply "aggressive state leadership and direction" as new policies, plans, and programs for the coast are developed. Emphasizing coordination in this way and giving the CPRA the power to enforce it are both groundbreaking aspects of Act 8. In addition, the act requires that the CPRA use its leverage to resolve conflicts in the fine print— those policy, institutional, and legislative constraints that, if not dealt with, could hamstring effective action (CPRA 2007).

This 2007 plan became the guiding document that identified how coastal activities were to be prioritized and was mandated to be re-evaluated every five years (later extended to 6). The first MP development team consisted of employees from the DNR and the DOT who worked with "stakeholders": non-profit groups, scientific advisors, additional state agencies, and a technical review panel to produce a "conceptual framework" for achieving the objectives of "reducing risk to economic assets, restoring sustainability to the coastal ecosystem, maintaining a diverse array of habitats for fish and wildlife, sustaining Louisiana's unique heritage and culture." This first version of the MP included a long list of known projects that agencies had wanted to fund and build since the 1970s.

With the MP, the CPRA became the center of an organizational field whose central project was managing the slow degradation of the coastline to limit impacts to urban centers and infrastructure while also recreating coastal habitats. As is the case with many government agencies, the CPRA's mission includes balancing conflicting and competing directives, although,

as I demonstrate in the next sections, the agency is empowered to prioritize some of those directives over others due to the limits of its legislative mandate and due the funding mechanisms that support it.

Revenue sharing deal gains momentum and environmentalist pushback

Hurricanes Katrina and Rita led to conflict between federal and state officials over offshore energy production and revenue sharing. In the wake of the storms, gas prices soared, and the federal government wanted to open additional offshore lands for leasing. Louisiana politicians, including the governor at the time, had been pushing the federal government to reach a deal that would direct portions of offshore royalties to the state for coastal restoration. State officials argued that it was only fair that the state be given funds to protect its coastline, since energy production is a nationally important form of economic activity. Anticipating a revenue sharing deal, the state passed a constitutional amendment to earmark any federal funds coming in to be spent on coastal restoration and protection. Advocacy groups formed coalitions to lobby Congress. An organization led by King Milling's wife, Anne Milling, called "Women of the Storm," lobbied Congress to divert oil and gas royalties to Louisiana. Sociologist Emmanuel David wrote an ethnography about the group and showed that its membership was somewhat diverse (the group pulled in Black and Vietnamese community leaders) despite the white, elite founders. The group visited congressional lawmaker offices, hand delivering copies of *America's Wetlands: Louisiana's Vanishing Coast*, a book produced by America's Wetland Foundation (David 2017).

In 2006, for the first time in Louisiana's history, the state filed an injunction to stop a lease sale on offshore land. Following this action and further political maneuvering by Louisiana Congressional representatives, the Gulf of Mexico Energy Security Act (GOMESA) was signed

into law. It would give Louisiana a cut of federal revenues from offshore drilling, providing the state with a steady source of funding for restoration and protection. The state had been working on a revenue deal but was previously unsuccessful; Hurricane Katrina provided the state with the necessary political opportunity to make the case that the state should be compensated for offshore development activity.

These activities also recharged tensions between industry and environmental advocates. Louisiana environmental groups such as Healthy Gulf (formerly the Gulf Restoration Network), a progressive environmental action group, opposed a revenue-sharing deal on the grounds that it encouraged activities that contribute to coastal degradation (Hallowell 2001; Stole 2018). However, because the loss of sediment supply from the leveeing of the Mississippi river is also a contributing factor to land loss, state officials could frame revenue sharing as common sense. If the federal government continues to push for offshore development, they argued, then revenues should go back to Louisiana to fund projects that restore and protection the coast and make up for the government's past levee building, the reasoning went. Environmental activists, however, were still rallying around the charge that oil and gas companies were at fault for the extensive damage that hurricanes caused and were engaging in their own campaigns to draw attention to oil and gas companies. In 2008, Healthy Gulf flew a banner over the New Orleans Jazz Fest saying "Shell— hear the music—fix the coast you broke." In a public relations move, America's Wetland Foundation had commissioned the creator of the Saturday Night Live character, Mr. Bill, to produce a promotional video series about restoring coastal wetlands. When the creator, Walter Williams, found out that AWF was sponsored by Shell Oil, he pulled the ads. Healthy Gulf used that publicity to set up a demonstration in which someone dressed as Mr. Bill drove to Shell Oil headquarters in a limo, "flanked by bodyguards and models," to hand over a bill for

362 million dollars for the destruction of coastal wetlands (Schleifstein 2008). Williams also put out a statement reading:

> America's Wetland is an insidious plot by the oil industry to commit Louisiana's future share of offshore oil revenues to funding the state's coastal restoration plan "Morganza To the Gulf," which basically only protects Port Fourchon and the oil infrastructure. They want the American taxpayer to pay for the mess they made that is now endangering their very facilities. They're trying to stick it, once again, to the "small people" (Johnson 2010).

The Morganza to the Gulf Hurricane Protection System is a project recommended in the MP. If built, it would feature 98 miles of levee-like structures around (mostly urban) communities in Southeastern Louisiana. Williams's statement highlights another key contradiction that was becoming baked into the state's coastal management plans: the state was willing to invest billions of dollars into levee projects which are in part responsible for land loss. Oliver Houck issued another incisive criticism of the state after Katrina, saying that everyone—state and federal officials, scientists, bureaucrats, engineers—was complicit in the destruction of the wetlands by continuing to allow development and pursuing "water pork projects," like the Morganza to the Gulf levee. Criticizing the rhetoric of a "working coast," Houck wrote:

> In practice, the working-coast principle means getting as much federal money as possible for new canals, highways, drainage pumps, and levees that destroy the coastal marshes, while at the same time getting as much federal money as possible to restore the very same marshes.

Contradictions of the Master Plan and limited representation from frontline communities

Contradictions inherent in Louisiana's approach to coastal land were beginning to be scrutinized. However, members of a burgeoning field of coastal actors easily rationalized the

approach (Theriot 2014); for example, one supporter of the AWF said in an interview that going against oil and gas only resulted in years of court battles that gets Louisiana nowhere. The time following the deadly and destructive 2005 hurricane season was a time of reorganization in the sense that the rules of the burgeoning field changed. The focus of coastal advocates and administrators before Katrina and Rita was on building restoration projects, but with the storms, the focus shifted to flood protection, as officials argued the state's storm protection systems needed attention and improvement. At the same time, there was consolidation of the political, scientific, and bureaucratic forces that resulted in the securing of federal funds for restoration and protection projects. Louisiana was on its way to funding a coastal program with large sums of money coming into its coffers through GOMESA. With the CPRA, the state has a centralizing agency to coordinate activities through GOMESA and the other smaller funding programs like CWPPRA.

Even though the consequences of land loss disproportionately effects people of color, such as Black, Native American, Southeast Asian, Hispanic, and working-class Cajuns who live in vulnerable areas, the field's top leadership consists largely of white male professionals living in Baton Rouge and other urban centers inside levee systems. While the initial restoration movement brought diverse community members together, as the CAF became a more formal body connected to state government, representation of frontline communities in restoration and protection planning diminished. The planning process became limited to highly structured mechanisms such as public meetings, which largely consist of agency officials giving the community presentations and then having individuals make comments on proposals.

Building Out Master Plan Through Organizational Support

The Deepwater Horizon British Petroleum Oil Spill Disaster and restoration funding

In April of 2010, the Deepwater Horizon oil rig, operated by Transocean and leased by British Petroleum, exploded. The disaster killed 11 people and released 3 million barrels of crude oil into the Gulf of Mexico. Ensuing legal settlements and penalties from the BP disaster created three pots of award money for Louisiana and other Gulf of Mexico states. The Clean Water Act criminal settlements with BP and Transocean produced 1.27 billion dollars for the state of Louisiana. A large 501c3 non-profit and conservative grant maker created by Congress, the National Fish and Wildlife Foundation (NFWF), manages the funds, which are tied specifically to diversions and barrier island restoration. Congress passed the RESTORE Act, which created a trust fund from Clean Water Act civil and administrative penalties. Money in the fund is separated into 5 "buckets" or sources of funds with different sets of formulae for allocation. For example, some buckets are equally distributed to gulf states while others are based on a competitive process. The buckets are also administered by different bodies, including the U.S. Treasury, the National Oceanic and Atmospheric Administration, and the Restore council, which was created to implement a nationwide restoration plan following the BP Oil Spill. The council is made up of governors of gulf states and representatives of federal agencies. Money from Restore Act sources are somewhat flexible. For example, Restore Act money can be awarded to states to support a Center of Excellence program that administers competitive research grants.

BP also agreed to pay 8.1 billion dollars in natural resource damages under the Oil Pollution Act. This mechanism, the National Resources Damage Assessment (NRDA), provides funds that are resource-specific; the settlement money which is used to "restore to baseline" natural resources that are damaged from oil spills is governed by a trustee council. Distribution of money to Louisiana is specifically governed by a group of state and federal agency

representatives known as the Louisiana Trustee Implementation Group (LA-TIG). The majority of Louisiana's NRDA money must be spent on projects that "restore and conserve" coastal and wetland habitats such as marsh creation, oyster hatchery, and island restoration projects. Altogether, Louisiana is set to receive over 8 billion dollars in periodic installments through the year 2031, when Louisiana hits its fiscal cliff. However, with money from these settlements slowly rolling in after the spill, the CPRA is able to design and build large-scale and expensive engineered projects. According to the chairperson of the CPRA Board, Chip Kline, these funds are allowing Louisiana for the first time in its history, to "match the scale of the problem itself" (CPRA 2020a).

Computer models and ever-larger engineered structures

In this stage of building a dominant coastal program, development interests collided with the scientific community to bolster applied research that is used to support the MP and the array of technologies that undergird it. In 2011, a Baton Rouge area foundation partnered with the state to create the Water Institute of the Gulf. According to its website, the impetus for the institute came after Louisiana leaders visited a world-renowned water management research institute in the Netherlands called Deltares, and "wanted to form something similar in Louisiana" (Water Institute 2020). The Institute, housed in a sleekly-designed building overlooking the Mississippi River, is part of developers' idea for having a "water campus" in Baton Rouge, or a hub of research and consulting activity around water management that "enriches the Baton Rouge cityscape while driving new economic growth" (Water Institute 2020). The Institute, as an "independent non-profit and applied research organization," serves crucial functions for the CPRA by advancing technology and modeling efforts connected with the MP. The Water Institute, for example, has received millions of dollars of award money from the Restore Act to

be a Center of Excellence and administer competitive grants for research awards that relate to the MP. The organization came under scrutiny after it accused two former scientists of stealing trade secrets when they made copies of a computer model that they developed before leaving the institute. The Institute was able to get federal prosecutors to charge the scientists, but then the feds dropped all charges, arguing that the Institute had falsely represented the case (Gill 2019; Houston 2019). The event underscored how lucrative the business of restoration has become, as budding scientists and research institutes are vying for millions of dollars of contracting bids and pursuing opportunities to bring in substantial monetary resources to their institutions through intellectual property.

In 2012 the state released a new edition of the MP. Unlike the 2007 plan, this iteration featured maps of predicted land loss that would happen "without action" (that is, with no MP projects being implemented) under different environmental scenarios (low, moderate, and high levels of sea-level rise, subsidence, and erosion). The plan also acknowledged that there are limitations to how many projects the state could implement given financial and bio-physical constraints. For example, there is a limited amount of sediment left in the Mississippi River to build land and the state capped the amount of money that it would spend on the MP. With these constraints, the MP became mainly a prioritization effort, or a way of choosing projects with the highest anticipated returns.

The MP uses predictive computer models to evaluate the land building (measured in land area built) and mitigation potential (measured in dollars saved from flood risk reduction) of projects, given changes to environmental conditions. The predictive computer models were developed by scientists at the Water Institute, other universities, and by CPRA staff. Once models are run, employees at the CPRA use a "planning tool" to interpret model output. Projects

are then prioritized under the plan constraints. The plan sets a budget of 50 billion dollars, half of which would go to "restoration" projects such as marsh creation and diversions, and the other half going to "protection" projects such as levees. The plan also recommends that the state develop a program for the identification and implementation of community and household-level projects like flood-proofing homes and voluntary acquisition of homes (buyouts). However, there is no dedicated funding source to accompany these projects, since most funds are dedicated to other types of projects.

The CPRA frames the 2012 MP as being novel in that it recognized the funding and sediment constraints that mean the coastline will not be completely restored in terms of looking the way it did in the 1900s. The 2012 plan reads:

> We developed the plan by taking a look 50 years into South Louisiana's future and building world class science and engineering expertise into understanding what we could achieve. The plan presents the best use of dollars based on what we know today—the first time the state has identified specific large-scale actions for our coast. Given the rapid pace of change that is part of our landscape, we can neither turn back the clock and return the coast to its historic condition nor keep the coast just as it is today.

After the 2012 MP was developed, the CPRA turned its efforts to designing and building river diversions that maximize the supply of sediment delivered to the wetlands (known as sediment diversions as opposed to freshwater diversions). The state would be able to fund these large projects using money from the BP settlements. These projects are regarded as highly significant because they have the potential to build land even as the rest of the coastline recedes. The 2012 MP did not mention the need to remediate oil and gas canals, nor did it discuss the culpability the industry had in terms of destroying marshes or contributing to anthropogenic climate change.

Although the state's MP overlooked oil and gas, the industry was not completely out of the limelight. In 2014, John Barry, historian and author of the book *Rising Tide*, initiated a legal suit against oil and gas companies to compel them to pay damages for destroying the wetlands (Elliot 2014). Barry was serving as the vice president of the Southeast Louisiana Flood Protection Authority-East. Local levee boards oversee the maintenance and operation of levees once they are built (funded through local taxes or millages). Louisiana politicians, namely the Republican governor at the time, Bobby Jindal, worked hard to quash the suit, warning that such a litigious environment would be detrimental to the state's economy (O'Donoghue 2014). The legislature responded by passing a bill that would kill the lawsuit. Surprisingly, the lawsuit turned out to be quite popular, and the bill to stop it barely passed the Louisiana legislature (Houck 2015). Barry's lawsuit was the first among many suits filed by parish governments to pressure oil and gas companies to pay damages for their past activities (Wendland 2019).

In 2017, the CPRA released its next iteration of the MP. This plan had new features. For instance, the plan featured several different predictive maps that picture what the coastline might look like in 50 years if there are no MP projects implemented vs. what the coastline would look like if all MP projects were implemented. The CPRA also expanded its outreach and engagement efforts. It worked with community-based organizations to convene focus groups of representatives from communities and industry that accompany the planning process. However, input from members of these coastal communities is still limited to making comments on drafts of the MP. The 2017 MP also elaborated on what a "nonstructural" risk reduction program should look like and recommended zones of land that should be considered for these types of projects (floodproofing, buyouts). Overall, the plan recommended 6.2 billion dollars be spent on these projects; however, the plan lists no dedicated funding source that approximates this value.

The plan does detail how available funding sources such as GOMESA, NRDA, NFWF, and Restore money could be directed toward the building of several large projects, including island restoration, marsh creation, sediment diversions, and salinity control measures.

The 2017 MP iteration considers sediments diversions to be "cornerstone" projects that have the most potential to build land into the future. The diversions are framed as "working with nature," meaning that they mimic the natural processes of rivers. They are also favored by the state because they are "passive" systems that do not require energy and machinery to actively pump sediment into wetlands like other types of restoration projects (Russell 2018). For these reasons, the project life span is much longer for diversions than other project types like marsh creation projects. Accordingly, the diversions are considered to be the state's "game changer" (Kistner 2020). A restoration non-profit wrote the following about land loss and the mid-Barataria sediment diversion, a 1.4 billion dollar project, on its online blog:

> Louisiana's Barataria Basin has experienced some of the highest rates of land loss in the country: Between 1932 to 2016, the region lost nearly 295,000 acres of land. This is due to a number of man-made and natural factors, such as the construction of Mississippi River levees and flood control systems, land subsidence and sea level rise.
>
> The Mid-Barataria Sediment Diversion is a cornerstone restoration project in the state's Coastal Master Plan. The diversion is being designed to strategically mimic the natural riverine processes that built the Mississippi River Delta and to help build and maintain land in the degraded Barataria Basin. Once constructed, the diversion will deposit enough sediment to build and maintain 30,000 acres of land over 50 years (MRD 2020a).

In sum, following the BP disaster, members of the field re-organized and found the resources to move forward with a management plan that stressed flood protection and restoration and utilized computer modeling to select what projects would be funded and built. There was solidification around diversions as "game changing" projects that should be designed and built to maximize the amount of land that could be built into the future. Still, the idea of backfilling oil and gas canals comes back up in the public discourse. In 2017, New Orleans public radio ran a

story asking: “if canals contributed to land loss, why not backfill them?” The story quoted top officials from the CRPA who said that projects to backfill canals “do not make the cut,” referring to their prioritization process determined by computer modeling. The CPRA’s executive director explained by saying, “we're really focused on large-scale, landscape-level, ecosystem restoration-type projects" (Lux 2017). He continued by stating that CPRA does encourage backfilling, but that it is not feasible for the agency to mandate landowners do so. Additionally, backfilling as a restoration technique is becoming less feasible to the state as time goes on because the amount of sediment that is available for the projects is becoming scarcer and more expensive to move (Randolf 2018).

Foundation involvement focuses on diversions and community outreach

The MP got a boost from the Walton Family Foundation, which was already funding Environmental Defense Fund (EDF) programs across the country (Mitchell 2012). The Walton group took a particular interest in coastal Louisiana, and in 2017 it poured 15 million dollars into non-profit organizations with restoration missions (Schleifstein 2017). Eventually, instead of funding single organizations, the Walton Foundation streamlined its efforts by funding a single campaign that multiple organizations would be a part of. The Foundation pulled together the EDF, the National Audubon Society, the National Wildlife Foundation, and two local organizations—CRCL and the Lake Pontchartrain Basin Foundation— to form the Restore the MS River Delta Coalition (MRD). Importantly, the Walton Foundation does not fund BTNEP, Healthy Gulf, or the Sierra Club, which take more cautious approaches to river diversions and place more emphasis on controlling and regulating polluters. This type of practice is not uncommon for elite foundations that “cherry pick” causes to support and engage in field-building activities to further their own interests (Bartley 2007).

The mission of the coalition is to advocate for large-scale restoration projects. The campaign is comprised of several committees that deal with restoration-related policy and science. For example, the campaign: keeps a list of the top priority projects in the MP and serves as a watchdog on those projects; provides policy recommendations to the state in terms of how it can operate river diversions (especially how it might work with fishing industries); engages in civic and political campaigns if any of the funding sources to the MP are threatened; and works with partners in other coastal states who are looking to implement similar types of coastal restoration programs. The MRD is also now working on alternative financing vehicles for coastal restoration, formulating market-based schemes using environmental impact bonds (EIBs). These bonds work by having investors provide capital to municipalities to construct projects that are then evaluated by third parties for how they performed according to environmental criteria (Cochran 2018). EIBs have already been used in select cases, one example being Washington D.C.'s water utility, which sold a 25 million dollar EIB to Goldman Sachs and the Calvert Foundation to finance green infrastructure projects that depollute storm water runoff (Davis et al. 2019).

Another goal of the campaign is to garner public support for restoration and diversion projects by engaging "grasstops," or local community members who have social and political capital, can show up to public meetings, write comment letters, write to their local officials, forge connections with other local organizations, and disseminate information about restoration projects throughout their social networks. The coalition engages faith leaders, recreational fishers, chefs, and conservationists, hosts seafood boils, and conducts flyout and boat trips through the marshes. The coalition has produced surveys conveying the popularity of the MP with the general public (Haughey 2018), has sponsored a documentary series on land loss

featuring “grasstops,” and has produced content urging individuals to “stand up” for the coast by providing comments in support of diversion projects for environmental impact statements (MRD 2021). These outreach events became particularly important as some commercial fishers and industry groups started mobilizing against river diversion projects, which will alter oyster and shrimp habitat by pushing freshwater and sediment into estuaries. Local leaders also joined in on this fight and initiated efforts to slow the progress of the projects by blocking the diversions’ environmental impact statement (Schleifstein 2018). Critically, one could view the MRD’s outreach and engagement as quieting opposition to the Master Plan by activity enlisting locals who will defend and champion projects, which are framed as using nature to restore wetlands and are supported by major environmental organizations.

Master Plan as Both Pragmatic and Aspirational

As the historical narrative describes, and as summarized in Table 1, the collective project of trying to address land loss shifted alongside Louisiana’s political-economic and bureaucratic terrain. The early history of response to land loss was characterized by the rise of coastal science and the identification and construction of land loss as an environmental and social problem and impending disaster. Environmentalists, scientists, community members, and state employees and officials concerned about land loss lobbied Louisiana politicians and the federal government for recognition and resources. Early management plans made by CRCL and then CWPPRA formed the backbone of interrelated research, planning, and implementation efforts that gave rise to a wider network of coastal actors. Additionally, elite interests aligned around the building of projects to safeguard investments, and oil and gas money funded media campaigns that shifted the blame for land loss from industry to the federal government.

Following hurricanes Katrina and Rita, and with the backing of the federal government and expert scientific bodies, flood protection and ecosystem restoration merged and the authority to coordinate coastal activities became concentrated in one state agency. The agency, however, has no enforcement or regulatory authority; its mandate is to plan and implement a Comprehensive Coastal Master Plan. Organizational coalitions developed to support and implement certain elements of the Master Plan. This organizational structure, along with key partners, now operate a fully-fledged "action" program today. The CAF frames the MP as pragmatic because it acknowledges that the coast can never be "put back" the way it was due to physical constraints and the worsening conditions. On the other hand, because conditions have grown so bad, and because there is funding available for projects, the CAF draws on a discourse of the MP as being "bold" and "action"-oriented. An excerpt from the CPRA's strategic plan exemplifies the mixture of alarmism and optimism inherent in the project:

> CPRA's analysis has confirmed that if we do nothing more than what has been done to date, Louisiana has the potential to lose up to an additional 2,250 square miles of land. This land loss will increase flooding risk to coastal communities with disastrous effects. Put simply: the status quo cannot be maintained, and we must take bold action now to save out coast. At the same time, our analysis has demonstrated that we still have an opportunity, if we continue to build upon current successes, to avert an otherwise bleak future (CPRA 2020c).

Given this history, the CAF has an incredible amount of momentum around developing science and engineering to build technological products (i.e. computer and physical models) and novel types of restoration projects. As more and more projects are built over time, and as restoration and protection efforts are viewed as successes, the CPRA is regarded as a highly competent agency capable of carrying out a massive coastal project, which then serves to bolster reinvestment in this action program. Indeed, the CRPA, with limited staff, manages billions of dollars of funding across the coastal zone. In total, since 2007, the agency has spent over 3

billion dollars and has managed the construction of over 100 projects. It claims these projects improved 375 miles of levees and barrier islands and benefitted over 46,000 acres of wetlands (CPRA 2020a). The agency's expected budget for the next three fiscal years is about 3 billion dollars, getting the agency closer to its goal of having 1 billion dollars a year to spend for the next 50 years—a target that may have been overly ambitious in prior decades.

Power Relations: Coercion and Consent

Levy and Egan (2003) explain that stability in organizational fields is related to strategic alignments of material and discursive forces, similar to Gramsci's notion of a historic bloc (Gramsci 1971). Power relations are not just based on coercion; rather, they are negotiated through cooptation, incorporation, and the giving of concessions, processes that garner the consent of those with less resources. This concept of power is strategic, recognizing the agency of actors who are enmeshed by constraints but who also push back on those constraints when given opportunities. Institutions like foundations, science, and academia (collectivities of "organic" intellectuals) are key to maintaining hegemony, as they provide moral and cultural leadership and neuter radical social movement activity (Bartley 2007; Faber 2005; Perkins 2011; Salamini 1981).

In the CAF, both coercive and consent-gaining practices were at play. Industry may be regarded as having coopted the interests of restoration advocates. While early efforts sought to regulate oil and gas and development activities, this emphasis diminished as the administrative bodies tasked with restoring the coast were de-linked from regulatory bodies and functions. Eventually the CPRA was incorporated into the state apparatus in a way that poses little challenge to continued industrial development, and even may benefit industrial interests by helping to protect their infrastructure. Similarly, the top-down Master Planning process

incorporates coastal communities, but only in superficial ways. This is significant because it is coastal communities, already marginalized within Louisiana's social order, who are the most negatively affected by land loss. More community-driven approaches like the one employed by the Barataria-Terrebonne National Estuary Program took a back seat to other planning efforts, but this and other community-based organizations are still enrolled in the Coastal Action Field. At the same time, the Walton-backed MRD campaign foments support for restoration projects and the state's Master Plan. This community engagement serves an important function in getting frontline coastal communities on board with a Master Plan that does not reverse land loss and does not provide resources for their adaptation needs. This support helps to build consent of frontline communities that will be the most negatively affected by land loss. This mechanism also reinforces racial inequality specifically, as "grasstops" are more likely to be wealthier white individuals (even if they identify as Cajun, or working class).

Finally, the oil and gas industry had resources available to them to shape narratives about land loss and about its role in restoration. Political-economic elites were able to frame industry itself as partner, and even as the reason for saving coast. Because there is funding and expertise available to implement projects that suits elite interests, and as ecological conditions on the coast worsen, the options for restoration are limited. These conditions now make the MP appealing as a commonsense solution. In this way, the MP is the hegemonic project of the CAF. In the next section I describe the contemporary Coastal Action Field in more detail.

Coastal Action Field Composition

The Coastal Action Field (Figure 7) is comprised of funders and gatekeepers, governing bodies (the CPRA Authority and Board), and supporting and constraining partners. The funders consist of federal and state administrative bodies and agencies that serve as gatekeepers to large

pots of money that are used to fund the MP. These bodies include (but are not limited to) the LA-TIG, RESTORE council, ACOE, NOAA, CWPPRA Task force, and the state legislature. The CPRA uses funds from these sources and coordinates all restoration and protection projects that happen in the coastal zone. The CPRA contracts out much of its work out to science, engineering, and construction firms. The CPRA Authority creates a Master Plan to prioritize projects, and the Board and Governor's Commission oversee those efforts, ensures that the state legislature passes the MP, and ensures that state funds for restoration and protection are safeguarded from being spent in other ways.

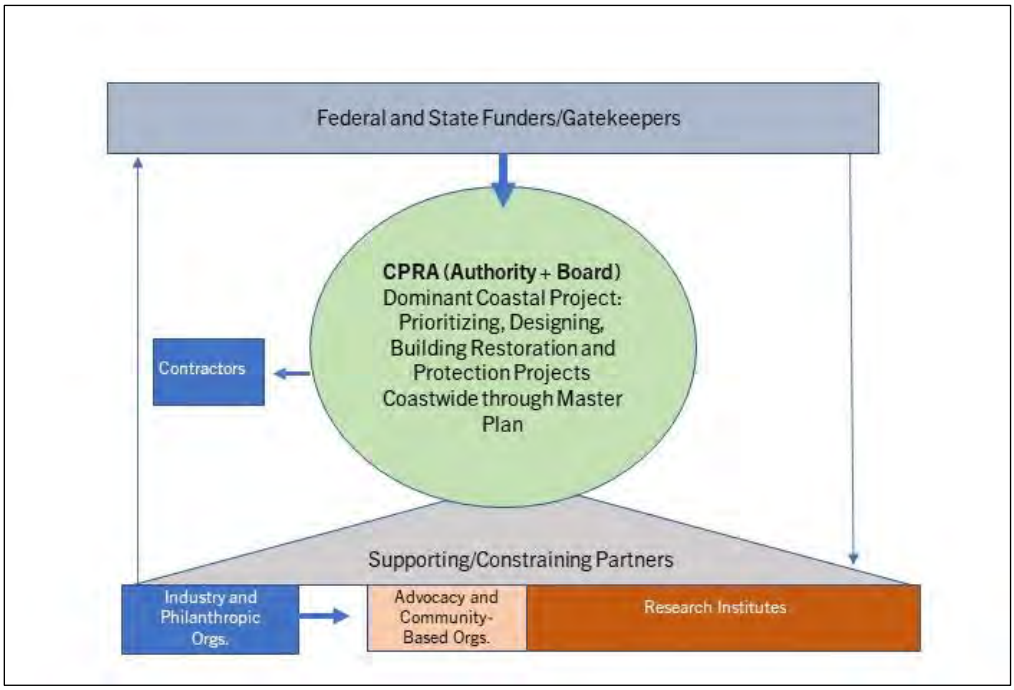

Figure 7.Schematic of Coastal Action Field. Blue arrows denote revenue and funding streams.

The supporting and constraining partners include the organizational network of non-profits that work with the CPRA to advocate for the MP and embed the project into civil society. They are also constraining, as will be shown in the next chapters, in that some of these organizations form coalitions to better advocate for the communities they represent and

challenge aspects of the MP. The research arm includes institutions like the Water Institute of the Gulf and university partners who are contracted by the CPRA, and also receive funds from public and private sectors, to do applied research that supports the MP directly and supports coastal science more broadly. For instance, the state government leans on institutions like Louisiana State University Sea Grant to help craft outreach messaging to fishers and also provides organizations like BTNEP with funding to supply the CPRA with trees for marsh-creation projects. The advocacy and research arms also receive funding from the private sector and from philanthropic institutions, some of which is used to do small scale restoration projects that otherwise would not be funded through the MP but are consistent with what the plan recommends. For example, the global mining company, RES, contributed to America's Wetland Foundation to fund a wetland creation project that also serves as a study site for scientists at Nichols State University. Oil and gas companies are also key players because they represent the largest landowner across the coast, and CRPA needs their land rights to build projects. Actors from all these sectors also influence the MP as members of advisory committees and framework development teams that give the CPRA input on the development of subsequent iterations of the MP.

Conclusion

In this chapter I show how efforts to address land loss were channeled into a hegemonic project that is supported by different stakeholders in a Coastal Action Field. This chapter establishes the contours of the CAF, including the material resources, laws, technologies, political-economic interests, and organizational structures that characterize it. In addition to laying out this context, this chapter demonstrates how the power relations of the field operate. In this chapter I argued that changes in the field worked in favor of vested powers because

developments assuage the contradictions of the MP and help elite frame it as a scientifically legitimate and socially supported solution to land loss.

Other scholars have criticized the MP because of its ties with the oil and gas industry. For example, Randolf (2018) calls the Master Plan a "machine" undergirded by an extractive logic, simply producing a justification for continuing with harm. These are important critiques, but they do not focus sufficient analytical or theoretical attention to how the "extraction machine" came into existence and evolved. My analysis draws attention to how concerns about industrial regulation and responsibility fell out as powerful players entered the field, and as material conditions changed. These changes channeled action to the building of engineering projects that could happen in the context of continual development. My analysis brings into focus a wider set of actors influential in this channeling, including organizations like the National Academies, and this analysis shows how the creation of the CAF was shaped by historical contingencies such as disasters. For example, it was disasters like Hurricane Katrina that spurred the convening of groups of scientists to produce reports that have the backing of a number of elite institutions. For these reasons, it is important to view the MP not just as emulating a rhetoric of science, but also as the product of scientific institutions that are well respected. Furthermore, the addition of Walton Foundation funding and the backing of local and regional non-profits and environmental organizations also contribute to this legitimacy. Finally, disasters like the BP Oil Spill led to more funding resources and enabled proponents of the MP to make a simple argument: there is funding for action, so the MP should go forward.

So far, the analysis has focused on the historical backdrop and the material resources and organizational structure of the CAF. This historical and political-economic context sets the stage for understanding how people in field continue to naturalize this context and construct solutions

to land loss. In the next chapters, I elaborate on the ideological dimensions of discourses used by individuals in the Coastal Action Field. I argue that there are important consequences of these discourses; they construct action as a binary (either move forward on MP or give up) and secondly, frontline coastal communities are assessed within this binary.

CHAPTER 5

"THERE IS NO OTHER SOLUTION": SUPPORT FOR THE MASTER PLAN IN A PETRO-DOMINATED STATE

> Fred is an older white man in a wheelchair. He is giving his acceptance speech for his lifetime achievement in coastal stewardship. He speaks with a deep voice and melodic rhythm. He is emotional as he says that he wants his grandchildren to be able to live and play in the wetlands the way he did as a kid. Just a minute ago he was introduced as a champion of restoration, as a "faithful" and "steadfast" advocate who had the "tenacity," the "balls" even, to say sediment diversions needed to be built.
>
> Fred talks about "honor" and the "courage" needed to "stand up" for coastal restoration. He adds, however, that this work is tiring. I see a deep nod from the man sitting on my right as he places his hand over his mouth and leans up against our table which is littered with glasses, beer bottles, and coffee cups. At the end of the speech, Fred slowly pushes himself up from a seated position as two younger white men walk up to grab him underneath his arms. Slowly Fred stands and declares, "the fight is hard, but nothing is impossible." The crowd bursts into applause. (Except from fieldnotes.)

In this chapter I answer the following question: How do state agency employees, non-profit employees, and engineers support Master Plan (MP) projects when they may harm the very people they are ostensibly intended to help? Drawing from in-depth interviews and fieldwork in Louisiana, I describe the discourses that dominate the Coastal Action Field (CAF). First, I highlight how individuals in the field discursively rationalize Louisiana's political-economic context while also building support for the Master Plan as the best approach for addressing land loss. I explain how these narratives erase racial inequalities. I then discuss discourses of leadership, science, innovation, pragmatism, and optimism that people use to support the Master Plan. I contend that these discourses do ideological work by positioning MP projects as *the* commonsense option for addressing land loss, given the historical and political-economic context in which the CAF is embedded (as described in the previous chapter).

Ideology is a key component in a neo-Gramscian formulation of an organizational field. Gramsci argued that a ruling ideology is one that can garner consent by framing particular interests as general interests. These ideas become embedded in popular imagination in such a way that they represent a commonsense reality. In this case, an important consequence of ideological discourses is that they produce a binary framing—i.e., move forward with Master Plan, or give up. Secondly, I show how frontline communities are evaluated within this binary, and their needs are framed as in opposition to moving forward with the Master Plan. I argue that the binary framing of action that dominates discourse in the CAF advances an assumption that frontline communities are not part of a "bigger picture" of what is best for the coast.

Negotiating Louisiana's Extractive Economy

Individuals working in government and in restoration organizations must negotiate the past—in particular, the relationship that Louisiana has had to the oil and gas industry—to make sense of the current environmental crisis and ways to address it. When conducting fieldwork, I was often surprised by how actors went out of their way to express consternation with industry without my probing. However, I also found that most people admitted that this was just reality, that industry is part of the "environment" in which they operate. People that I spoke to working on restoration and protection projects made reference to the "goodness" of people in industry, the idea of Louisiana as a "working coast" and sacrifice zone, the ubiquity of industry in the environment, and Louisiana's unique brand of environmentalism to minimize their criticisms. Narratives also resonated with cultural ideals that dismiss racial inequality. In the following sections I describe these themes in more depth.

"Good" people, "good" industry

When the topic of the oil and gas industry's harms to the coast came up, individuals were quick to acknowledge how people who work in this industry are "good" people trying to make a living. Noah, who works at a restoration non-profit, told me that industry was full of people trying to help, and that after all, "we are all just people" trying to make a living by doing "the best we can." At times like this in an interview, I often admitted that my own family made its living in oil and gas, which would evoke reactions such as: "oh of course, mine too!" Some interviewees made comments about how people from outside of Louisiana just could not understand how ubiquitous employment in industry is in Louisiana; they would say, "well you know since you are from here." The point is not trivial. The offshore drilling industry was virtually invented in Louisiana, and much of Louisiana's economy developed as part of secondary services around drilling and extraction. Environmental sociologists Bill Freudenburg and Robert Gramling argued that by the 1970s and 1980s, it was virtually impossible to find anyone in southern Louisiana who was not connected to the oil and gas industry in one way or another (Freudenburg and Gramling 1993). Even today, although many oil and gas companies have left Louisiana, employment in oil and gas is still relatively high compared to other states (Rickman and Wang 2020).

On an outing, Chuck (a key informant) said to me that perhaps the oil and gas industry has not been all that bad for Louisiana, since at least it provided people with work and produced an important product in the form of cheap energy. Chuck went on to explain that it could be worse, saying "at least we didn't prostitute ourselves like other places and choose tourism over the energy industry." This statement was referring to other coastal states that have robust tourism industries, like Florida or California, and uses the gendered language of prostitution to elevate an

extractive economy as superior to a tourism-based economy. I also know from my own experiences growing up in Louisiana that many people express a great deal of pride in the idea that industry supported people without a formal education, helped them earn a ticket to the middle class, and contributed to national prosperity through producing cheap energy. In fact, this narrative is what I grew up hearing about in my own family.

Krista, a woman from out of state and former state government employee, noted that she came to learn this about Louisiana, saying:

> The oil and gas industry was one of the only industries…you don't need a lot of education and you could make a good salary. Where can people find that? Yes, raise your family!

Krista's statement encapsulates the idea that industry provided meaningful employment and social mobility, things that are hard to come by. She also noted, after discussing how oil and gas companies contributed to ecological degradation, that she was not in the position to be able to criticize industry, saying: "I guess I feel like, I have a car, I drive, I have lights. I am so personally—I am so enmeshed in the oil and gas and fossil fuel culture that we have." Stating how fossil fuels are vital to everyday life and livelihoods allowed individuals to ease tension between development and the environment. Rita, an older woman and long-time conservationist and resident of coastal Louisiana, discussed with me how she fielded this tension. She said:

> My children are all in either oil and gas, or they are in some sort of development. And that is the way my dad made his living in oil and gas, and my husband did. And I look at it and say, no one comes to the coast in a horse and buggy. We all depend on the industry that is out there, that has provided all of us with a living, and everybody has to make a living.

Some individuals did have more critical things to say when discussing the oil and gas industry, but also found ways to walk their comments back. In an interview with Rachel, an employee working with a wetland restoration program, she expressed

frustration that there was not more oversight and enforcement of existing environmental regulations and policies. Stopping in the middle of her sentence, she exclaimed: "no no no, let me show you this!" She pulled out her smart phone where she had an image stored on it of a map containing all the abandoned oil and gas wells across the coast that companies were supposed to remediate, which she was incredulous about. She went on by saying:

> So many people here lived really good lives because of the oil and gas industry and there is a lot of people here who also don't live very good lives because of the oil and gas industry. And there is a lot of overlap in that people from both those sides do not know how to do anything else.

Rachel's statement echoes the ambivalent sentiments people expressed toward industry. Interviewees like Rachel were also quick to indict themselves for their role in the environmental crisis. For example, later in the interview Rachel said to me that every individual should take responsibility for addressing climate change by changing their behaviors, such as not drinking out of disposable plastic straws. These narratives about individual responsibility were used by interviewees to ease their criticism of the oil and gas industry's role in climate change and coastal land loss. Environmental sociologists have criticized the narrative that individuals need to change their consumption patterns and adopt more pro-environmental behaviors to address ecological crises such as climate change (Downey 2015; Gould et al. 2004). This is because these narratives belie the main drivers of climate change; for example, in terms of climate-related emissions, there are only 100 companies responsible for releasing over 70% of the world's greenhouse gases, many of which are energy companies (Griffin 2017).

A "working coast" and sacrifice zone

Political leaders and state agencies use the discourse of a "working coast" to underscore the importance of restoring and protecting Louisiana. For example, in this press release commemorating the 10th anniversary of the BP Oil Spill, Louisiana's Coastal Protection and Restoration Authority said the following:

> Without action, Louisiana's disappearing coast will have devastating impacts on the state and nation's economic and energy security. For this reason, CPRA is developing projects using the most cutting-edge science and research available as part of our mission to restore and preserve Louisiana's coastal habitats, natural resources, cultural heritage, and working coast and improve flood protection for its communities (CPRA 2020d).

The statement evokes sentiments about the value of the coast as it supplies energy to the nation and bolsters the "energy security" narrative. The oil and gas industry is framed as not only bringing prosperity to people in Louisiana, but also providing all of America with the petroleum products necessary for maintaining a high standard of living, without dependence on foreign oil.

Critical scholars consider Louisiana to be a state that de-prioritized the environment and health of local communities by allowing extractive industries to dominate its economy (Colten 2012; Davis 2017; Houck 2015). Additionally, Louisiana, by virtue of its geography and resource base, is a significant node in a globalized industrial chain that is in the business of extracting and refining fossil fuels and using them to manufacture and produce products such as gasoline, natural gas, and plastics. For these reasons, it has been referred to as a "sacrifice zone," because it represents the concentration of environmental harms in a broader capitalist system of production (Colten 2012; Holifield and Day 2017). Arlie Hochschild evoked this sacrifice zone narrative when she said in her ethnography, that "Louisianans are sacrificial lambs to the entire American industrial system. Right or left, we all happily use combs, toothbrushes, cell phones, and cars, but we don't all pay for it with high pollution" (p.232).

The idea that Louisiana sacrificed for the rest of the nation allows negative externalities to be framed as a necessary evil and Louisiana's ecological crisis as an inevitable consequence of society's need for petrochemical products. I heard narratives in the field that expressed people's resignation to being a "sacrifice zone," meaning that ecological destruction and deteriorated health are the prices people in Louisiana pay for having an industry that provides for them. One young man I met at a marsh creation volunteer event described it to me in this way:

> It's like a catch 22 you know, industry has done a lot, but caused a lot of problems [the canals and land loss]. And then there are the [chemical] plants. I mean, it's like, do you want a job, or do you not want to have cancer? You know? Well, I'd rather have a job and no cancer, but…you know.

There are reasons to be wary of the assumptions in these types of narratives, which frame the negative consequences of industrial activity as inevitable and stymies critiques of polluting and destructive industries. For instance, toxic hazards are not proportional to the amount "economic activity" they create (Freudenburg 2005), and research has shown that there is wide variation in emissions from industrial plants (Grant et al. 2010). Additionally, when it comes to the industrial practices that scarred the Louisiana coastline and contributed to land loss, those practices were not the only option. Companies could have accessed pipelines and wells without digging canals, or could have backfilled canals after they were dug, but refused to so because those measures cost more (Houck 2015).

I also found the idea of Louisiana as sacrifice zone was most often *not* wielded as a pejorative towards industry or capitalism. Instead, some used the narrative to frame Louisiana as deserving of aid and to smooth the contradictions of Louisiana's funding mechanisms for restoration and protection (i.e. the GOMESA deal which directs offshore drilling royalties to Louisiana). Brenda, a boisterous Louisiana native who worked both in energy and coastal restoration, asked me rhetorically, "who would not be for that?" referring to GOMESA, which

she said guaranteed that oil and gas companies "wrote a check" straight to Louisiana for compensation for offshore drilling. A similar logic was used by politicians and lobbyist to secure funding. They said that if offshore royalties were not given to Louisiana, they would just go back to the federal government, signaling how the nation is willing to leave Louisiana in environmental crisis while gladly using it for energy production. Former chairperson of the CPRA board and now U.S. senator, Garret Graves, put it like this when praising the GOMESA revenue deal and continuing to push for more reinvestment:

> Energy producing states along the Gulf Coast have waited a long time to start seeing these GOMESA offshore energy revenues, especially in Louisiana – where the Gulf has eroded over 2,000 square miles of our coast. These reinvestments are critical…Every single penny of this funding will be invested in urgent coastal restoration and hurricane protection efforts to protect Louisiana lives, communities, culture and a nationally-important economic engine responsible for 80 to 90 percent of all offshore energy production in federal waters in the United States (DOI 2020).

"It is part of our environment now": working with industry as reality

While individuals found ways of downplaying harms caused by industry, they also expressed a frustrated resignation that they had to work with industry to simply get restoration and protection work done. In a joint interview with different state employees working in restoration, I witnessed exchanges about this, like the one between Trevor and Alyce:

> Trevor: Yeah, Trevor the private citizen thinks oil and gas canals are terrible ideas. Obviously! Digging east and west channels through marsh, that is healthy. It is a *terrible idea*! Trevor the CPRA employee understands that a lot of our taxpayers work for those oil companies, and that is how they make their living, and that we have to balance…

Alyce: And a lot of our revenue comes from mineral funds, [revenue for] our projects.

Additionally, some state actors were dubious about corporations' motivations in the past but expressed the idea that industry had internalized environmental values and was now wanting to help. Behind these assertions is the sentiment that what happened in the past (before federal

environmental regulations) cannot be undone, and while it is unfortunate that oil and gas companies were allowed to carve up marshes, companies today operate in an environmentally friendly manner. Oil and gas companies also have access to machinery and sediment that are used in restoration projects and for that reasons are regarded as important resources. In a meeting with two government employees working on Master Plan projects, Sarah and Rebecca had this exchange:

> Sarah: They are helping. I went to a stakeholder meeting, and a guy from Shell Oil was there, and they are like, all hands in, so…
>
> Rebecca: Yeah, and we can't do a project without working with them and pipelines. We have to. And usually they are really good about working with us, whenever it comes time. Yeah, it is like a double-edged sword, I guess. And for many many years, I guess they just did whatever they wanted.
>
> Sarah: The quickest way.
>
> Rebecca: The quickest, cheapest way, and they did a lot of damage, and now we are all kind of starting to wake up and tighten down on that. The way they used to just dredge up the marshes, that doesn't happen anymore. They can't do that anymore.
>
> Sarah: And I think some of them, in the future may be backed filled. So…
>
> Rebecca: And so now the situation that we have is just a *massive* amount of infrastructure, just bird's nests of pipelines all throughout the wetlands, and so that is just a challenge that we have doing these projects, that is part of our environment now.

The statement that industry is more tightly regulated now is something I heard from industry representatives. Brenda said to me in our interview that:

> I wish I had a flux capacitor to go back in time to fix the canals, but that doesn't mean we can't do better. But our industry creates the value proposition for doing work on the coast. Louisiana is valuable because there is a trillion-dollar industry. We are not Florida. We don't get funding like the Everglades. Industry makes us worth saving. It is a double-edged sword.

This statement underscores that it is not productive to harp on the past, and Brenda's comments exemplify that without industry there would be nothing to justify spending federal money on coastal Louisiana. Bryce, an official working in Port Fourchon, made a similar comment when

discussing how it can be difficult for rural areas to get federal funding for flood protection and mitigation money, saying that is "an uphill political battle" and that they had to find ways to "prove themselves" worthy of funding.

Some people like Krista expressed more cynicism about oil and gas companies' commitments to the coast, even noting that they "creeped" her out with their platitudes about wanting to help. However, she again fell back to the position that they must accept working with industry:

> And so I was in this meeting between us and this Shell executive, and the Shell executives were like "yeah we really care, we want to do good," and I was like so creeped out, and they gave off this creepy weird vibe, of like, yeah you care, when you are in control, and you are going to give pennies on the dollar to what you owe. And so I think there is, sometimes I think this contradiction is embedded in the fact of life. That is, all the money to do state work, industry is where it comes from. A lot of landowners, in terms of where these restoration projects take place, many landowners are oil and gas companies. And a lot of local people, in local government, are like "do not bite the hand that feeds you." And, as a matter of logistics, yeah in some sense, you have to – adversaries have to work together. You have to work together.

And then she turned her attention to how oil and gas canals are part of the land loss problem and said:

> As an agency we all know that. We all agree, and it is just the matter to which… I think people at the agency just want to build projects. And I don't know when there were all those lawsuits where our agency was, but I think they think that you just have to work inside the system.

Her statements show that she believes agency personnel want to work inside the system, or with adversaries, in order to get projects off the ground.

When I asked about challenges to doing restoration work, Trevor and Alyce had an exchange about the limitations of the state when it came to addressing industry and its impacts.

Trevor: We can't do anything about the damages unfortunately.

> Alyce: I think everyone here…we do acknowledge the role that oil and gas and industrial activity has had on the coast, and getting us to this point. To address all that there needs to be a whole massive scale cultural shift, and that is one of those stay in your lane type things. We are here to counteract what damage has been done, but if other agencies that actually permit or enforce want to address that, that is on them.

These types of exchanges highlighted for me how agency employees regard their role in restoration as being about building of projects because they don't have the authority to regulate. They are also acknowledging just how deeply embedded the oil and gas industry is in Louisiana's culture. As with these employees, many individuals invested in the MP expressed a prominent desire to build projects, an activity which is "staying in their lane" and doing something good with their time and energy. For instance, Miles, a state employee working on MP models, expressed relief that he did not have to work on policy after mentioning that it was really "interesting" that Louisiana funded its restoration and protection work from GOMESA. I asked if he thought this was a contradiction. He had to reflect on this question and then said, well, "it is one of things, you know, you can't let perfection be the enemy of the good." In this statement he is acknowledging that funding restoration through oil and gas revenues was not a perfect situation but implies that building the actual projects is what is most important.

Carol, who also worked on MP projects, said she looked forward to getting funding to do projects, even if it meant that there was another environmental disaster, saying:

> There is plenty to do…I am thinking about what we do next, how will we spend the next billion? You know, after the next oil spill. I don't think that anything has really changed on that front. I think that it is just a matter of time until something else horrible happens. I don't want it, but I do think it is inevitable.

In this way, Carol is describing how environmental disasters actually have a silver lining, providing agencies with major sources of funding for large-scale projects. She also is noting that after BP, it appears that regulations have not tightened at all, meaning that it is just a matter of time before the next oil spill.

For others, the resources that oil and gas companies pump into restoration could be viewed as greenwashing, but they also accepted that this was still a way for them to get funding to do the projects they wanted to do. When on an outing at a restoration site with Chuck, he explained that the site was actually being funded through America's Wetland Foundation and a global mining company named RES, the "bad guys" as he put it. He reflected on the situation as we rode together in his truck and said in a matter-of-fact way, "well, it might as well be us getting the money." Similarly, at volunteer marsh planting events, I heard a coordinator having conversations with volunteers who asked if it was odd having their events sponsored by oil and gas companies. She replied that it was odd, but that in the end, "a sponsor is a sponsor," and that their support helps get restoration work done.

The Louisiana paradox

Members of the CAF that I spoke to described Louisiana as a "paradox" of sorts when it comes to the environment; they say that the people here do not consider themselves "environmentalists" (or wouldn't want to be associated with the term because it has a liberal connotation, or is "loaded") and are pro-fossil fuel, but they also still have a close tie to the land, doing things like fishing, crabbing, boating, and enjoying fresh seafood. "That is just what we do," I heard said multiple times, and that "people love environment and love industry." Descriptors of people in Louisiana often evoked imagery of "blue-collar" workers, not corporate executives, but people who work all day and then go home to enjoy the environment. One employee of a non-profit, Mary, explained to me that it is a misconception to see blue-collar workers as anti-environment, noting how she came to learn this:

> The people that do the manual hard labor in oil and gas absolutely understand the environmental issues. They are people that fish on the weekends, and they see what is happening around them, and they really tend to support coastal restoration and care about

> the environment. It is the people who make a whole lot of money in oil and gas, that are not getting their hands dirty that are opposed to seeing restoration happen. I think I had some preconceived notions about that, that I was quickly disabused of when I first started here.

The seemingly contradictory pro-environmentalist and pro-industry sentiment was described by Freudenberg and Gramling (1994) when they argued that people in Louisiana saw themselves as unique, even "strange," for their close relationship with industry, but that they still expressed concern about the environment. This idea is exemplified in quote from Anne, a longstanding nonprofit director, who said:

> So you have people who are tied to the estuary because of their job. Then it is because of their culture. You can't go anyplace else where people… say it is a Friday night in Lent, because you know this is Louisiana, we are tied to our religion too. What are we going to have [to eat]? And it is not a question of, are we going to have a cheese sandwich or tomato soup? It is what part of fisheries are we going to? Are we going to have crawfish? Are we going to have crabs? Are we going to have shrimp? The people here are so, part of the ecosystem, and they know that.

Her descriptions convey how people respect and understand environmental resources because of their use value, including cultural and religious value by describing how important fisheries are for Catholics, who abstain from eating meat (beef, poultry, pork) on Fridays during Lent.

Erasing racial inequality

In the previous sections, I highlighted narratives rationalizing or minimizing the destruction oil and gas companies have caused on the coast. Given the rhetoric of ubiquitous pollution and ecological degradation, it is important to note that the benefits and harms of industry are unevenly distributed within and across communities, as suggested by the fact that the most toxic zip codes and neighborhoods are occupied by Black, Latinx, Native American, Southeast Asian, and other people who were not privy to its wealth-generating capacity (Colten 2012; Kang 2020; Lerner 2005; Reyna 2020; Terrell and James 2020). The unequal racial impacts of industrial development were often not recognized by the white bureaucrats, planners,

scientists, and engineers that dominate the Coastal Action Field. Although many members of the CAF recognized harm of industrial practices and pollution, there were few times when individuals tied these descriptions to racial inequality. Instead, I found colorblind narratives about people's ubiquitous ties to the land that frame the environment as a social equalizer and as a universal resource. But the environment is imperative for the survival of subsistence communities, many of which are racially and ethnically diverse, and this was not often explicitly mentioned. For instance, in this statement Brenda uses a framing of equality to characterize people's relationship with the environment:

> One of the unique things about growing up in South Louisiana is you are one of the most connected people to the resources, to the environment, in the nation. No other place in the nation does the landscape and the environment so determine what you eat, what you wear, what type of house you live in, what your idea of a good time is. That is true across all economic backgrounds, like it doesn't matter whether you are rich preppy white kids who go to Teurlings Catholic—it is frogging and drinking beer, or going to Holly Beach. It is being with people and the environment. Same as it is with some kid who just barely made it out of Northside High, someone who comes from a completely different social background. It is [having a good time] the same, being together, being outside, that is universal.

Northside High School is a majority Black public high school, and Brenda describes students here as "barely making it out of high school" and contrasts this image to "rich white preppy" teens. This kind of rhetoric both represents racist stereotyping and underscores how pervasive racial inequalities are; they are completely taken for granted when discussing the environment as a shared value.

In her ethnography, Arlie Hochschild argues that racial resentment among white Louisianians contributes to ongoing stereotyping and increased racial tensions (Hochschild 2016). In my own work, I did not find overtly racist statements made by white individuals. I did find colorblind statements, and even heard colorblind statements from people of color. For instance, Rhonda, a Black woman living in a coastal community heavily employed in oil and gas,

went out of her way to say that "we are all one color" and that there "is no color line" when I asked about the racial makeup of her community. Rhonda's points were aimed to highlight how racially diverse her community is but also cohesive. She followed these points with comments about her frustration toward the state for the way the state left her community out of decision making processes. In the next section, I explain how the interests of racially diverse frontline communities can be framed as working against a greater shared interest, an assumption which I interrogate.

Supporting the Master Plan and Constructing Action

In the last section I highlighted discourses that naturalize Louisiana's political-economic context and its racial inequalities. In the next sections, I describe discourses about the MP and the state's broader coastal program that frame it as the best way to deal with land loss given material constraints. I highlight discourses about leadership, innovation, science, and pragmatism that support the MP, and I show how individuals construct "action" to address land loss in binary terms that resonate with cultural values. Additionally, I show how frontline community concerns are evaluated within this binary framing, meaning that individuals weigh meeting community needs against what they frame as a greater shared interest. In my analysis, I recognize the real material constraints and structures that inform these discourses, but overall, I argue that ideologically, discourses about a "bigger picture" can frame frontline communities as disposable.

"We are ground zero": leading with innovation and science

The most ubiquitous narrative I heard from actors in CAF, from staunch critics of the Master Plan, to its biggest supporters, to oil and gas representatives, is that Louisiana is "the" climate bellwether that signals what the rest of the nation (and globe) will face due to climate change. This idea was used as a way for highlighting the significance of their work, conveying

Louisiana's importance on a larger stage, and as a motivating factor in the face of doubts. The idea that the state is a climate bellwether presents a challenge that could also be framed as an opportunity, a point of potential pride, and even a responsibility. Individuals in the CAF reasoned that if they, as representatives and residents of Louisiana, could figure out their environmental problems, then other places and locations could follow suit and "learn" from their "mistakes." This also signifies how people in the field saw themselves as intersecting with other organizational fields, such as the larger professional field of "ecosystem restoration" and other networks of scientists and professionals working on water issues, such as those in the Netherlands and along the East Coast of the United States.

Participants across organizations and positions in the CAF found pride in doing "the messy and hard work" of conceptualizing how a complex "working coast" could be properly managed in the face of a disaster, including climate change. With excitement, people framed Louisiana as a leader in tackling the thorny issue of climate change simply because Louisiana, as an energy producing state, was acknowledging the need for emissions reductions. This positive outlook was reinforced when people in the field called Louisiana an innovator, noting with pride that they were doing groundbreaking things "here first," despite the fact the state has been known for reactionary (and even corrupt) politics. For example, Damon, an engineer who designs elements of the diversion projects, put it so:

> I think, some people say Louisiana is backwards in many ways. But I think in coastal restoration and protection, I think we can, we are carving the path for others, because our situation and our threats are really, really ahead of anyone else. Our, subsidence is so high, that, the sea-level rise, or the relative sea-level rise impact is higher for Louisiana, compared to the other states. So what we need to think about today, other states might have to think after 20-25 years, so that is why I think that we are setting examples. No other state has a sediment diversion, so this is one of kind project that we need to design, and that is what we need to explore, a lot of new things, that have not been done in the past, not anywhere in the world.

Similarly, Leigh, who works in outreach in an environmental non-profit said:

> The world will look at Louisiana and how we dealt with this [climate change], because we will be the first ones who really have to deal with it. But as these things really start to take hold in other places, like we, we have an opportunity to be leaders and innovators and that is exciting, just, for… it is sad that we have to be, but it's cool to think that if we pull this off, and we do it right, that we will have set an example on how to work with nature, and how to make tough choices, and start thinking ahead for some of this stuff.

The phrase "working with nature" was used by members of the CAF to convey the notion that the diversion projects were coming from a more enlightened position, in contrast with the "control over nature" paradigm that influenced the channelization of rivers in the first place. Talking about the diversion projects in this manner represented a vital way in which the field was doing restoration "right." People acknowledged that they wanted to do things right because they may be a model to others, as according to Leigh, the world is looking at Louisiana to see what it is doing. Governor John Bell Edwards used this same rhetoric in a press conference when he said that the "whole world is watching" Louisiana and the projects the state is implementing. This rhetoric was repeated by people in the field as they stressed how seriously they took their role as a leader in the restoration and climate adaptation space.

Tonya, a retired bureaucrat who worked in environmental quality and on restoration projects spoke passionately about the idea that Louisiana was "ground zero" for environmental issues, and explained that figuring environmental issues out is difficult to do, but that Louisiana was doing it better than others:

> If you want to work at ground zero for you know, innovative and exciting, how do you pair environment, economy, and people all together for the benefit—here is where you need to be, down here. We got every industry you could imagine! We have tons of water; we have this coastal issue that we are working. Nobody else I think has the severity that we have it. I mean we are talking to like the Dutch for goodness's sake! We are interacting with, we are getting ideas from Europe, so if you want to work on significant— I am not saying that we are not smart enough to figure out our problems,

> but we have significant issues, but we are addressing them in the best way we know how, better than other people could do.

The idea that if Louisiana could figure out how to address thorny environmental problems, then it could help other places, served as motivation. For example, when I asked Janelle, a scientist working for a restoration nonprofit, about what keeps her motivated, she said:

> Yeah [laughs] sometimes things go better than other times, and it can be pretty difficult…but I also see that Louisiana, in general and for better or worse, is only the first case of what coastal cities in the US are going to have to experience. And everyone is going to have to grapple with this in their own way, and I think that unfortunately Louisiana has to do it first. But it is not new, and we can learn a lot here in Louisiana. And we can export that expertise when the time comes to help those other places adapt…like if we can figure it out here, if we can just make a little headway, we can actually help other people adjust and do it right. We want to do it right here in Louisiana, and I think that we have a lot of…we have a lot of motivation to do that, but then we can also help others as well.

People also described how they use the frame strategically to continue to sell Louisiana's importance in hopes of securing more support and resources for the state's MP. Jeremy, a director of a restoration nonprofit, believed that other places around the world do not really care about Louisiana, but argued that they might care if they understood how they will be next to experience land loss. He said:

> We are important because we are *the* place in the First World where it is happening first, because of the subsidence rate in Louisiana and because of the internationally important industrial infrastructure that is here, the ports, oil and gas. This is where the First World, where Europe and North America are going to encounter the worst effects of climate change first. So, we are very important, but in the end, no one is going to act because of that. They will act because of what it means for them.

Jeremy's statement also shows how people see climate action as fundamentally tied to economic value, as people all over the globe (who are not in the "First World," as Jeremy puts it) are already losing their land, livelihoods, and even lives to climate-related meteorological events and sea-level rise (IPCC 2014).

People took pride working on the MP because they felt as though Louisiana was leading with "world class" and "cutting-edge" science. At a Governor's Commission meeting, the chairperson, King Milling, reiterated that Louisiana was "ahead of the game" because of the MP, which he referred to as a product of "beautiful minds." People even expressed a degree of awe that they were able to work alongside brilliant people and leading experts in restoration, hydrology, ecology, and engineering. Ben, who works on the MP, said that he had the utmost respect for his colleagues. He spoke with a calm demeanor as he said:

> I am problem solving with a bunch of people that are incredibly bright, like, way smarter than me, people we have on staff, people that we work with. To brag, we are leading the science, you know, globally…there is a lot of competence in this building…everyone is proud of doing innovative and cool stuff…I joke that I could never get hired here anymore because the caliber of the applicants just keeps getting better and better.

He went on to say that what would be a big disappointment for his team is if someone told them not to do the "cool stuff" that they wanted to. He talked about how his team was planning on including depictions of how land loss might be minimized along with global greenhouse gas emissions. He also talked about how his organization did things that other government agencies would think unfathomable, like having a detailed data viewer that is available to the public. He nonchalantly added, "nobody told us not to." In a more excited state, voice raised with a slight laugh, he added that it is surprising, but that out of all the coastal states along the East Coast, "the most freakin' progressive state is Louisiana!" This is significant because Louisiana is not often regarded as a state that is innovating in terms of climate change. In this case, Ben was underscoring just how progressive his agency is.

Like Ben, others expressed a sense of excitement about being part of an agency working on the Master Plan. Reagan, who also worked on past iterations of the MP said this when describing why she was motivated by her job.

> It [the work] is interesting, because we feel like we are on the cutting edge of, because restoration science is a new field. We are ground zero, and so we are doing a lot, and it is a really interesting time. And so being here you really are at the center of it. So it is fun, exciting.

This statement also describes Louisiana as "ground zero" and because of this is part of an emerging discipline of restoration. Rebecca framed her excitement in terms of being a part of an agency with a wide range of interdisciplinary expertise, saying:

> It is like being a part of this beehive, of all these different working parts, it is really really fun and exciting to come to work every day.

Individuals also expressed pride in being able to work for a state agency that was very active and expressed pride in working on the MP because it was unlike other government plans that just "sit on a shelf." Trevor and his colleagues Alyce and Brea explained to me that achievements are based on the coming together of all different types of expertise.

> Trevor: So we just constantly, every year our new biggest project is built. And so I think it is exciting to see everything scale up.
>
> Alyce: And the coordination that comes from it, drawing on as much brain power as we can, and fact checking everything.
>
> Brea: Yeah, because if you think just within our sector you have a geologist, a meteorologist, wetland ecologists, fisheries people, archeologists. It is all these specialty people coming together.

This conversation also reiterates how the MP is regarded as being firmly rooted in scientific expertise, making MP projects credible projects that are worth billion-dollar investments. Their excitement about the projects is in stark contrast to sentiments of frontline coastal communities, whose knowledge about the coast is not sought out as being part of the "brain power" needed to solve pressing problems.

Pragmatism and cautious optimism

Bureaucrats often described themselves as pragmatic. This pragmatism is juxtaposed against the MP, which was described by a handful of academics I spoke to as a "wish list," or as

having economics that "verge on folly." I found that individuals in agencies and non-profits expressed hope and optimism in ways that were still grounded in discourses about reason and science. They often based this tempered optimism on the fact that their organization and other government agencies were "finally" implementing "basin-scale" projects. In other words, the state was finally taking ideas that had been in the design phase for decades and making plans for building these projects. These projects are designed to work on "landscape scales" which means that they could affect hundreds of acres of coastal land. For example, when I asked Carol whether the looming threat of sea-level rise and funding shortfalls put a damper on positive results of projects, she replied by emphasizing that the most pessimistic views about the coastline are overly deterministic. Referring to the end of the next 50 years she said:

> I don't know, it is not inevitable that it is all going to be gone. I think the marsh is more resilient than that.

Corinne, another coastal scientist, expressed her optimism about the future in these terms:

> I am not an optimist at heart. I am a very critical sort of minded person, pragmatic….but I wouldn't be doing what I am doing if I didn't find optimism in the fight.

Similarly, Payton at CRPA said: "We are doing the best with what we have got, which is a form of optimism."

I also found that humor helped to create a sense of positivity around the MP as evidenced by discussions between Trevor, Alyce, and Brea at the CPRA. Right before this exchange, Trevor got his computer out so he could show me maps of predicted land loss (often called the "red map," (depicted in Figure 8) and maps containing all their agency's projects. When discussing the progress they are making as an agency, they said:

> Alyce: I try not to get too downhearted like, we are not going to save the coast this year, but every little thing, or small plan that comes out, every improvement, every model meeting, that is one step closer to laying the groundwork for work that will continue to be done. Like we said, it is a continuous process. It is not like we are ever going to reach a deadline like, hey this year, the seas have stopped rising and the land has stopped sinking,

> everything is fine. We are never going to get to that point, so it is just like a continuous labor of love. Like any other thing, like firefighters, there is no, no end to fires to put out, they just keep doing their work. And it is kind of the same thing, we just keep doing it.
>
> Trevor: I don't want to say Sisyphean, but … [laughs] in the neighborhood.
>
> Alyce: Thanks for being positive [sarcastic, smiles and shakes head].
>
> Brea: And, yeah there is still a lot of red [on that map], but we are doing something.
>
> Trevor: Houma is still there…Thibodaux is still there [chuckles].

Trevor used humor by acknowledging that it might sound absurd or pointless to keep up this project, recalling the Greek myth of Sisyphus who (because of his arrogance) was sentenced to repeat the same task of rolling a boulder up a cliff for all eternity.

In another interview, Miles expressed some caution with the construction of the "red map" as destiny. He reminded me that the map only represented one possible "realization" of what could happen in the future out of many, emphasizing the uncertainty inherent in modeling predicted outcomes, and that the future is not completely knowable. These types of discourses show the nuance in how people discuss the Master Plan and uncertainty, which is in contrast to some accounts in the literature that argue organizational actors do not recognize "unknowable unknowns" (Rayner 2012). However, the discourses that caution against alarmist visions of the future detract from the social problems that are already happening because of land loss. While it is true that future environmental conditions could be less severe than expected, it is still unlikely that community conditions will significantly improve without significant investment, something that is not part of the CPRA's mandate.

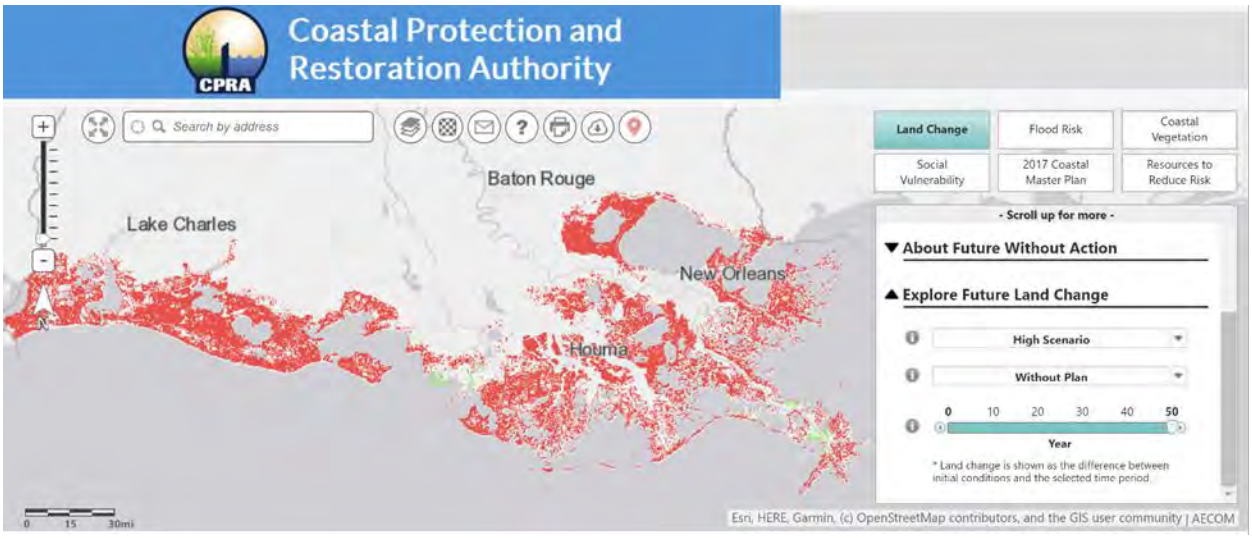

Figure 8. The "red map" of future coastal land loss. This map was generated by the Louisiana Coastal Protection and Restoration Authority's online map viewer. It shoes projected land loss over the next 50 years under a "high" sea-level rise scenario. This map shows land loss projected to occur if no restoration and protection projects are built during this time period.

Binary Framing: Master Plan as the Only Solution and Frontline Communities

In this section I describe how individuals in the Coastal Action Field discussed the Master Plan as not just a good solution, but as the only solution to land loss. I describe these discourses as creating a binary framing of action which codes "staying the course" as courageous and morally correct. I also describe how individuals weigh concerns of communities within this binary framework, meaning that government employees and nonprofit individuals suggest that moving forward with projects is for the greater good, even if it is detrimental to frontline communities.

Move forward with the Master Plan, or "give up"

Narratives framed the Master Plan as Louisiana's only option for dealing with land, and implied that people either support it, or endorse giving up. As Henry, a state employee, exclaimed:

> I just don't think that we have a choice, to just hang it up. I just don't see, so that it isn't really like a super huge endorsement for optimism, but I don't think that pessimists really have a plan at all, the pessimists have no plan.

Similarly, Corinne said:

> We can save more for longer, that may not be enough for some people…I get feedback from friends too, "why bother" they say, but it doesn't seem right to go down without fight…I'm not interested in giving up, no one is here.

Angelle, who works for a restoration non-profit, expressed her motivation as common sense, since she also does not believe in "giving up" and believes that building MP projects are a simple way to improve coastal conditions. She said:

> I find that people are like "oh you are so passionate," and that is not the word I would use. I think I am pretty driven, but I think passion is different… I think that I can see the opportunities and success that could come, and I'm cautiously optimistic…but, I just think that there is stuff that we can do, it is as simple as that. Let's get it done, and then there will be a day when, I am not naïve to the fact, that we might get to a point and we can't make that happen. And so then what? So what do we do then? I'm not saying [we should], throw our hands up and give up.

People also used a false equivalence to describe action. In other words, it is restore the coast, or give up, which obscures how "restoring" the coast for these organizations means supporting the Master Plan and its approach to land loss. As I described in the first chapter, building river diversions that may harm frontline communities is not the only approach to addressing land loss. A tweet from a restoration non-profit, shown in Figure 9, uses this binary framing of action, asking someone why they would rather "restore" the coast than "abandon it." The response in this tweet also reiterates that it is worthwhile to restore the coast because of its economic value and uses langue of "resilience" to frame Louisianians as also not willing to give up.

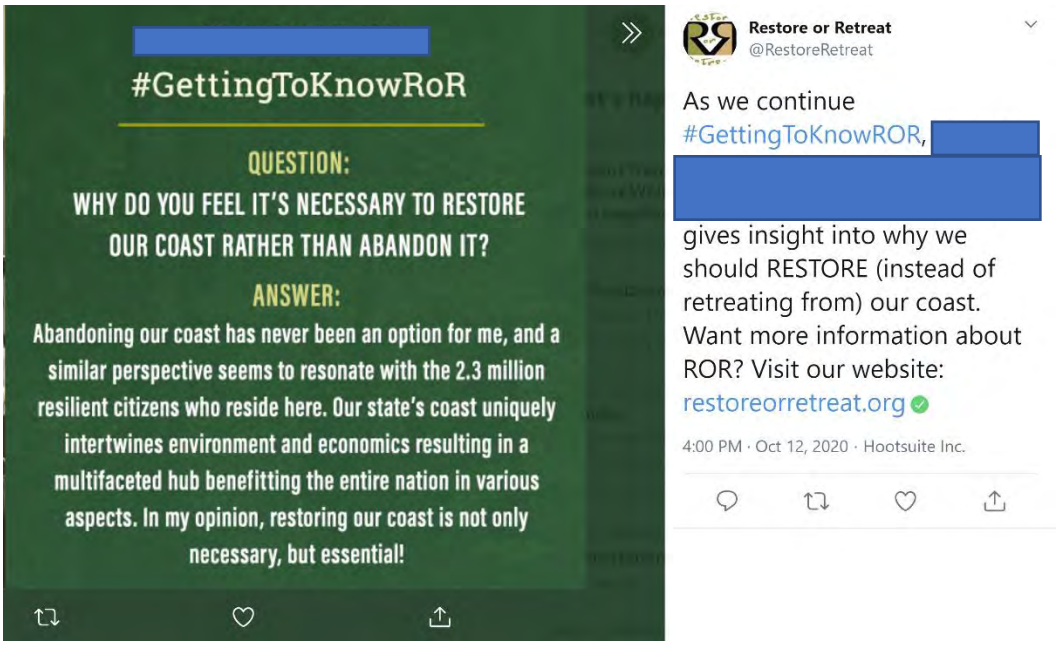

Figure 9. Tweet from restoration non-profit using binary frame.

Discourse around "adaptation" and "resilience" are differently directed, depending on the context. For instance, for frontline communities that will not be protected by Master Plan projects, moving inland or changing their way of life is "adaptation," but in the case of the diversions, not supporting them is "abandoning" the coast.

Discourses I heard about going forward with the Master Plan were also steeped in language about bravery, which could also be gendered. This happened at the coastal stewardship awards described in my fieldnotes. In this case, not giving up by supporting river diversions was something that took courage and "balls." I also heard discourses that were not explicitly gendered but drew on the notion of strength and courage in battle, which are key elements of normative masculinity (Rohde 2016). When I asked, Danny, a coastal native and local official about local sentiments on moving inland he said quickly, without losing a breath,

> When you grew up, were you ever taught to surrender? Were you taught to give up, or were you taught to win? You know, it is a basic thing that is just beat into every human being in the West.

He later went on to describe his vantage point as someone who was not giving up on his

community:

> And, I don't know if noble is the right word, but, I think there is something vital about, maybe not vital…[looks up and then right at me and continues] you know when I was learning how to fly, I was almost finished with the instructor, and we are going back to the airport, and he just reaches out and pulls up the throttle, and is like, okay you have to do an engine-out landing. And we are 3000 ft over suburban Baton Rouge, and fast forward and we are 30 ft off the ground, and all of the restarting the engine options are done, and there is nowhere else to land. And I'm literally about to land this plane a few feet off the ground, and I'm committed to landing this thing in a sugar cane field. And he leans over and he tells me, fly the plane as far as you can into the crash… and there is something—somebody has to do that. And it is the difference between walking away and dying. And it is just vital, important, and messy work. But it has to be done. And keeping the quality of life up for as many people as I can, for as long as I can, that is my prerogative. That is what I am trying to do.

In his statement, Danny uses militaristic language around giving in to liken it to surrender, noting how his community, like others in the West, are strongly taught to resist surrender. Danny then describes how it is almost a moral duty to "fly the plan into the crash" meaning that he will be living in community until it is impossible to do so. This is not the only instance when people used militaristic language to describe land loss. Addressing land loss is often called a fight or a war, and those supporting the Master Plan are likened to warriors or courageous fighters. This language is even directed toward youth. For instance, a youth volunteer program was advertised as empowering Louisiana's next generation of coastal "warriors."

People also expressed a moral obligation of supporting Master Plan projects because it is wrong to waste "God given" gifts. In other words, proponents of the Master Plan, particularly the sediment diversions, point to the fact that Louisiana must use its resources because it is a blessing to have any resources at all in its disposal. This is because people view the Mississippi River as a tool for building land that many other coastal states and countries do not have. In a panel discussion on land loss sponsored by the MRD, a local white woman and advocate of diversions (also termed "grasstop by the MRD coalition), repeated this discourse, saying that the

river is "salvation" and that she would not stop using her voice to talk about the river as Louisiana's "greatest asset."

The literatures on organizations and slow-moving disasters such as climate change stress inertia and inability to surmount definitional and jurisdictional issues across organizational fields as reasons for inaction (Beamish 2002; Clarke 1989; Brulle and Norgaard 2019; Vaughan 1996; 1999). My findings show how actors in an organizational field can be wholeheartedly oriented around action. However, action is also socially constructed. While scholars of risk discuss hegemonic risk framings as those that render risk manageable through the quantification of uncertainty (Clarke 1989; Hardy and Maguire 2016), this case shows how risk is not just framed as manageable, but that it can also be normalized as *not* manageable, meaning that an impending disaster is framed as inevitable, but the negative social consequences are minimized. The disaster is even rearticulated as an opportunity, given the ubiquity of risk within a global society. A key element of negotiating this uncertainty is downplaying the social inequalities that cause consequences to be unevenly distributed. I turn to this in the next section.

"The bigger picture"

Individuals discussed how they know that Louisiana cannot be "saved" in the sense that the whole coastline cannot be put back to the way it was historically. They admit that land is never going to be rebuilt in some areas and that there is going to be more loss of land in the future. However, they were not deterred by this, saying that it was their mission to "preserve what we can" or do the "most we can" with what we have (referring to sediment and funding). Part of this hopeful, yet pragmatic, take was a commitment to doing "the most good," meaning that actors were invested in building projects that maximized land building and flood protection potential. This is cast as an "objective" way of prioritizing resources. This is why the river

diversions are regarded as the best projects, because they are predicted by the state's computer models to build the most land for the least amount of money over time. This is because other options for creating wetlands require fuel to pump sediment, whereas diversions are passive systems (Russell 2018).

Importantly, fisherfolk, including commercial oyster fishers and shrimpers and members of subsistence communities, express concern that diversions will degrade aquatic habitats and decimate their catches. Additionally, some communities, such as the Grand Bayou Atakapa-Ishak/Chawasha tribe, are concerned that diversions could exacerbate flooding risk due to a physical phenomenon known as "backwater" flooding (Peyronnin et al. 2017). This happens when flood waters are channeled through indirect pathways and cause flooding in areas downstream and adjacent to the original source.

When weighing the notion that projects might be harmful to communities (something that often came up unprompted in interviews), scientists, engineers, and advocates of the diversions invoked the language of a "bigger picture" to justify any negative externalities. For instance, Rebecca, who works for the state, said this in our interview: "We understand the concerns that this project may disrupt people's way of life, but it is for the bigger picture." Similarly, Mary, a restoration advocate who works with faith leaders as part of a non-profit said:

> Yeah, and to be clear, like, there are plenty of people who are anti-diversion who have very legitimate concerns about how diversions will change the estuary, the whole point of them is to change the estuary, and we do have to figure out how to address some of those people's concerns, but there is a bigger picture of what needs to happen in the long term in coastal Louisiana if any of us want to keep living here.

Henry, who works in state government administration, expressed the idea that it was the state's duty to preserve the "common good," meaning that the state could not manage the coastal zone according to the interests of one stakeholder, such as fishers. He said that the idea that the state is a protector of a common good is supported by public trust doctrine, saying "who else but the

state can have this prerogative?" The idea of the common good meant that the state was going to try to focus on maintaining as much land area as possible for the benefit of the greatest number of people. This meshes with utilitarian environmental management philosophies. Utilitarian management of the environment aims to maximize the number of people benefiting from government environmental policies and is associated with the use of cost-benefit analyses in decision making (Harrison 2011; 2019; Hemmerling et al. 2020). This management technique also aligns with neoliberal reforms in government, where the slashing of agency budgets, emphasis on fiscal austerity, and concern for continued capital accumulation encourage the use of strategies that are deemed economically efficient, meaning have the greatest economic returns per unit of input (Vig and Kraft 2013).

This logic also undergirds the US Army Corps of Engineers (ACOE) approach to designing and justifying flood protection infrastructure, which is authorized by Congress. The ACOE decision making processes consider the value of expected savings to the federal treasury from projects like levees, which is why their proposed projects inevitably favor expensive properties and more densely populated urban areas. For these reasons, areas like New Orleans are incorporated into levee systems that are paid for by the federal government, but smaller communities without significant infrastructure are excluded. This utilitarian logic was used by Christina, who works in coastal policy and is familiar with the Corps' mode of operation. She said frankly:

> We talk about levees a lot here. But it is just incredibly expensive and so some places will be saved, and other places won't be saved. Um, so I think that is a really tough pill to swallow for people, you know, you live in the bayou, you are not going to get saved. If you live in New Orleans, you might be saved. Right? There is just certain places that are economically justifiable to put the money into, and other ones that aren't, and I don't think that people really realize that here. Or they are just kind of delusional, living way out in the bayou like, no one is ever going to build a levee for you. There is nothing else

> that can save that property, so what are these people going to have to do, they are going to have to move. There is no other solution.

In this statement frames people as "delusional" for not understanding how their homes are not economically justifiable to save. She also underscores that there is no solution to this problem other than having people move.

The notion that projects in the MP maximize overall benefits was contradicted when individuals working on projects conceded that only a few places would be able to be preserved or maintained in the future, even with MP projects in place. I heard individuals say that they just wanted to help communities in any way they could, by helping them hold on to any "little bit" of land they valued. However, what I learned through field work is this is not the case in practice for frontline communities. Individuals working on the MP, for the most part, did not discuss prioritizing projects based on what areas of coastal land are the most culturally or ecologically significant to communities who are the most reliant on those resources. For instance, Native American communities on the Louisiana coast, who were pushed off their original land and had property stolen from them, have long been advocating for restoration projects that protect their sacred land by using smaller-scale techniques such as backfilling (Baniewicz 2020). In contrast to small scale restoration techniques to protect cultural sites, most actors in the CAF emphasized the need to focus on projects that have "the most bang for your buck."

Proponents of big projects like the sediment diversions were comfortable in their assertions that these projects would be successful. For instance, they would often counter the criticism that sediments diversions represented an untested idea; they would say that the coast of Louisiana is proof, in and of itself, that they will work because the coast was originally built by the Mississippi River. Further, they would point to the Atchafalaya delta as a sign that diversions will work. That delta is actually gaining land because it is supplied by sediments from the

Atchafalaya River. However, these discourses still dodge important questions about how sediment diversions will maximize land gain while being operated in such a way as to not be ruinous for fisherfolk and frontline communities. When supporters of diversions were faced with questions about the state and ACOE's history of building diversion projects that damaged fishing habitat, they were quick to mention that the diversions in the MP are categorically different than the types of structures built by the ACOE, which have already been shown to cause damage to fisheries. (These structures built by the ACOE are smaller diversions designed to supply freshwater to estuaries.) But this misses the main point of concern: neither the state nor the federal government has been able to operate diversions in a way that spares fisherfolk from negative impacts.

I heard narratives describing the diversions as the best option because it meant controlled changes to the estuary, as opposed to doing nothing and losing the whole coast. For instance, when discussing opposition to diversions, Angelle argued that fisheries would be destroyed anyway, even if the diversions were not built. Using a binary framing of the action (either implement Master Plan projects or do nothing) she said:

> This is their livelihood, this is all that they have known, yet they see all of the changes, and this is change without projects in place, and we call it a future without action, and that means that you do nothing. And without action the coast will no longer exist, there will be no more fisheries. There will be a total collapse, right? Or you have this future with action, and it does mean changes, but you know, we feel like it means controlled changes, or anticipated changes and things that you could better plan for, verses this future without action that you know is just going to be the end of the story.

This narrative, however, does not adequately capture the concerns and sentiments of frontline community members. For instance, those working with community members note that they are not inherently opposed to projects built by the state. As Daniel, a scientist who works with local Cajuns and Native Americans noted, fishers are not opposed to "having to give up something"; they just do not want to "give up everything," meaning that they are willing to "adapt" in some

ways, but they are concerned that their lives will be upended by the way the state operates new large-scale diversions. He added that they are frustrated by the way the state makes decisions without involving them and without drawing on their own applied expertise and knowledge about the places where they live and work every day. This aligned with what I heard from community advocates, that they want to be at the table because they also feel that their ecological knowledge could be useful in designing projects that are still successful in rebuilding wetlands, but that will not negatively affect their communities. Donna, a tribal elder, told me this when discussing the Master Plan projects:

> If you can look down the road and see that you've just wiped out an entire community and the people by what you've just proposed to do, then that should not even be an option…it all boils down to love, really. If what you are doing does not have love for everyone—and that is all of our relations, that's the plants, the animals, the people. If you are going to impact those, then you really should not be [doing it].

In this quote, Donna sums up her people's philosophy as one of "doing no harm" which is bound up in love and respect for people and the natural world. She does this to contrast the Master Plan's approach which she says does not adequately recognize the value of frontline coastal communities.

Conclusion

In this chapter I show how members of the CAF discursively support the Master Plan and position it as the best option for addressing land loss. In doing so, they justify the power of the oil and gas industry, naturalize social inequalities, and undermine concerns of frontline coastal communities. I first discussed how individuals negotiate Louisiana's identity as an oil and gas state and how that shapes restoration of the coast. Narratives convey a sense of acceptance (albeit reluctant) that this was the reality in which they had to operate and even a sense of dignity in Louisiana's "working coast" label. The cultural and political economic backdrop constrains

options to address land loss, and members of the CAF, including scientists, planners, engineers, project managers and coordinators, and non-profit directors and staff described themselves as making the best out of imperfect circumstances to address land loss.

Additionally, individuals drew on discourses of leadership, science, and pragmatism to position the Master Plan as the only way of addressing land loss. They described the state as capitalizing on the opportunities that are available, such as funding from disasters and oil and gas production to take action. They framed action as either staying the course, in terms of moving forward with the Master Plan, or giving up. These notations are associated with bravery, willingness to do battle, and concern over not wasting "God-given" gifts. Concerns of frontline communities were then weighed within this binary, meaning individuals that support the Master Plan projects said that there is a "bigger picture" to be considered.

Theoretically, this process of constructing the "bigger picture" is a struggle over hegemony, or an ideology that defines shared interests or a common good. Here, in coastal Louisiana, social justice claims were reframed as narrow and shortsighted. Communities that have been historically marginalized are considered just one set of "stakeholders," even though they are in danger of losing their livelihoods and cultural identities. These concerns, however, are not given serious attention by many members of the CAF who minimize their concerns by focusing on a "bigger picture." This notion is supported by a utilitarian philosophy of environmental management that seeks to maximize benefit under constraints. I do not wish to suggest there are not material constraints that individuals in the CAF work within, including financial and biophysical constraints. For instance, scientists believe it is physically impossible to rebuild the whole coastline given the amount of sediment that is left in the Mississippi River. Constraints are also imposed by powerful actors such as the oil and gas companies and private

landowners who were responsible for wetland destruction and who will not agree to remediation projects on their privately held land. What I do assert, however, is that people continue to rationalize injustices. Although the discourses I describe in this chapter dominated the field, I did find individuals who challenged them, as I turn to in the next chapter.

CHAPTER 6

MAINTAINING LEGITIMACY AND HEGEMONY: COASTAL ACTION FIELD REFORMS AND IMPLICATIONS FOR ENVIRONMENTAL JUSTICE

> In his silver Mitsubishi truck, Chuck and I cross a swing bridge over a narrow channel of brownish-blue water called the bayou "petit caillou." Chuck looks around and says, "you can tell from the looks of it that this place is just barely hanging on." We turn the corner by the first stop sign, and I look over at a wooden home in the distance. I see a middle-aged man standing out beside the road. His white shrimping boots are speckled with mud. He is wearing a grey sleeveless t-shirt—almost long enough to cover a pair of dark denim shorts. This man squints his sun-tanned and leathery face and catches our glance. Chuck gives him a nod and slight wave while steering the truck. We then pass a group of men sitting around on white lawn chairs next to a modest-looking red brick home. Chuck's voice raises and his lips curl into a slight smile, he exclaims, "you see that!" I look more closely and see what looks like a dark woven blanket sitting in their laps. Chuck points and says in his deep Cajun voice, "they are mendin' their nets." It takes the day riding around together for me to understand what his excitement was about when seeing these sights, seeing people in their day-to-day routine. Chuck tells me this is the kind of thing he hopes his students see when they come out here. He says when he takes his students, who are interested in ecology and biology, out in places along the coast, he teaches them about the crabs, and the birds, and the trees, but what he really wants them to see and gain an appreciation for is the people. They are the "real endangered species" after all, he says.

In this chapter I answer the following questions: How do bureaucrats, scientists and members of non-profit organizations discuss reforming the state's approach to addressing land loss and climate change; and secondly, what are the implications for how the Coastal Action Field prioritizes environmental justice? In the previous chapters I showed that technocratic risk management and the building of engineered structures (embodied by the state's Master Plan) is the central project of the Coastal Action Field (CAF). The field is characterized by power inequalities between political economic elites, government administrators, scientists, and coastal communities. I used a neo-Gramscian lens to argue that this project is *hegemonic* in the sense that it represents a consensus on how to approach land loss that is negotiated among parties with

unequal levels of power. I then described how discourses among members of the CAF function ideologically to frame Master Plan projects as necessary for the greater good and as the state's only option for addressing land loss.

In this chapter I show that government employees, scientists, and non-profit employees seeking to reform the CAF do so in ways that maintain that consensus and guarantee its continued legitimacy. Organizations maintain legitimacy by decoupling values and commitments from practices and actions (Meyer and Rowan 1977; Pache and Santos 2013), meaning that an organization may rely on symbolic gestures to signal commitment without changing the way it does business on a day-to-day level. This is often done in conditions of uncertainty, or when an organization faces competing institutional demands (Besharov and Smith 2014). Decoupling may be a response to an organizational field's material environment, but it may also be related to cultural constructions. For instance, Harrison (2019) showed how cultural and discursive mechanisms contribute to the decoupling of environmental justice policy with organizational functions in regulatory agencies, indicating that bureaucrats delegitimize environmental justice and frame it as inconsistent with their professional identity. I add to this scholarship by illuminating how reform in the Coastal Action Field is tied to concerns over scientific and political legitimacy, and I analyze the implications for environmental justice.

In the first part of this chapter, I describe evolving politics around climate change and the role the oil and gas industry has had in land loss. I describe bureaucrats and non-profit employees' concerns over legitimacy as leading to significant discursive shifts or reforms in how the CAF approaches climate change. However, I question whether these reforms present a significant challenge to political-economic systems responsible for climate crisis. Furthermore, I outline how reforms still fall short in terms of prioritizing environmental justice.

In the next sections I illustrate how individuals strategically work to integrate equity into the Master Plan and focus more attention on the concerns of frontline coastal communities. I show that their efforts are often met with resistance and are discursively undermined on the grounds of legitimacy; that is, making community participation and equity top priorities in the Coastal Action Field is framed as outside of its purview, not scientific, or even detrimental to the field's goals. I show that discourses about the goals of the field (building engineered projects and using science to predict future changes) reinforce constructed boundaries around what types of action are valid. I also present evidence of how reforms in the areas of community participation and equity can be counterproductive. That is, reforms can function symbolically and be used to deflect criticism. Therefore, I argue that reforms have not resulted in a meaningful shift toward integrating environmental justice into the CAF.

Reforms Around Climate Change and the Oil and Gas Industry

The Climate Task Force

Scientists have become more direct in their pronouncements that accelerated sea-level rise, caused by increasing greenhouse gas emissions, will be the primary factor driving land loss in Louisiana over the next decades (Day et al. 2019). A recent scientific study concluded that if sea-level rise continues unimpeded, the point at which coastal wetlands can no longer keep pace with rising seas will come sooner than expected (Marshall 2020; Törnqvist et al. 2020). Coastal scientist Donald Boesch explained it simply by saying, "the existential threat to future habitation in coastal Louisiana is global sea-level rise," which must be addressed through limiting greenhouse gas emissions (2020).

Climate change is a limiting factor to the effectiveness of the Coastal Restoration and Protection Authority's (CPRA) Master Plan. Sea-level rise, increased precipitation and flooding events, and intensifying tropical storms limit expected gains from protection and restoration projects (Day et al. 2019). Additionally, these limitations result in ever more costly measures to mitigate against flooding. For example, the state's hurricane storm surge protection system relies on an extensive array of storm walls, levees, and pumps that are designed to keep water out of urban and residential areas. As the sea level rises, the natural gradient that allows water to flow back out to the Gulf is reduced, meaning that more areas need to rely on pumps to dewater. Pumps are energy intensive, expensive to operate, and have failed or were inoperable after recent storms.

Additionally, the coast faces a dangerous situation in which hurricane protection is hindered by existing high river levels caused by upstream flooding. This situation happened in 2019 when Hurricane Barry was approaching the coast as a category one storm. The fear was that Barry would cause extensive damage since the Mississippi River was already cresting after a year of heavy rain across the country. Before Barry hit, the Mississippi River was so high that the U.S. Army Corps of Engineers was poised to open a spillway that would flood farmland in Southcentral Louisiana (Perez 2019). The ACOE and the CPRA believe the only reason that the spillway did not need to be opened was because a levee in Arkansas burst, releasing enough pressure to prevent levee overtopping in Southern Louisiana. This storm also highlighted the vulnerability of coastal communities. It was a weak storm yet caused widespread flooding in low

lying areas, resulting in helicopter rescues of citizens on the island[12] of Isle de Jean Charles (Dermansky 2019).

On February 20th of 2020, Governor John Bell Edwards announced the formation of a Climate Task Force to provide recommendations on how to reduce greenhouse gas emissions in the state. At the inaugural meeting of the Task Force, Edwards announced a renewable energy initiative for developing offshore wind energy. The official rhetoric from the state about the Climate Task Force is that it will ensure climate change does not limit the effectiveness of coastal restoration and protection projects and accelerate coastal vulnerability. A press release on the Task Force from the Governor's Office describes the rationale:

> Looking ahead, coastal challenges will be exacerbated by climate change. According to the Intergovernmental Panel on Climate Change (IPCC), greenhouse gas emissions are warming the planet and threatening human and ecological health and wellbeing. Reducing greenhouse gas emissions can slow global warming and decrease the magnitude and speed of future sea-level rise and enable greater opportunities for adaptation in areas like Louisiana (LAOG 2020).

The press release also quoted the CPRA chairman, Chip Kline, who added that this Task Force marked a shift in the state's position on climate change. Appealing to the state as a leader in tackling a root cause of coastal vulnerability, he said:

> With our Coastal Master Plan, Louisiana has led the nation in adapting to environmental change. It is time we take a more proactive stance on one of the largest drivers of that change: greenhouse gas emissions.

I heard from people who felt this was a big win for transitioning the state away from fossil fuels. For instance, one local leader who has been involved with the Master Plan for a number of years (and has also been quite critical of it) explained that the Task Force was not a

[12] The geographic place of Isle de Jean Charles is popularly referred to as an "island" although it is a narrow strip of land alongside a bayou. Most inhabitants are members of the Biloxi-Chitimacha-Choctaw tribe.

political machination to feign action on climate. She said that her organization was playing "inside baseball" to push the state to create the Task Force in the first place. She said that the state must take "baby steps" with concrete actions for any progress to happen. She conceded that those steps are not on the order of magnitude needed to fully address climate change, but she added that baby steps are still necessary to get to larger steps. She felt a palpable sense of pride and hope about the Climate Task Force, asking me in an emphatic voice in our interview: "can you ever imagine in the state of Louisiana that a governor would create a climate change mitigation task force? I mean, that was all us [our organization]." I saw her point. The Task Force does stand in sharp contrast to the state's longstanding history of climate denialism.

Other members of the CAF expressed concern that if the state did not start to take climate change seriously it would hurt the Master Plan's credibility with federal funders. This is because organizations like NOAA oversee parts of Louisiana's award money from BP legal settlements and other sources of federal funding. Madison, who worked on coastal restoration policy, posed the following questions to me when describing her concerns about legitimacy:

> Are we being hypocritical? By just talking about, and I don't know the answer to this, I am just asking a rhetorical question. This is me speaking as an individual. Are we being hypocritical by putting out this very ambitious coastal Master Plan and ignoring the causes of one of the primary causes of coastal erosion? Are we hypocritical about it? Will people take us seriously? Will we be looked at like the boy who cried wolf? Will that be Louisiana? That is what I worry about [shakes head]…that is what I worry about. I worry that we can't remain legitimate in the eyes of congressional leaders and others if we are not really dealing with the problem, or at least acknowledging it.

Madison went on to say that her organization must strategically decide when to speak out against the fossil fuel industry and its contribution to climate change because of this context. Similarly, Leigh, who worked on community engagement around restoration projects, said that while the Walton Family Foundation-funded Restore the Mississippi River Delta Coalition (MRD) has

been hesitant to call out oil and gas companies in the past, this is slowly changing because climate change is making their silence untenable. She noted that the political tide on climate was turning and this was emboldening members of her organization. We discussed this in the following exchange where she describes how her organization's position used to be singularly focused on "adaptation," which was code for not addressing the fossil fuel industry or emissions:

> Leigh: I think that for most of the people on the ground, there is that contradiction, "oh so you are working on restoration, but you don't [voice raised and lets out a laugh] have a very strong policy on emissions." Our line of, "we work on adaptation, not mitigation" is, I think, it just gets harder and harder to hold, because it doesn't make any sense. We say all the time, the excuse for not working on emissions is just that we are 100% focused on climate change adaptation; we do not work on mitigation. And I think that argument makes less and less sense, the farther down the road we get. Not only to the public, but internally.
>
> Simone: Are there conversations about that fact in the organization?
>
> Leigh: Yeah, and I think that we are going to move into that conversation. I think that the Governor talking about climate change, for the first time publicly, really ever, is a huge turning point. I think there is this, we are, I think we are protecting something that doesn't really need to be protected anymore. I think the conversation has moved far enough, and I think there is admission of that. And there are, there are plans, at least on the science side to really start looking at what it would mean for Louisiana, if we reduce emissions, what that looks like on the landscape. Um, so I think we are getting there, it is just slower than people want.

Like Leigh, who referred to the need to remain legitimate in the eyes of the public, Henry also discussed his relief that the state now had a Task Force on climate. Henry, who works for the state, told me that he often speaks to students about the Master Plan. He said that the first response students have when they hear about the state's coastal program is to ask what the state is doing to limit climate change. He expressed relief that now, with the creation of the Climate Task Force, the state has a concrete answer. He said that he is proud and excited that now the state is "leading with action, not just the rhetoric."

The argument could be made that the state's Climate Task Force serves the strategic purpose of getting out in front of climate under the guise of action. Indeed, as the discourses here show, people are already discussing how Louisiana will be leaders in climate mitigation, a position that is dubious considering the state has not released any binding regulations or plans for stopping extractive activities that contribute to greenhouse gas emissions. It should also be noted that when the Task Force is mentioned by bureaucrats, they are quick to follow that it will be a market-and business-friendly initiative, saying that the Louisiana business community has the potential to develop and lead the market in carbon storge technology. This neoliberal approach to emissions reduction is referenced in a podcast produced by the MRD. The podcast hosts interview the chairman of the CPRA, Chip Kline, who boasts about the innovative spirit of the new climate task force by saying:

> Up to this point we were just reacting. We have never been pro-active on climate change. But now, the Governor is creating this climate task force, and it has industry as representatives, and it is not just about regulation. It is about innovation, innovation in carbon storage technology (MRD 2020).

Environmental sociologists warn against reformist and neoliberal approaches to climate policy, emphasizing how these approaches preserve the interests of the power elite (Brulle and Norgaard 2019; Ciplet and Roberts 2017; Downey 2015). Furthermore, the Task Force discourse is still lacking in an acknowledgement of the justice implications of climate change or climate action. On this front, there are reasons for optimism as the Task Force membership includes some known environmental justice advocates, including a regional leader of the climate justice movement, the chief of the Grand Caillou/Dulac Band of Biloxi-Chitimacha-Choctaw, and local non-profit leaders. But the Task Force also includes representatives from the fossil fuel and petrochemical industry, including the Louisiana Oil and Gas Association, the Louisiana

Chemical Association, and the electric utility company Entergy. As such, it is not clear how much power community leaders will be able to wield.

Holding oil and gas companies responsible for canal dredging

As the previous chapters outline, the formation of the Coastal Action Field (CAF) was tied up in the blunting of calls for industrial regulation in Louisiana's coastal zone. As the CAF developed, and as powerful players such as big philanthropic foundations became involved, the discourse around the oil and gas industry's role in land loss became overshadowed by a discourse around the federal government's role in the crisis. However, calls for oil and gas companies to pay for damages to the coast had not completely disappeared when I was doing fieldwork in Louisiana. After John Barry's 2014 lawsuit against oil and gas companies (filed on behalf of the Southeast Louisiana Flood Protection Authority-East) made headlines in Louisiana, individual parishes also pursued this legal avenue for seeking compensation and paying for coastal restoration and protection projects.

The Governor and the Restore the Mississippi River Delta coalition (funded by the Walton Family Foundation) both made public statements expressing support for the parish lawsuits. People used a discourse of responsibility and fairness when explaining their support of the lawsuits. John, a long-time coastal restoration advocate and lawyer, put it like this when discussing legal action, "so this isn't a blame thing, but it is a responsibility thing." He then pushed back on popular narratives about oil and gas companies being good neighbors, saying:

> What I have seen with oil and gas is that they have been seeking to avoid responsibility, that they have, and are doing everything they can to avoid ever having to show up in court. Even to the point of running tv ads about how greedy lawyers are, and how we are all really one family, well, this is not family. And the companies are not… they won't be here in the future, because they are in the mining business, and all mines close at some point.

Similarly, appealing to the court of law as a fair arbiter, a press release from the MRD regarding the lawsuits reads:

> There is broad scientific consensus oil and gas activities caused damages to our coast. A court of law is the appropriate place to determine whether individual companies bear some of the responsibility, and there is a well-established process for citizens, through their local parish governments, to seek redress of damages. Louisiana's Legislature should not short-circuit the judicial process and deprive local governments and coastal citizens of their rights.
>
> Our groups recognize that not all oil and gas companies operating in Louisiana are responsible for the damages done over the course of a century. At the same time, a short flight over our coast clearly shows the extent of the danger we face. Coastal land loss makes our communities, infrastructure and wildlife less secure in the face of saltwater intrusion and increased flood risk.
>
> Louisiana is losing land, and we're losing time. It's vital that an impartial judicial process be allowed to proceed to determine responsibility for specific damages — and that any fines imposed go to the urgent task of restoring our coast. We can then move forward together with making our communities, infrastructure and wildlife more secure in the face of land loss and sea level rise (MRD 2020b).

The MDR put out this statement because measures to kill the lawsuits have been making their way through Louisiana's conservative state legislature. A senate bill to quash the suits, SB440, was almost signed into law in the spring of 2020. The bill failed, representing a blow to oil and gas executives who made defeating the lawsuits their "number one legislative priority" (Bridges 2020). The law firm representing the parishes characterized the defeat in this way:

> The taxpayers of Louisiana had a huge victory today because they're not going to have to pay to restore the coast of Louisiana. Big Oil, which damaged the coast, will have to pay for provable damages caused by their operations, and the coast of Louisiana will be restored (Bridges 2020).

This discourse reasons that it should not be on the taxpayers of Louisiana to pay for damages incurred by oil and gas companies, and that this is only fair given the power and resources oil and gas companies have.

The statement of the MRD is significant in that it represents a shift away from the silence many of these organizations exhibited during the 2014 John Barry suit. In a tweet about the recent lawsuits, the Coalition to Restore Coastal Louisiana (an organization in the MRD) showed its agreement with the notion that it is "fair" for oil and gas companies to pay for damages. In another tweet, the coalition posted a quote from a parish president who said oil and gas companies should stop polluting if they do not want to be sued. CRCL reposted the tweet and underscored the sentiment simply with a bull's eye emoji.

Figure 10. Tweets from restoration non-profit regarding lawsuits against oil and gas companies.

Concerns over legitimacy mean that more organizations in the CAF are shifting their political stances regarding climate change and in relation to lawsuits against oil and gas companies. Maintaining legitimacy means accepting that it is no longer a viable position to deny the role oil and gas had in destroying coastal wetlands. This is also strategic because these organizations are seeking to exhaust all options when it comes to funding their work. As Madison told me, her organization believes legal penalties from oil and gas companies could create a steady source of funding for restoration.

However, neither the state, nor the MRD, is pushing for those compensation dollars to be used to backfill oil and gas canals. The state, and restoration non-profits, do not emphasize backfilling as a viable option for restoration while many coastal communities support backfilling because it is relatively inexpensive and has more immediate benefits (Merino et al. 2011; Baustian and Turner 2006; Turner and McClenachan 2018). For example, several Native

American tribes are consulting with coastal scientist Eugene Turner to do a backfilling project that would protect tribal sacred sites (Baniewicz 2020). The project is not being funded by the state because this project does not meet the CPRA's evaluation criteria to be part of the Master Plan (Lux 2017). Thus, it is unclear whether funds from oil and gas lawsuits would be used to fund these projects of importance to communities, or whether they would fund large-scale sediment diversions that are central to the Master Plan and the Coastal Action Field. In sum, funding from lawsuits does not necessarily equate with compensation to the communities who suffered the most from the actions of oil and gas companies and from development that promised wide-spread social benefit, such as the Master Plan does now. As Donna, a tribal elder told me, oil and gas companies tore through the wetlands her people depended on, promised to backfill the canals, and never did. She added this harm was "all in the name of progress" and posed this question: "if your progress was rooted in oppression, is it really progress?"

Strategic opposition to development

Members of the Coastal Action Field did oppose industrial development projects when those projects were viewed as threats to the effectiveness of restoration projects. Currently, there is a boom of industrial activity happening in the coastal zone associated with the development of liquified natural gas production, storage, and transport. One project of particular concern is a liquefied natural gas facility and export terminal (Tallgrass project) which is slated for construction directly upstream from a sediment diversion. Restoration advocates and scientists warn that the development will negatively affect the diversion and its land building capacity by disrupting the flow of river sediment. Although development in the coastal zone has not been questioned by some organizations in the CAF in the past, because the Tallgrass project may disrupt a sediment diversion, actors are stepping out of their traditional position on development

and speaking out about the project. Christina, who works in coastal policy, described the tension between oil and gas development and restoration in the state as one of the biggest obstacles her organization faces. She said:

> I think there is like a consistent tension between development, like oil and gas, and the environment. It is not as bad as in other places, but you know, they want to develop the coast, bring in more liquified natural gas plants now, for instance, that is the big thing now. They are putting them in places that we have restoration projects going on, and like, what happens if all these projects fail, and hurt the restoration projects? I think that is a constant tension. We live in a very oil friendly state. I think that is a big deal.

Others in the field are actively working to stop the development, such as the anti-fossil fuel organization Healthy Gulf. A campaign manager at Healthy Gulf, Dakota, discussed with me the state's hypocrisy in pushing for these natural gas developments. Underscoring his frustration, he emphasized that the restoration project being threatened is the state's "moonshot" for saving the coast.

> Even as we talk about the need for coastal restoration, politicians and elected officials, bureaucrats pretty much up and down every level of the government are actively permitting projects that would continue to make the problem worse, or in some cases actively weaken, or do things that could make restoration projects work less well…it is like, this actively—the flagship project in the whole Master Plan! The thing that we are—the moonshot, you know! We are potentially putting that at harm just to permit an out of state company to have an export terminal to export oil to other countries.

While Dakota's organization regularly engages in direct action to stop industrial developments, the Walton-funded Restore the Mississippi River Delta Coalition (MRD) only recently decided to speak out about these types of projects. Madison noted that it is true that from a strategic perspective the coalition often chooses not to oppose the oil and gas industry. However, she noted that it will take a stand when restoration projects are threatened. She said to me:

> What I will say about our coalition is that we strategically place ourselves in the position to not fight against oil and gas. To get anything done in Louisiana you have to be strategic. And so, we have opted to not take the traditional role of any environmental group, and fight what is just like, the good cause.

When I asked Madison what this meant about opposition to the Tallgrass terminal she said, "oh but we have done it [gone against industry]." She went on to explain how she and her organization were engaging in legal actions to stop permitting for the facility.

Robert, who worked in the MRD, voiced frustration that the only reason the MRD was opposing natural gas plants and facilities was to protect sediment diversions. Robert doubted that the MRD would oppose these projects if they were slated to be built in any other area. Speaking without hesitation when I asked him about the MRD's opposition to the projects he said:

> The only reason they did that is because it is on the side of the sediment diversion, like, it is a bad project for a number of reasons, but the grounds on which they oppose it is purely the fact that it is right upriver from the Barataria diversion. I promise you that if that project were a mile south down the river, or 20 miles north, they wouldn't say anything about it. And you know we didn't say anything about the Bayou Bridge Pipeline, which is like a pretty obvious example of what we shouldn't be doing if we want to protect the coast, let alone restore it.

Robert's statement about the Bayou Bridge Pipeline puts into focus how organizational coalitions like the MRD do little to address environmental injustice and racism. The BBP (the tail end of the Dakota Access Pipeline) is set to cross a large area of southern Louisiana, including many Black and Native American communities that have organized against its construction (Dermnasky 2018). Although speaking less critically than Robert, members of the MRD did express admiration for organizations like Healthy Gulf that worked to stop industrial projects like the BBP along the coast. They expressed these views as their personal opinions, contrasting the work of their organization from that of organizations like Healthy Gulf. For

instance, Madison contrasted her organization to organizations working on environmental racism. She framed these organizations as doing the real important work, "God's work" even:

> There are some organizations that are really out there doing God's work. And that is amazing. But in order to remain legitimate in the eyes of the legislature, and others, you have to be strategic about it, and that means teetering the line, walking a fine line sometimes.

Madison's comments underscore how working in opposition to industry, and thus working for environment justice, is seen as a threat to political legitimacy.

Mary, who also works with the MRD, justified their position as simply staying in their own lane. She told me how she contributes monetarily to Healthy Gulf because she sees their work as vitally important and something that her organization does not do, by design. She explained:

> I personally am of the opinion that organizations do need to stick to their mission and do the thing that they are setting out to do and that is takes sort of an ecosystem of organizations all pulling in their own directions with their own strategies to create the whole ecosystem of restoration work that needs to happen. That said, we stay in our lane; we don't engage in any of the Cancer Alley stuff, the oil and gas stuff, the climate change stuff, we are very narrowly focused on restoration.

This sentiment also shows how organizational actors conceptualize their roles in the coastal space vis-à-vis other organizations, as when Mary used an ecosystem analogy above. However, it is important to note that Healthy Gulf does not have the same access to the state that the MRD has. An ecosystem analogy obscures power relations among organizations. As Robert reminded me in our interview, MRD is "the big boy in the room" and has much more sway with government leaders than what he called the "scrappy" environmental organizations like Healthy Gulf, the Sierra Club, and the Louisiana Environmental Action Network. These organizations

engage in more direct action to oppose industrial developments that disproportionately affect communities of color and working class communities in Louisiana.

Reforms Around Community Participation and Equity

LA-SAFE and traditional ecological knowledge

Another important critique of the Master Plan is that it is top-down and technocratic (Colten 2019; Gotham 2016a; Randolph 2018). I came to find that members of the Coastal Action Field spoke about a particular initiative as representing the alternative to the top-down model of the Master Plan, the Louisiana Strategic Adaptations for the Future (LA-SAFE) initiative. It engaged six coastal parishes in a planning process that was designed to be a bottom-up process, or a more democratic means of producing resilience plans and letting communities decide on how to spend funds. The southeastern parishes included in the initiative were all negatively affected by major hurricanes, and they also are experiencing significant land loss (Couvillion et al. 2017). There are numerous CRPA restoration and protection projects planned for those parishes, but they are still facing increasing risks as more land is lost every year. Therefore, the bureaucratic rational of the initiative was to "fill the gap between increased risk and eventual benefits of coastal protection and restoration projects" (Birch and Carney 2020 p. 325).

As part of the LA SAFE initiative, stakeholders produced parish resilience plans and designed and voted on community-centric projects that were funded by the federal government. Several people close to the initiative that I spoke to noted how great it was to see residents come up with projects far different than anything the state has ever designed. Plaquemines Parish residents decided to use their funds to build a secure harbor that provides a place for fisherfolk to

shelter their boats during storms. They also used their funds to expand mental health and substance abuse programs. The LA-SAFE initiative was developed and coordinated by employees in the Office of Community Development (OCD) and contributed to collaborations between this office, CPRA, community-based organizations, and community foundations, like the Foundation for Louisiana. The OCD also relied heavily on the mapping products that CPRA creates, including maps of predicted future land loss. LA-SAFE helped connect CPRA employees to community-based organizations, which helped expand the CPRA's own public participation efforts. The CPRA subsequently hired an individual who previously worked on the LA-SAFE project as an employee of a community foundation.

The CPRA also funded researchers to better incorporate community and local knowledge into the Master Plan process. Scientists and social scientists at LSU Sea Grant and the Lowlander Center worked with community members to integrate traditional ecological knowledge (called the Sci-TEK process) into the Master Plan's scientific process. One member of this effort that I spoke to, James, said he was motivated to do this work because he saw how much rich local and Indigenous knowledge was being wasted in the standard Master Planning process. He said that locals have extensive experiential knowledge and expertise that is not being meaningfully captured and used by the CPRA. The CPRA eventually funded the Sci-TEK work, and James was hopeful that the CPRA would continue to draw on this process. He spoke positively about the types of information and knowledge sharing the process sparked, saying that officials at the CPRA were meaningfully engaging with local experts as part of the process. A non-profit employee, Landon, who was part of the Sci-TEK work echoed James's sentiments, recalling how he witnessed members of the CPRA learning things from locals:

> I often cite how one morning we met the [CRPA] project managers at a McDonald's. And the intent of meeting, we wanted to prepare them for what we are going to go do: we are meeting with you now, and then we will carpool down to the boat dock, and then we are going to get on a shrimp boat. And literally these two are like, "well we are just here for you. We go out all the time. We know these waterways, and we know everything." Basically, these people were like we are here because our boss said you have to go play nice with this effort, and they had no anticipation that they were actually going to learn anything new. And every time without fail, within 15 minutes on a boat, or the first stop we pulled up to where the fisher wants to show them something, the CPRA people start taking notes and pictures and saying, "oh wow, we didn't realize," and it showed some critical things. Maybe not completely in the explicit vein of the goals of the project, but it just showed that creating space for this exchange of knowledge, where especially you are putting the TEK expert in charge, and using their knowledge and expertise and their value, and they are in a comfortable place, then it is just a really amazing process.

James was encouraged by how this method was being explored by other agencies. He said, for instance, that the CWPPRA program relied on some of their TEK information to inform its wetland project evaluations. Because of this he felt that this process "did influence some projects on the ground."

Despite this optimism, my data also suggests that these projects had some counterproductive effects. They signal action, but in doing so, they stymie calls for continuing to change the MP process. Landon described this problem: the TEK process gave members of the CPRA something to grasp onto when challenged, shutting down conversation and dialogue for more systemic change. He said that the CPRA funding TEK projects was a double-edged sword in this way. He explained:

> Yeah, at a minimum it gives us something to point to, which is good and bad. It gives us [TEK proponents] something to point to. But then it also gives CPRA something to point to. You know there has been meetings where, when challenged by the public who say, "well what are y'all doing as far as incorporating Indigenous knowledge into plans," and the CPRA will say, "oh you know we value, we went through this Sci-TEK effort. And so it is like, it gives them something to say, "oh yeah we care about it, we funded this study and this report," and it was like yeah, but you didn't continue it. It didn't change the way that you do business.

I also witnessed similar moments. When confronted with tensions regarding their work, people often discussed successful projects to steer the conversation in a positive direction. For instance, individuals would bring up the LA-SAFE initiative to convey that the state was taking community participation seriously. However, those close to the project expressed doubt that it would ever be reproduced, saying that it was unlikely the federal government would give Louisiana more money for similar types of programs, and that the state does not have enough funds, or political will, to expand the program. Bureaucrats suggested that community-centric programming and planning for adaption would have to happen locally instead.

Recognition of racial inequality and dispossession of Native Americans

There was some criticism of the CAF having to do with its lack of diversity and its lack of engagement with communities that are racialized as non-white, such as Black communities. Vanessa, a Black woman who worked for non-profit, argued that most environmental organizations' approaches to community engagement prioritized white communities (including working class Cajun communities). She felt as though the restoration space was one where "white professional" and white concepts of environmentalism dominated. She said:

> I think that the history of the conservation and environmental movement is extremely racist…the whole concept of "outdoors," that is a white concept. Most communities of color and cultures consider themselves part of the environment; there isn't a [separate] outdoor space, and I think that folks of color engage differently in the outdoors, maybe instead of going on a hike, there is a gathering by the river, there is food and music and games to enjoy together.

Vanessa said she was hired to address the lack of engagement with the Black community in her non-profit and in other organizational coalitions. She had not been in the work long and expressed mixed sentiments. Although she felt people in the Coastal Action Field

were coming around to the importance of extending outreach to Black communities, she also felt as though people in the field were not deeply interrogating patterns of racial exclusion. It is also important to note that individuals often drew on racial categories that overlooked Hispanic and Southeast Asian communities. While I heard more mention of Southeast Asian communities, I consistently found that Hispanic communities were erased from conversations about racial and ethnic diversity. This is also complicated because like Cajun people, Isleños communities are sometimes racialize as white, while Latinx people from Mexico and Central America are racialized as non-white.

People in the Coastal Action Field also expressed concern over issues coming up over relocation. Indeed, the relocation of the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw was something that everyone in the Coastal Action Field was aware of, and that almost everyone mentioned in passing during interviews. Many people I spoke to expressed concern that the process was not going well, and I heard people say that the state was not going to "do right" by the tribe. The prevailing fear they expressed was that the state would fail in the goal of preserving the cultural and social fabric of the community. One government employee used strong language saying that the relocation was an example of "institutional racism" and that it was a shame the state and federal government refused to help the tribe adapt in place. This person was referring to how the U.S. Army Corps of Engineers excluded Isle de Jean Charles from a proposed levee system because including the community would not be cost effective.

Social scientists who have studied the relocation effort describe the main problem being that the state was unwilling to recognize the autonomy and authority of the tribe and tribal governance, turning the relocation process into a state-led process and not a tribal-led process (Jessee 2020). Tensions between the tribe and the non-profit working with it mounted when

officials at the state became aware that residents on the island of Isle de Jean Charles belonged to different tribal nations (Yawn 2020). Officials then began to talk about the relocation as a process for residents of a particular geographical place, the island of Isle de Jean Chares, not a process for a particular tribe, further undermining tribal leadership. Jessee (2020) writes that the relocation process is an example of colorblind and ahistorical adaptation, meaning that the state is not willing to recognize the historical injustices tribal communities have faced and how the state's action exacerbate the collective trauma carried by communities. One social scientist I spoke went as far as to say that the undermining of tribal autonomy and the refusal of the state to help tribes adapt as "cultural genocide."

This hard-hitting criticism and line of concern was not echoed as loudly by bureaucrats in the CAF. For example, Sarah, a member of the CAF who was working on parts of the relocation, said that individual members of the tribe and individual households on the island were not always on the same page as the tribal leadership. Similarly, Riley who also worked on the process said that the state could not "play favorites" and disregard the individual wishes of families when the tribe is not officially recognized by the federal government. This position discounts the fact that land loss and relocation are detrimental to the tribe's ability to make claims for federal recognition, as these processes contribute to the fragmentation of tribal settlements across the coast.

Alyce shared with me that she came to be disillusioned with the CPRA after being tapped by the agency to integrate her expertise in social justice into the Master Plan process. She explained that her vision focused too heavily on power and the politics of dispossession. She hoped the MP could signal more support for Indigenous struggles over land rights, but she said her coworkers at the agency "just didn't want to hear it" and that "they just didn't want to break

with the traditions of the organization." She went on to say that she felt they were coopting progressive language without making any real commitments to Indigenous people (on the Louisiana coast and elsewhere). An employee at CPRA who empathized with Alyce's frustration discussed with me why change is difficult at the agency. She said the Master Plan has to be passed by the state's Republican legislature. Because of this the organization's leadership is not going to depart from what they perceive to be politicly safe.

Community engagement and equity in the Master Plan

Efforts at engaging frontline communities and advancing climate equity have had mixed results at best. The Rockefeller Foundation sponsored a Global Transformation Roundtable with the University of New Orleans Center for Hazards Response and Assessment on climate adaptation that put together leaders from the CPRA with social scientists and members of frontline communities to discuss climate change (UNO 2019). The conversation also brought in an influential member of the climate justice movement, Colette Pichon Battle, to discuss how climate change disproportionately impacts communities of color. This convening also facilitated connections among the sectors. Indeed, Carrie, who previously worked with the Foundation for Louisiana, recalled the event as formative for her and part of why she felt that she could work for the CPRA:

> So there is nothing like having a conversation about systemic racism with Collette Pichon Battle, who is an incredible leader… she is force in the climate justice movement…and just seeing how open to the conversation CPRA [staff] was, how they were understanding how those who are frontline communities are actually the most vulnerable, and the systems and institutions we have created actually exacerbate the impacts that we are seeing today and will see in the future. And so at that point, I was saying, ok they [CPRA staff] are new to the Master Plan team, they are here for 2023, this is a different team.

The Foundation for Louisiana, where Carrie previously worked, is a key grant maker funding community-centric climate adaptation projects and community-based organizations. The organization is connected to many community-based organizations and runs a leadership and training program called Lead the Coast. This project uses a train-the-trainer model and is designed to provide community-based organizations with information needed to engage in civic action around coastal hazards and climate change. The program also focuses on environmental justice. For example, facilitators provide trainings on race, privilege, and power and coastal hazards, laying out who the major players are in coastal restoration and protection and how communities can interface with them.

Because Carrie was so integrated into the network of community-based organizations she jokingly said she was hired by the CPRA to be the "black sheep" of the organization. In contrast to her above excitement, she also recalled her first impression of how agency staff were running community meetings. She described how that experience shaped her desire to be part of the agency, knowing she could do things better:

> I will never forget it as long as I live. It was in a gym. It was pretty hot out, it was sticky, it was muggy, it was the first opportunity for folks to really see the data from the coastal Master Plan…so people were seeing the information for the first time. It was mostly folks from tribal nations who attended just simply because of where it was [held] at. And I left that meeting and started crying because, just, the almost overwhelming amount of despair from seeing individuals see those maps, and it was not being explained to them. People were figuring it out. They were saying, "oh wow, where I live is not going to be here at a certain period of time." But it took people having to figure that out. And I thought that at that point in time, and I don't know if the CPRA team at that time even realized that was a dis-service to people. You know, and I am not sure how that decision might have been thought about, or how it was made one way or another, just for the sheer fact that this Master Plan has to pass unanimously through the state legislature. And our legislature is currently not the most progressive. It is highly conservative, majority Republican, and it has been that way for a long time. So, at that point in time, you know, I really was, could understand why the state agency was having

> difficulty trying to message that, and then I thought that we could do better as a state.

In this statement, Carrie is describing an acute sense of disappoint and sadness because the CPRA had failed to communicate with sensitivity that this community and their homes were projected to be wiped off the map in fifty years, but she also talks about understanding the position the CPRA is in politically.

At CPRA, Carrie worked on establishing Community Engagement Work (CEW) groups that were designed to promote more open conversations between frontline communities and the CPRA. She said the goal of these conversations was to make the MP more accessible and useful for communities and to let community members "speak truth to power" and critique the Master Plan. These community groups were carefully selected so that they represented voices that have traditionally not been invited to MP meetings, including housing and environmental justice organizers and tribal leaders. When discussing the CEW, Carrie's statements indicated that she was proud of some members of the agency and her colleagues. She said they were doing "hard" work in opening themselves up to sharp criticisms coming from communities and in thinking about how to expand the interpretation of the agency's mission. She explained that when coming up with the CEW concept her and another colleague were asking themselves how to push the CPRA, especially around environmental justice, saying:

> [We were asking ourselves] how can we get some of these really dope folks who do organizing work regionally to get in on these conversations and start pushing the envelope on what the CPRA does, what we do not do, what are the things that we are willing to say politically. And so we started this Community Engagement Work Group that is made of folks who, they range from organizers against the petrochemical industry, because we want to make sure that we are bringing that thread in, because as much as our state relies on oil and gas and has an extractive economy, we also have to recognize that, oil and gas is the largest land owner in Louisiana, and we also know people are suffering from living with oil and gas facilities. What we see with the Tallgrass plant that they are trying to put in or the

> terminal in Plaquemines parish, that is the intersection health, coastal, and climate challenges in mostly communities of color.

Carrie noted that she strategically thought about when to push coworkers using what she called "teachable" moments. She said as a government employee she is constantly reflecting on how to transform the systems in which she is embedded because they have been used in the past to oppress people. She discussed how she used the organization's dress code to try and illustrate this point to others. She recalled a story about how a female employee received a warning about violating the dress code after taking off her blazer off on a hot day (having a tank top on underneath it). Carrie said that she had to explain to colleagues the connection of this incident to gender discrimination and the policing of women's bodies in the workplace, telling leadership that although the dress code is technically a state policy, the organization can choose whether to enforce this rule that disproportionately targets women. As consequence, leadership agreed that the organization would not actively enforce the dress code policy.

Although Carrie felt as though she made progress, she also described pushback she received. She wagered that pushback stemmed from the fact that co-workers were not trained in the humanities and social sciences. She said employees see themselves as primarily scientists working on an "objective" plan, an identity and position that suppresses alternative visions of what the Master Plan or the agency could be. She described criticism she received for getting overly involved with issues outside of the scope of the Master Plan; her supervisor said to her, "I hired you to be a scientist, now be science-y." This is what scholars call "boundary work" and is used to draw distinctions around what type of activity is regarded as a worthwhile use of time and what type of expertise is regarded as valid. Environmental justice scholars note that scientists and engineers use narratives similar to this to frame justice as beyond their responsibility (Harrison 2019; Ottinger 2013).

Some noted the hiring and presence of social scientists and particular individuals like Carrie as evidence of progress in the CAF. While my data show that individuals do contribute to reform and to introducing counter-hegemonic discourses into their organizations, my data also show that individuals are limited in what they can accomplish. While I was in the field, I learned that individuals left their organizations if they were not satisfied with the amount of change they could make. Additionally, some of the social scientists people were referring to were not actually trained as social scientists and have since left their organizations to pursue other career options. Krista, who was formerly with the CPRA, and was trained as a landscape architect, told me there was little chance for anyone outside of engineering and coastal science to advance in the agency. Therefore, it is unclear as to whether it is a priority to integrate social science perspectives into the agency.

I did hear people close to the Master Plan express desire to integrate equity into its technical modeling processes. In an interview Ashely said to me, "we could do better" on equity and then quickly corrected herself, saying "we can and will do better." She explained to me that her organization is working at the federal level to address the U.S. Army Corp of Engineers' decision making processes, which rely on cost benefit analysis to plan where to place flood protection infrastructure. Many people I spoke to, like Ashley, were aware that cost effectiveness measures disadvantage low-income communities. This is because effectiveness is measured by the estimated monetary amount of flood damage saved from projects. Even if lower-income areas are more at risk, the savings from protecting them may not be as large as the savings from protecting more affluent areas. Ashley and employees of the CPRA said that they were exploring the use of different economic indicators to make their own modeling processes more equitable. Miles, who is a modeler and works on the MP, described to me his organization's desire to do so,

but he also added that they were constrained by the federal government. Acknowledging this was a very "thorny" issue, he then said:

> You still have to show cost benefit in the grand scheme of things. Some of it is—once you are out of the Master Plan world, and into other worlds, like the Army Corps, they can't look at anything other than cost benefit analysis.

Miles is pointing out that the CPRA is limited in what it can do to address equity when it comes to flood protection because the ACOE controls this process. Cost-effectiveness measures are deeply entrenched in institutions like the ACOE, which is also well-known for its rigid chain of command (Barry 1997).

While it does represent an important step, tweaking numerical models does not present a challenge to the technocratic approach in the first place. For instance, when it comes to levee-building, even if a lower-income community was included within a new levee system, this is not a panacea for the community and can have unintended consequences. Levees often fail, are expensive to maintain, exacerbate flood risk, and spur development (which is also linked to gentrification) (Burton and Cutter 2008; Hutton et al. 2017; Freudenburg et al. 2009; Mileti 1999; Radonic et al. 2020; White et al. 2001). I saw evidence that coastal communities are gentrifying, as some coastal villages are being redeveloped into luxury vacation housing, traditionally called "fishing camps," for affluent whites who come to the coast on weekends and holidays.

Community-based organizations and frontline community concerns

Nonprofit employees described to me how they work in coalition to voice concerns to the CPRA. The Southeast Louisiana Voices of Impacted Communities and Environments (SELA Voice) coalition is made up community-based organizations representing tribal groups,

Vietnamese and other non-English speaking fishing communities, the Lower Ninth Ward, and other communities at risk from land loss. Healthy Gulf, the Coalition to Restore Coastal Louisiana (CRCL), and a New Orleans based philanthropic organization are also part of the coalition. The group describes its makeup and vision as such:

> Southeast Louisiana Voices of Impacted Communities and Environments (VOICE) is a coalition of community-based and environmental organizations convened by the Greater New Orleans Foundation, which is working with the most vulnerable coastal communities in Southeast Louisiana to provide a collective voice on coastal issues that impact their lives. As independent organizations, the members of Southeast Louisiana VOICE are well versed in their specific communities' concerns, knowledge, and strengths. This coalition brings members' expertise together to address issues of coastal restoration, protection, and adaptation. Our vision is that coastal communities are actively engaged in decisions on coastal issues that impact their lives and achieve equitable and effective solutions that strengthen their communities.

In 2017 and 2019, the group wrote comment letters to the CPRA and met with top administrators. The 2017 letter called for improvements to the Master Planning process in several categories, including funding, sediment diversions, and public comment. The 2019 comment letter conveyed a less forceful tone, and the requests made in that letter were also scaled back. For example, in 2017 the coalition asked that the state increase the amount of funding for the state nonstructural program and asked for the state to prioritize vulnerable communities for funds. Dan, who is Vietnamese American, and an employee of a community-based organization in the coalition, told me that the group was no longer pushing to expand the nonstructural program since the CPRA explained to them that they had no funding for it. Dan also expressed acceptance that MP projects, like sediment diversions, are going to happen. Although there is concern in his community about the projects, he also said he has come to understand the necessity of the projects. He said:

> We are resigned to fact that diversions will happen. They are needed, some of CPRA's projects have been shown to work, so we just focus on connecting people with information.

CPRA employees that I spoke to saw themselves as helping the communities represented in the coalition. For example, Corrinne from the CPRA told me that they see themselves as "buying time" for communities who need to figure out how to relocate. Others at the state level described their role as one of information provider, that they were facilitating community decision making by laying out facts about what the future will look like and how projects may affect the landscape. This sentiment was echoed by one community member, Bobby, who is part of SELA VOICE. He is a non-profit director and described his relationship with the state as positive. He said that the state's mapping and visualization products are useful for educational purposes and for illustrating what will happen to the coast in the future, something that could increase community "resilience" in Bobby's words. He accepted that his community cannot stay where it is forever, and he grappled with this poignantly saying:

> The reality of our situation here is that honestly we probably have about two more generations of people that can live in the coastal areas…and that is really heartbreaking to come to terms with that, and there are some people who have and some have not and won't… But I think more and more people understand that we have gone past the turning point, past the place where we can fix it. So, at this point our only saving grace is to build resiliency…So and when I say this our one shot at fixing this problem, we are not, we are not fixing it. It is about living here as successfully as we can for as long as we can, and embracing the fact that will not be forever, and there is something beautiful about that. It's like the difference between getting live flowers and plastic flowers, for your birthday or Valentine's or somethin'. You sort of treasure those flowers and how beautiful and fragile and delicate they are, where the plastic flowers might go in a box and collect dust somewhere and end up at a garage sale. But, I think that, coming to that mindset of cherish it because it is beautiful, and will go away, and celebrate that.

While some representatives of the coalition I spoke to signaled more positive relationships with the state, others expressed more cynicism and expressed resolve that their community members would have to take it upon themselves to figure out how to survive with changing environmental and social conditions. They said they have no faith that the "state" (referring not just to CRPA, but state and federal elected officials) will help them to adapt or

become resilient to the compounding hazards and economic hardships their communities face. For instance, Patricia, a Black woman who runs a community non-profit, said she sees the state and the federal government as embodying a "culture of no" and as being indifferent towards Black communities. Curtis, a Black man who directs a New Orleans-based non-profit, told me that community concerns are fundamentally about livelihoods and the lack of investment that "leaves communities to die." He said that the state is not willing to engage in these issues and that politicians only care about coastal projects that are beneficial to them. His remarks to me conveyed concern over a social phenomenon happening that is not often emphasized by government employees. That is, even as new coastal protection and restoration projects are built, communities are still eroding as younger generations leave to find employment and buy homes elsewhere. Community life erodes as schools, churches, grocery stores, post offices, and other businesses close. The populations that remain in place are older, less mobile, and have fewer financial means for relocating. In this way, communities are "being stripped dry," as Curtis said.

While it may be true that some community partners are more satisfied with the level of engagement they have with the CPRA, there is still no centralized government organization or funding source providing communities with the resources needed to adapt to environmental changes or resettle. Furthermore, narratives that position the state's role as an apolitical creator of knowledge reinforces the idea that there can be a strict division between science, advocacy and politics, a notion that is prevalent in scientific management agencies (Eyal 2019). In other words, it is the scientists' job to produce information, but once that information is produced, it enters the realm of politics, which is incompatible with science. This artificial division upholds the notion that it is not a scientific agency's place to manage for social justice by prioritizing its effort around frontline communities. This reinforces the idea that these communities are simply

one set of stakeholders among many and undermines social justice as a legitimate way to carry out policy. This also erases power differentials between vulnerable communities and other stakeholders such as landowners and energy companies.

Sediment diversions and fisherfolks

Because of the SELA Voice coalition, employees from CRCL—who are also a part of the Walton-funded pro-diversion group, Restore the Mississippi River Delta (MRD)—are connected to community organizations, including those that serve subsistence and commercial fisherfolk. Although the MRD is fervently pro-diversion, members of CRCL engage in efforts to help fishers adapt to environmental changes in estuaries, including anticipated changes caused from the operation of sediment diversions. For instance, in 2017 CRCL released a report detailing how shrimpers would need assistance in acquiring fuel and new gear to adapt. These would be needed for bringing in the same amount of money for their catches if they are pushed to another location due to diversions (CRCL 2017).

Because organizations in the Coastal Action Field are adamant about building sediment diversions, the report's authors concluded that their recommendations were sidelined. They expressed frustration that this work to ensure equitable adaptation is framed as outside of their organization's mission, or worse, is framed as detracting from the larger goals of their organizations. For instance, Landon thought that more could be done to ensure diversions coexist with fishing communities. Landon, however, said he often felt pushback from co-workers who see these efforts as possibly slowing progress on building sediment diversions. He mentioned to me that his ability to keep focus on fisheries was something that he was proud of, but that he must engage in this strategically, saying:

> Being a pain in the ass sometimes is what I am the most proud of. Because it is, at the end of the day, it most certainly doesn't get a diversion built any quicker for me to consistently be asking my colleagues, well, how are fishers going to adapt? How is this going to negatively impact people? Why are we not out talking to these communities and trying to prepare them? And so, spending time on that is time taken away from trying to just build support and drive diversions as fast as possible. You know, ultimately, it should be thought of, and the way that I approach it is, regardless of what happens there is going to be lawsuits and challenges, and things like that, of people that are impacted. But, whatever work we can do pro-actively to try to set those industries, and those individuals, on a path for operating with the diversions, for their business to adapt and transition to what the future conditions are going to be. That is logically going to lessen adversity and negative impacts that could potentially ultimately tie-up the diversions in litigation and cause the state to not be able to operate these projects. And so that has kind of been how I sell it internally, at the end of the day.

He went on to tell me: "I jokingly—but not jokingly—say that on any given day if I am not pissing someone off at work that I am not doing my job [laughs]." I witnessed a moment in an expert panel on sediment diversions that demonstrated how concerns about the diversions were also subtly deflected. In this meeting, when questions were raised about the diversions and how the state would be in communication with fishers, leaders of the panel redirected the conversation and instead of addressing the points said that everyone needed to "keep their eye on the prize" because the diversions are the "ultimate goals here."

Mary also lamented that she felt pressure to act quickly, without reflecting on the ways in which her organization's actions might be reproducing inequalities. She said that she thought the whole environmental community was "missing the boat" on integrating environmental justice within restoration because there is so much urgency around taking action (in the form of building large-scale projects). Although she was concerned that urgency overtook justice, she also still supported the sediment diversions, reiterating that they do the most good for the largest number of people. Robert, a professional from a restoration non-profit (who since has left this work) had concerns for how the discourse of resiliency could be used by the state to ignore community

concerns about building diversions. Robert felt frustration towards his organization because he felt like it did not encourage people to think about the social implications or externalities of building diversions. In an interview he said this in a distressed tone:

> I often get the sense that when push comes to shove, a lot of those people are going to be negatively impacted by sediment diversions, and when that concern gets voiced [in this organization], it is just sort of dismissed, like I don't want to think about that because I am not paid to think about that, and I am paid to get a sediment diversion built, so I am not… why would I think about that?

He continued by saying that he is not successful in voicing his concerns to colleagues, and that he sees their remarks as hypocritical. This is because many of his colleagues live in New Orleans, inside the levee system, and stand to benefit from sediment diversions that will buffer the city from storm surge.

> A lot of the times in my office, when this stuff comes up, I try to be like, you have to look at this in a way that is [empathetic]; this is bad for these people, yeah long term they are resilient, and they have figured stuff out before, but people are scared, and the state is going to build a diversion. I don't see any chance that it doesn't get built, whether it is blown up is a different story. But it is going to happen. And so, to me, there is just a lot of derision towards people that are opposed to it. [My co-workers] will say "oh they are anti-science, or "they are in it for themselves," but I also, sort of want to be like, well you are in it for yourself too in a way. This [diversion] happens to align with your values. There is definitely a class element to it, because those who live within New Orleans, within the levee system have a huge interest in maintaining the environment outside of New Orleans, but they wouldn't really appreciate the same thing being done to them.

Robert further explained the complicated dynamics around the sediment diversions. He noted that the white fishers who are hostile to the diversions (and threaten to blow them up, as he alluded to) traffic in racist conspiracy theories. For this reason, they are easily dismissed. But that is just one sub-set of larger and diverse communities who rely on fishing for their livelihoods. Robert noted that fishers have an important point to make—the state of Louisiana has historically prioritized other industries at the expense of the fishing industry and fishers. The state's apathy towards fishers has been particularly detrimental to Black, Vietnamese, and

Cambodian fishing communities that already face various forms of discrimination (Kang 2020; Lewis and Ernstson 2019; Mock 2010; Tidwell 2003). The point here is that having conversations about complex social and political dynamics, or about one's own privileges, is avoided because it is framed as not in line with organizational priorities. Robert describes his coworkers as dismissing fishers as misinformed individuals, allowing them to avoid grappling with their valid concerns.

I heard striking notions regarding misinformation about diversions. In interviews it was common for diversion supporters to mention fishers as "misinformed" or not "educated" about the facts. A claim that individuals in the CAF make—and that local "grasstops" make—is that misinformation about the diversions is curated by powerful figures in the commercial oyster industry. For example, in a panel discussion on land loss sponsored by the MRD, a coastal resident and restoration advocate said that any controversy about the diversions is "propaganda." A few members of the CAF told me that misinformation is disseminated by a few individuals who are deeply invested in the commercial oyster industry, an industry that is already making plans to adapt to diversions. These are important claims about what entities back organized opposition to diversions and what their intentions are, but these types of narratives nevertheless erase the valid concerns of many fisherfolk and frontline communities that diversions will be the death knell for their way of life.

Austin, who also worked for a non-profit described to me in an interview his hopes that his organization would work harder to support fishers who may be impacted negatively by diversions and support climate justice initiatives like the Green New Deal. However, Austin also conveyed a sense of burnout. He said he was not someone leaders in his organization were going to listen to. He sighed as he said that he feels his conscience is clear because he did what he

could. Some individuals, like Austin, admitted that their organizations took part in greenwashing campaigns and felt that community outreach was simply "inserting" oneself in a community to find individuals who would speak in favor of diversion projects. This is significant because it shows how individuals, who are ready to work on equity and climate justice, are dissuaded by their organizations and abandon this critical work because it is frustrating to get nowhere. This is also significant because conservative or elite foundations, like the Walton Family Foundation that funds coastal restoration work, are key sources of power in society (Bartley 2007; Faber and Auriffeille 2005), but few studies highlight how people working within these institutions perceive them or talk about them.

Conclusion

In this chapter I build on previous chapters by illuminating how individuals in the Coastal Action Field push back on the state's hegemonic approach to addressing land loss and seek to address shortcomings that have implications for environmental justice. The first shortcoming is that action in the CAF is disconnected from climate change mitigation and industrial regulation. The Master Plan does not call for reducing greenhouse gas emissions, restricting industrial development, or compelling oil and gas companies to compensate for past damages done to the coast. In response to this criticism, the state is launching a Climate Task Force and actors in the CAF are shifting discourse about industry responsibility. However, these steps do not guarantee greenhouse gas emissions will be significantly curbed, nor do they mandate that compensation be directed toward frontline communities that are the most negatively affected by extractive industries and industrial activities.

The second shortcoming is that the Master Plan does not adequately engage frontline communities, and that it is does not consider equity in terms of prioritizing projects to meet

frontline community needs. This works against environmental justice because it means communities most negatively affected by land loss, and most historically marginalized and subjected to coastal hazards, may also be further harmed by the Master Plan. In response to this criticism, people in the CAF are trying to expand participation in coastal planning efforts, integrate TEK into the Master Plan, integrate dialogue on racial equity and land rights into the CAF, and address concerns of frontline communities, such as concerns coming from fisherfolk. However, I show evidence for how individuals doing this work are undermined in their organizations and face resistance from colleagues. I also show that these efforts still fall short in challenging coastal Louisiana's dominant racial order, one that has been shaped by white supremacy and one in which many ethnic and racial groups are erased.

In sum, despite discussion and implementation of some reforms, the CAF still falls short in prioritizing environmental justice. This is because reforms take place in an institutional context in which scientific and political legitimacy and acting quickly are the most important priorities. Accordingly, reforms fall short in challenging Louisiana's political-economic systems and fall short in altering the day-to-day work of organizations in the CAF. These findings align with those of scholars studying boundary work and social constructions of legitimacy in organizations and how these contribute to inequality (Espland 1998; Harrison 2019; Osnowitz and Henson 2016; Ottinger 2013; Schwable et al. 2000). I add to this work by showing how appeals to legitimacy and existing reforms can act as double-edge sword. For instance, on the one hand, organizations in the CAF worried about their reputation in the eyes of federal funders, and the broader public, and this motivated them to examine contradictions between their rhetoric and their actions. Members of the CAF want to signal they can be trusted to handle billions of federal dollars by ensuring that these funds are put to productive use. As explained in previous

chapters, people in the field distinguish themselves from others by referring to how action-oriented they are. The emphasis on action translates into concerns about moving Master Plan projects forward, maintaining approval by politicians, and maintaining scientific credibility. On the other hand, legitimacy for some organizations in the CAF also means not being too radical in their prescriptions so that Louisiana's conservative legislature continues to approve the Master Plan and other projects requiring legislative support. Individuals in the CAF also interpret frontline community concerns as political and outside of the appropriate scope of the Master Plan. Reforms operate symbolically, as milestones to point to without the CAF having to change way it does business on a larger scale.

CHAPTER 7

CONCLUSION

Simply put, Louisiana's response to land loss may harm the very people it is intended to help: Native American, Black, Southeast Asian, Cajun, and Hispanic people who live in coastal bayous and make their living from coastal resources, people whose identities and livelihoods are bound up in coastal places and whose communities and culture are threatened by land loss and climate change. The state's response also benefits political-economic elites that are complicit in the destruction of wetlands and in the creation of ecological crisis. This dissertation explains how this came to be by describing how the state's Master Plan (MP) became the central project of an organizational field (the Coastal Action Field) dedicated to addressing coastal land loss and explaining how this project is supported among actors with unequal levels of power. In this chapter I discuss how the theoretical framework of this dissertation strengthens the analysis of climate adaptation injustice. I also highlight additional contributions of this dissertation and discuss the policy relevance of my findings. I list several practical recommendations for achieving more just responses to land loss and climate change. Finally, I discuss future research directions and provide concluding remarks.

Neo-Gramscian Lens for Climate Change Adaptation Injustice

Theoretically, this dissertation is unique in that it draws from neo-Gramscian theories of organizational fields (Ciplet et al. 2015; Levy and Egan 2003; Levy and Scully 2007) to explain Louisiana's climate adaptation injustices. This framework is useful for understanding climate adaption injustice because it uses a multidimensional view of power. Power is multidimensional in this framework because it can be used to coerce or force actors to comply, and ideology and

discourse can be used to render this as natural, not an issue of power, and therefore not contestable (Gaventa 2006; Gramsci 1971; Lukes 2005; Reed 2013; Yang 2020). In the following section, I situate this framework within existing sociological literature on climate change and environmental justice.

Climate change and environmental justice

Sociological perspectives on climate change and justice cover a number of topics. For example, scholars have studied how climate disruptions disproportionately affect developing nations that are less responsible for climate emissions (Ciplet et al. 2015; Pellow and Brehm 2013). Scholars have explained how capitalist systems of production contribute to dangerous emissions and have revealed how elites thwart action on climate justice by manufacturing doubt regarding climate science (Brulle 2014; Downey 2015; Downey and Strife 2010; Farrell 2016; Foster 2020; Grant et al. 2020; McCright and Dunlap 2003; 2015; McKie 2019; O'Hara 2009; Rosa et al. 2015). These explanations are rooted in ecological Marxism, Treadmill of Production Theory, Ecological Unequal Exchange, organizational-based perspectives, and power elite theories. Additionally, scholars have analyzed contemporary climate justice movements (Ciplet and Harrison 2020; Harlan et al. 2015; Mohai et al. 2009), and finally, there is a growing interdisciplinary literature that looks specifically at how social units are designing and implementing plans to address climate change and how this relates to environmental justice (Anguelouski et al. 2016; Carmin et al. 2015; Jujonas et al. 2020; Routledge et al. 2018; Sovacool 2013; Schlosberg 2012; Shi et al. 2016; Yang and Juhola 2021).

The studies listed above are immensely important for understanding climate change and environmental justice, but the focus has been primarily on describing the scope and severity of inequalities, explaining the origins of inequality with reference to macro-level forces or political-

economic structures, and critically assessing movement progress. Explaining injustice through a neo-Gramscian lens complements these directions and addresses the need for research that "sheds much light on the profound potential for normalization of the climate threat across society" and the organization of climate inaction (Norgaard 2018). There is potential for sociological inquiry to advance understanding of how people with relatively more power in society reproduce inequality in commonplace ways that appear uneventful but are insidious mechanisms by which the social order to reproduced (Harrison 2019). Similarly, studying individuals in an organizational field bridges macro-level social forces with micro-level interactions and communications, contributing to what Weber and Messias call the "mechanisms" of social inequality formation (2012).

A neo-Gramscian framework illuminates mechanisms of injustice by focusing on hegemony, referring to commonsense and practical discourses that frame the narrow interests of elites as universal, therefore supporting the status quo (Fairclough 1995; Hopf 2013; Salamini 1981; Sevilla-Buitrago 2017). Hegemonic power, as produced through normalizing narratives, contributes to enduring environmental inequalities by bolstering the collective denial of the fact of climate change, and the collective denial of the wellbeing, rights, and dignity of the people most negatively affected by climate disruptions and adaptation actions (Haluza-Delay 2012; Norgaard 2011). This dissertation furthers these critical lines of inquiry by using a neo-Gramscian framework and interpretive methods to reveal key mechanisms producing and sustaining climate adaptation injustices. In the case of Louisiana, a neo-Gramscian lens emphasizes the role of hegemony in not only naturalizing power differentials and ecological degradation, but also in limiting the ability of actors to imagine alternative forms of social and

ecological relations, particularly those that center just and sustainable relations between communities and coastal ecosystems.

A critical point I make with this dissertation is that ordinary organizational discourses function ideologically to frame the sacrifice of the few, and already marginalized, as absolutely necessary for the good of the many. This hegemonic framing in costal Louisiana aligns with environment sociologist David Pellow's concept of "disposability," referring to how dominant discourses in society are undergirded by the notion that the wellbeing and human rights of marginalized frontline communities are not connected to those of the larger society (Pellow 2017). I reveal how discourses rationalizing inequalities align with utilitarian reasoning—reasoning that has long dominated U.S. environmental politics (Espland 1998; Harrison 2011; Vig and Kraft 2013).

A neo-Gramscian framework also draws attention to discourses and practices that define the parameters of public participation in environmental decision making and garner the consent of those with less power (Ciplet et al. 2015; Levy and Egan 2003; Perkins 2011). This dissertation illuminates how in a petro-dominated social order, coastal communities, advocates, activists, and other organizational actors have limited options and power to change how land loss and climate change are addressed. People do strategically push back on this status quo; however, people also accept entrenched power relations and naturalize the status quo because, above all, they want to feel as though they are moving forward with their work of avoiding climate catastrophe. This dissertation shows that maintaining the status quo is not the only choice for actors, but it is often regarded as the only path forward, and it is a choice that necessitates framing frontline communities as if they are disposable. In the following sections I expand on how the findings of this dissertation contribute to knowledge on climate adaption injustices.

Dissertation findings

In Chapter 4, I showed how powerful players (political-economic elites, foundations, big environmental NGOs) were able to shape discourse around land loss and influence the nature of community outreach concerning land loss. I argued that these changes, in conjunction with changing material conditions and other organizational supports, gave the Coastal Action Field (CAF) the ability to frame the Master Plan (MP) as a scientifically legitimate and socially supported solution to land loss that is simultaneously pragmatic and aspirational. This explains how the MP remains legitimate across a wide array of stakeholders, including frontline coastal communities that have much less power to shape decision making and planning in the CAF. I illustrated how foundations are creating a new "astroturfing" (Mix and Waldo 2015) strategy by finding individuals to serve as "grasstops." I showed in this dissertation that a foundation-led campaign, the MRD, taps individuals who have substantial social and political capital in their community to become champions of controversial restoration projects. The Walton Family Foundation created the MRD campaign, a campaign that relies on organizations that are already deeply embedded in communities. The MRD enlists individuals to become champions of diversion projects, even though these projects are not sufficient to protect all coastal communities and may exacerbate harm to people in the champions' own communities. I argued in this dissertation that this type of engagement is a mechanism for dominant members of the CAF to gain the consent of coastal communities who are going to be negatively affected by land loss. It does this by providing community members with a limited avenue for advocacy that does not challenge the MP.

Hegemony is not just ideology; the concept conveys how power is exerted through the alignment of organizational, political-economic, and discursive structures at particular historical

junctures (Igoe et al. 2010; Levy and Egan 2003; Levy and Scully). In this dissertation, I showed that these all matter in terms of shaping the social construction of strategic action. For instance, it was Hurricane Katrina that gave a field of coastal actors the opportunity to successfully lobby for a federal revenue sharing deal for offshore drilling. This deal resulted in the GOMESA funding mechanism, a key contradiction of Louisiana's response that makes ecosystem restoration dependent upon energy production. I then showed in Chapter 5 that this material backdrop—in conjunction with worsening ecological conditions and cultural norms about separating science from politics— compels people to take for granted how restoration projects are funded and consent to the notion that extractive industries are an indelible fixture of Louisiana's environment.

In Chapter 5, I also illustrated how discourses used by engineers, restoration non-profit employees, scientists, and state agency employees naturalize the influence of the oil and gas industry. I showed how some supporters of the MP recognize social vulnerabilities, but I showed that they still discursively rationalize the potential injustices of the Master Plan, including that it negatively affects communities of color and working class communities who have been historically marginalized. They did this by asserting the necessity and superiority of the MP in different ways; they use appeals to the innovative nature of the MP, its moral superiority (in terms of the MP being a courageous solution that does not waste "God-given" gifts), and its status as the absolute only option for addressing land loss to dismiss critiques. In Chapter 5, I gave examples of how supporters of the MP reason that it is not economically or socially justifiable to protect frontline communities and connected these narratives to utilitarian environmental management perspectives. A utilitarian perspective stresses maximizing social

benefits and has been used to justify reliance on cost-benefit analyses in a number of policy contexts (Harrison 2011; Indira 1992; Tanenbaum 1995).

Chapter 6 highlighted how state agency employees, restoration non-profit employees, and members of community-based organizations challenge dominant discourses in the CAF and seek to reform the state's approach to addressing land loss. I described shifting political stances and reforms that have been implemented, but I also presented evidence for how these reforms fall short in prioritizing environmental justice. For instance, I heard people talk about their long-term and short-term goals when it came to organizing; their ultimate goal might be to move the state closer to endorsing a Green New Deal, but the shorter-term goals were much narrower. However, I also noticed that the narrow accomplishments they lauded failed to challenge the dominance of current political-economic systems. I saw this with the state's Climate Task Force, an entity which represents both a short-term goal of progressive organizers, and a neoliberal approach to climate, upholding the necessity of "business friendly" mechanisms of reducing carbon emissions.

By using a neo-Gramscian lens, this dissertation also focuses attention to how individuals describe their work in strategic terms and how they challenge and reproduce hegemonic practices when confronted with questions about power and politics. In Chapter 6, I showed that people in a coalition funded by the Walton Family Foundation acknowledge how the coalition obscures the oil and gas industry's role in land loss and climate change. People I spoke to describe this choice as strategic, but they also questioned the degree to which that strategy was necessary or useful any longer, as an employee in the coalition told me, "I think we are protecting something that doesn't really need to be protected anymore." This person was expressing the notion that the politics of climate change had shifted far enough that her own organization no longer needed to

align completely with the oil and gas industry to safeguard her organization's reputation and ability to get funding. However, in this section I described the limits to opposition against industry; I showed that the coalition seeks to aggressively safeguard river diversions from being negatively impacted by industrial development, but members of the coalition do not regard the unequal social consequences of industrial development as part of their mission. I also highlighted the narratives of individuals with less power in this coalition. These narratives conveyed that their colleagues dismiss the needs of frontline communities. I also discussed how issues of racial inequality remain unrecognized by the CAF and how particular communities, including Southeast Asian, Hispanic, and Latinx communities are erased from the constructions of the coast's racial and ethnic makeup.

Overall, this dissertation illuminates how the needs of the most marginalized are evaluated within a constraining framework for action, one that pits their needs against those of a socially-constructed greater good. This is particularly important to this current social moment, as action to address climate change (such as quickly transitioning to low-carbon energy sources) is increasingly regarded as urgent and necessary and because these measures disproportionately burden some segments of society while benefitting others (McCauley et al. 2019). I join Pellow in arguing that a just framework for climate adaptation would recognize the indispensability of frontline communities. This is particularly relevant in the case of coastal Louisiana. Here, community leaders assert that they have a unique perspective and unique set of skills that could aid in transitions to sustainable practices. As the tribal leader Donna reminded me in our interview:

> There are other ways [to restore the coast] based on our own traditional knowledge that could actually work and end up having little to no negative impact whatsoever. And that's definitely because of the way that we function as a people, you bring harm to none.

Donna is saying that the guiding principle of climate adaption should be respect for all and relates this to her people's traditional philosophy. This perspective is similar to Indigenous scholars' articulation of climate adaptation justice (Carroll 2015; Gilio-Whitaker 2019; Whyte 2013). Their work emphasizes how the philosophy of tribal nations recognizes the humanity and connectedness of humans with each other and the natural world, while advocating for restoring the land rights of Indigenous people. Black climate justice activist Colette Pichon Battle has also advocated for societies to recognize frontline communities' struggles for survival. Pichon Battle is a member of a frontline coastal community who implores policy makers and the wider public to view the survival of her people as necessary for achieving a more sustainable and just climate future for everyone. In a TED talk she communicated this by stating, "the only way you are going to survive is for us to figure out how to reach a shared liberation together."[13] In all, this dissertation connects environmental injustices to social constructions that devalue whole communities, communities eager to find collective climate solutions.

Additional Contributions to Literature

Risk framing in organizations and institutional theory

My work is in conversation with organizational and institutional scholars who contend that technocratic-managerial discourses drive risk expansion (Clarke 1989;1999; Gephart 2004; Hardy and Maguire 2016; Vaughan 1999). The idea is that these hegemonic risk framings use technical and expert language to quantify uncertainties that cannot be quantified and obscure power relations and social vulnerabilities contributing to risk. My findings mesh with these assertations but also add to them. I found that the framings people used to support the Master

[13] See https://www.ted.com/speakers/colette_pichon_battle.

Plan in practice were nuanced and recognized uncertainty, and I found that people drew on cultural values and moral considerations when formulating their rationalizations of the state's approach to addressing land loss. Thus, the MP may be technocratic, but the way people justify it is not devoid of values.

This case also deviates from institutional theories of slow-moving disasters in important ways. Scholars studying slow-moving disasters argue that they defy institutionalized definitions of what a disaster is, causing confusion over what organizations have the authority and responsibility to act. Additionally, the lack of routine protocols to address slow-moving disasters results in institutional inertia and inaction (Beamish 2000; 2002; Brulle and Norgaard 2019). This dissertation highlights how action— in itself— is a value that organizational actors strive for and shows how action is socially constructed. This finding has implications for organizational theory about "coupling," and about the relationship between rhetoric, symbols, ceremony, and actual practices that constitute organizational work. In this case, action, defined as building engineered structures, was lauded in an organizational field, while action to avoid injustice was not.

This dissertation also discussed how some individuals are skeptical of reform in an organizational field, seeing it as a double-edge sword. They expressed concern that reforms may only function symbolically, but they also expressed hope that reforms could be strategic steppingstones to systemic change. This finding suggests that organizational coupling, decoupling, and recoupling are dependent upon a combination of factors within institutional settings and are dialogical processes. This echoes Wendy Espeland's (1998) argument that when symbols become politicized in an institutional environment, they threaten the status quo and can lead to recoupling.

Critiques of Louisiana's Master Plan

Critiques of the Master Plan state that the document is inherently political but is packaged in a discourse of scientific objectivity to obscure this fact (Colten 2019; Gotham 2016a; Nost 2019; Randolph 2018). I also found that the depictions of bureaucrats in critiques of Louisiana's response to land loss could be somewhat flat and even evoke contradictory images— either the architects of the Master Plan are technocrats who think about risk in a very limited way, or they are adept political operatives who use the Master Plan in order to advance elite agendas. My findings showed that people working in agencies, non-profits, and in research institutions do strongly identify as "objective" scientists and do not agree with the idea that the MP is political. Nonetheless, I argue there is a more nuanced way then to critique the Master Plan.

People I followed for this dissertation vehemently deny (and in some cases are extremely offended by) the idea that their work is "political." I witnessed a clear case of this during a lecture about Master Plan science. Here, a human geographer accused the CPRA of using certain metrics for sea-level rise as a response to political pressure. The scientist giving this lecture forcefully pushed back and cogently refuted the accusation with a great deal of evidence. I understood the point the geographer was getting at, but in this moment the exchange only reinforced for the audience that the MP is indeed "objective" and valid science. The point here is that the way politics manifests in the Master Plan should be thought of as acting *through* institutional actors, not *on* them, as Sandra Harding describes in her critique of scientific neutrality (Harding 1995). In this dissertation, politics acting through actors means that Master Plan science is not directly compromised because of political meddling, but that politics works through a number of institutions and through culture to limit the construction of what a "scientific" approach is and to construct problems as only having technical solutions.

This distinction is similar to what Diane Vaughan wrote about in her analysis of the Challenger disaster (Vaughan 1996). She made a nuanced argument that it was not nefarious decision-making that produced the risky decision to launch the space shuttle Challenger. What she did argue is that political-economic constraints, and a sense of urgency to launch, contributed to an organizational culture that normalized risk and allowed flawed decisions to be made by well-meaning engineers. This dissertation also shows the limits of scientific and technical enterprises when they are isolated from social and political contexts; however, the argument is not that people are corruptly biasing the Master Plan to serve elite interests.

Practical Recommendations and Policy Relevance

As I discussed in the opening chapter, there are ways to justly approach land loss and climate change adaptation. Researchers, practitioners, and community members in coastal Louisiana have already come up with plausible options and useful recommendations (Bethel et al. 2014; BTNEP 2019; Jessee 2020; Maldonado 2018; Peterson 2020). The rub is in implementing these solutions. My analysis argues that part of the problem is that cultural mechanisms frame these solutions as not compatible with objective science or not central to coastal restoration and protection. For this reason, the practical recommendations I provide are multi-faceted and are aimed at building a social infrastructure around climate adaptation justice to normalize justice as a main priority and worthwhile pursuit. These recommendations are not exhaustive but represent types of solutions that could move the state and federal government toward more equitable approaches to land loss. A main point is that many organizations are already doing this work but are in need of a better platform and more resources for their advocacy.

State government and agencies

First, the Master Plan should prioritize protecting the most physically vulnerable people and the people who are the most dependent upon coastal resources, and furthermore the state must give these communities more decision-making power and include them in project planning earlier on. To do this, the state could adopt a more participatory model of planning, using the Louisiana Strategic Adaptations for Future Environments process (LA-SAFE), the Science and Traditional Ecological Knowledge (Sci-TEK) process developed by Bethel and colleagues (2014), or the Barataria-Terrebonne National Estuary Program process as models. The state could explore the use of competency groups and social-return-on-investment methods, as opposed to benefit-cost analysis, to incorporate a wider range of community benefits (such as preservation of cultural heritage) into its decision-making processes (Hemmerling et al. 2020). The state could also reframe Master Plan priorities through the lens of cultural heritage and community survival, elevating the importance of projects that not only maintain land, but preserve the traditions, language, music, knowledge, art, and cuisine of coastal people.

State agencies should not only acknowledge injustices but move to actions that ameliorate them. One recommendation would be to reform policies pertaining to state tribal recognition, recognizing how standards for recognition are overly burdensome considering the context of continuous disasters experienced by tribal communities. Standards also do not recognize the complex racial identities that tribal citizens have and excludes whole tribal communities based on colonial notions of racial purity (Klopotek 2011). Another recommendation would be for agencies like the CPRA, and its advisory committees, to reform how they interface with the public, including making public meetings and hearings more accessible. The state should also enforce its executive order that mandates all state policies be

consistent with the Master Plan in the sense that the state should restrict industrial development or regulate existing industries that greatly contribute to carbon emissions. The state should explore all legal avenues, such as this executive order, for regulating development in the coastal zone, for compelling companies to remediate for past damages, and for preventing green gentrification.

The state will also need to recognize that while resettlement should be locally driven, a just and equitable resettlement will not happen if local communities are not equipped with resources they need. Thus, it is imperative that the state investigate ways to coordinate and pool resources for all communities, families, and individuals who desire to relocate or want to floodproof their homes. This may require the establishment of a central coordinating agency to assist in resettlement and in-situ adaptation. The state could work with researchers and advocates already doing work to evaluate legal and funding options for just resettlement and climate adaptation, such as the Tulane Institute on Water Resource Law and Policy. State and local governments should increase supports for hurricane evacuees and others displaced by severe weather and disaster, trends that will only increase in the coming decades. State agencies should also provide incentives for hiring social scientists, community advocates, and experts in environmental justice and environmental racism to run community-centric programs. It will be difficult for agency culture to change without bringing in more staff with diverse disciplinary perspectives and expertise in social problems and putting them in leadership positions. Finally, a recommendation is for state employees to work with community groups and organizations to strategize how best to elevate justice as a guiding principle in coastal work. The CPRA's Community Engagement Working Groups provides one place to start since the membership of

this group includes environmental justice and community advocates. The agency could also elevate these members to their Master Plan framework development team.

Non-governmental organizations

Non-profit and local philanthropic organizations have a role to play in support existing community-based organizations and advocacy organizations that connect communities to resources and host knowledge exchanges with other frontline communities across the U.S. (Maldonado 2018). These organizations could also fund more Sci-TEK exchanges, where scientists, engineers, and state employees visit communities and go out with local experts. Organizations in the MRD could conduct internal audits to map out how their operations and projects intersect with environmental justice and how their organizations can leverage funding and resources to ensure frontline communities are not negatively harmed by projects they support. Finally, environmental NGOs, foundations, and progressive political organizations should step up their funding of climate justice activities and invest in power building in the south. There are local and regional organizations doing climate justice work already, such as the Gulf Coast Center for Law and Policy, but their reach could be amplified if they received more steady sources of funding. Organizations like the ones in the SELA VOICE Coalition could benefit from more steady sources of financial support. Many of Louisiana's environmental injustices will not be resolved without sustained social movement activity.

Federal policy

This dissertation points to broad federal policies that contribute to climate adaption injustice. First, federal tribal recognition processes constrain tribal communities' adaptation abilities. Second, the federal review process for the U.S. Army Corps of Engineers flood

protection spending privileges affluent communities at the detriment of economically marginalized communities and communities of color (Jessee 2020; Maldonado 2018; Patterson 2021). Third, the federal government's approach to flood protection heavily emphases levees and built environment improvements. These are temporarily beneficial but also contribute to the long-term buildup of risk. The building of levees can still exacerbate longer term risk by spurring development, contributing to subsidence, and channeling flood waters (Baurick 2019b; Hutton et al. 2017; Miletti 1999; White et al. 2001).

Federal policy also determines flood insurance premiums and shapes how local communities respond to increased flood risk. This dissertation points to the need for flexible federal grants for mitigation and resettlement funding that could be acquired before disasters strike because communities have very limited options for selling their homes or for participating in a buyout program. There is increasing evidence that programs like the National Flood Insurance Program, and other disaster aid programs, must recognize racial disparities to avoid actively increasing wealth disparities between racial minorities and white Americans (Domingue and Emrich 2019; Howell and Elliott 2019; Paganini 2019). Because of this, a recommendation is for federal programs related to adaptation and disaster to actively prioritize communities of color that are historically marginalized and overburdened by hazards.

Finally, policy proposals like a Green New Deal would provide funding for equitable energy transitions and rein in the power of extractive industries. The Louisiana case demonstrates why this is essential. Narratives from individuals I interviewed and spoke to naturalize negative effects of extractive industries, but I did not witness rampant denial of the harms caused by industry. I did, however, witness strong perceptions that there are no viable alternatives for energy production. This dissertation shows that extractive and polluting

industries have a great deal of power, but also suggests that community leaders and organizations shift their stances on oil and gas companies and climate change—such as whether oil and gas companies should pay damages to coastal parishes or whether the state should implement carbon emissions reductions—when it is strategic to do so, and when that would be looked upon favorably by the federal government. Thus, my findings suggest that the Green New Deal may not be rejected outright in Louisiana if the circumstances are right.

Future Research Directions

Fruitful avenues for research expansion

This dissertation points to several avenues for future research. This project uncovered much rich data, but I did not systematically explore all themes that emerged during fieldwork and during data analysis. For instance, I was not able to completely explore all the unique ways in which different racial and ethnic communities may experience environmental injustice. Additionally, data often pointed to the use of highly gendered language and suggests there is enduring gender stratification in terms of who holds top positions of power in government, private, and civil sector organizations. I found that people in the Coastal Action Field (CAF) often used language that referred to important figures in coastal restoration as "guys" and "men," but I did not unpack all consequences for such renderings in relation to existing scholarship on gender and the environment. Limited data also provides evidence that the most vocal advocates and activists for frontline coastal communities are women, particularly women of color. For these reasons, future research on Louisiana land loss and climate action could add to scholarship on gendered environmental discourses, how environmental advocates push back on them, and how unique and intersectional identities and experiences shape strategies for climate adaption

justice (Bell 2013; Perkins 2021; Taylor 1997; Weber 2010). A neo-Gramscian framework is limited in terms of its attention to the intersection of gender and race; however, the idea that racial and gender-based oppression are hegemonic regimes have been put forth by scholars like Omi and Winant (2014) and Yang (2020). A deep analysis of how race, class, gender, and place shape environmental politics could also draw from intersectional and feminist theories of power and privilege (Ravera et al. 2016; Warren and Nisvan 1997; Weber 2010).

Future work could also articulate the relationship between disasters and climate adaption in the context of neoliberalism and contemporary racial politics. Disaster theorists propose that disasters present opportunities to elites, especially for conservative actors seeking to take advantage of disasters to push through conservative reforms (Klein 2007; Schuller and Maldonado 2016). The aftermath of disasters can also be thought of as creating neoliberal testbeds due to the rollout of market-based disaster recovery programs and the reliance on market-based rebuilding strategies (Adams 2013; Brand and Baxter 2020; Gotham and Greenburg 2008; Pais and Elliott 2008; Tierney 2015). The city of New Orleans after Hurricane Katrina is a case in hand: after the storm, politicians gutted the public school system and converted it to one run entirely through charter schools. Neoliberal reforms are also "colorblind" in the sense that they rearticulate structural racism and issues of power inequality as individual failings or as problems rooted in personal or economic factors (Bonilla-Silva 2013; Brand and Baxter 2020). For these reasons, colorblind ideologies mesh with neoliberal policies, since neoliberalism is undergirded by the assumption that the market is a fair and neutral space for improving social conditions (Omi and Winant 2014). Further research could also delve into processes of racialization among Louisiana's coastal communities and how these intersect with neoliberal climate adaptation.

The Louisiana case of land loss suggests that hazards and neoliberal contexts could contribute to a cycle of climate maladaptation that exacerbates racial disparities in exposure to risk. Disasters are opening federal lines of funding for mitigation and adaptation, but this funding is not enough to meet needs. As such, cities, towns, and other places are increasingly competing for funding to rebuild after disasters and mitigate future risks. This competition may spur more development in high-risk areas, such as in low-lying elevations and flood plains, because increased development may help local officials prove the cost-effectiveness of mitigation projects. My data does not speak to this directly, but local officials did speak about the benefits of having new industrial facilities in their jurisdictions, meaning they believed their jurisdiction is economically justifiable for the federal or state government to protect from extreme events and sea-level rise, and they are therefore more likely to get funding for flood protection projects. Future research could interrogate whether these conditions contribute to a new form of "environmental blackmail," where communities of color that are overburdened by industrial hazards consent to risky developments to better their chances of receiving limited funding for hazard mitigation and adaptation.

Future research could also explore how the Louisiana case may be similar and different than other cases in the U.S. and around the globe. Another important line of research is uncovering the conditions under which the interests of powerful players become fragmented. For instance, in the Louisiana case, powerful players like industry, politicians, and large environmental NGOs became strategically aligned over time. This alignment may be unique and rooted in Louisiana's unique relationship with industry and the environment. Further analysis could explore this and related hypotheses.

Finally, in the coming years there will be a great need for analyses of how compounding disasters both enable and constrain resistance to hegemonic discourses and practices and how this collides with progressive and radical social movements. As one interviewee said, "there is no status quo" in Louisiana, meaning that disasters constantly shake-up modes of coastal risk reduction. There is also no status quo in terms of how climate change and disasters will shape politics in Louisiana in the future. For example, from my correspondence with individuals in coastal Louisiana, I heard that Covid-19 had a constraining effect on community organizing; however, I also heard that the emergence of mutual aid networks in the wake of Covid-19 and protests against police brutality have led to new and social movement coalitions, consisting of anti-racist, abolitionist, anarchist, anti-capitalist, and LGBTQ+ activists. Future research could critically analyze such movements and their progress.

Concluding Remarks

I agree with my participants who said that many other places around the world will come to face challenges like the one Louisiana is facing. However, many places are already facing these challenges, and there are numerous case studies of already existing climate adaptation injustices. I hope that this dissertation directs increased attention to why adaption injustices continue to happen, even though more just approaches exist and despite the good intentions of many organizational actors. I concede this is a deep problem and that addressing power imbalances and trade-offs is an absolutely thorny endeavor. Nevertheless, there is one main practical takeaway from this work that will aid in a move towards just adaption. That is, when grappling with the climate crisis, we should reject narratives that devalue whole communities or that delink their wellbeing and human rights from that of the broader public.

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APPENDIX A
Interview guide

Interview guide for organizational actors involved in coastal land loss/ erosion.

1) Can you please tell me about your position and the work your organization does?
    a. What is the mission?
    b. What are the core values or principles of your organization?
2) What other organizations do you work with?
3) Can you tell me about how you or your organization came to know about and be involved in the issue of coastal land loss/erosion?
4) How you feel when you think about the problem of coastal land loss/erosion?
5) Can you describe what it would mean to restore and/or protect the coast?
6) What conditions (i.e. environmental, social, economic) threaten the coast?
7) How do you explain the problem of land loss/erosion to others?
    a. What factors are causing it or have caused it?
    b. How do we know this is happening?
    c. What could and should be done about it?
    d. Who are the main stakeholders involved in the problem?
    e. Do you view what is happening as a major crisis or disaster, why or why not?
    f. What are the major consequences of coastal land loss/erosion, and what are the consequences of restorative or protective measures?
8) What else should be done to protect coastal residents from environmental hazards?
9) What are the major barriers and challenges to restoration and protection work?
10) What are the major successes and/or failures of coastal restoration and protection work?

Interview guide for community members or non-institutional actors involved in coastal land loss.

1) Can you tell me a little bit yourself and your connection to the area? For instance, have you been a resident of _____ for awhile?
2) Are you a member of any organizations involved in coastal restoration and protection, or do you work with any organizations like this?
3) Can you tell me about how you came to know about and be involved in the issue of coastal land loss/erosion?
4) How you feel when you think about the problem of coastal land loss/erosion?
5) Can you describe what it would mean to restore and/or protect the coast?
6) What conditions (i.e. environmental, social, economic) threaten the coast?
7) How do you explain the problem of land loss/erosion to others?
    a. What factors are causing it or have caused it?
    b. How do we know this is happening?
    c. What could and should be done about it?
    d. Who are the main stakeholders involved in the problem?

e. Do you view what is happening as a major crisis or disaster, why or why not?
f. What are the major consequences of coastal land loss/erosion, and what are the consequences of restorative or protective measures?

8) What else should be done to protect coastal residents from environmental hazards?
9) What are the major barriers and challenges to saving the coast?
10) What are the major successes and/or failures of coastal restoration and protection projects?

APPENDIX B
List of Acronyms

ACOE	U.S. Army Corps of Engineers
AWF	America's Wetland Foundation
BTNEP	Barataria-Terrebonne National Estuary Program
BBP	Bayou Bridge Pipeline
BP	British Petroleum
CPRA	Louisiana Coastal Protection and Restoration Authority
CRCL	Coalition to Restore Coastal Louisiana
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning Protection and Restoration Act
DNR	Louisiana Department of Natural Resources
DOT	Louisiana Department of Transportation
EDF	Environmental Defense Fund
EIB	Environment Impact Bonds
EPA	U.S. Environmental Protection Agency
GOMESA	Gulf of Mexica Energy Security Act
HG	Healthy Gulf
LA-SAFE	Louisiana Strategic Adaptations for Future Environments
LA-TIG	Louisiana Trustee Implementation Groups
LPBF	Lake Pontchartrain Basin Foundation
MP	Louisiana's Comprehensive Master Plan for a Sustainable Coast
MRD	Restore the Mississippi River Delta Coalition
NAS	National Audubon Society
NFWF	National Fish and Wildlife Foundation
NGO	Non-governmental organization
NRDA	National Resource Damage Assessment
NRC	National Research Council
NWF	National Wildlife Federation
NOAA	National Oceanic Atmospheric Administration
OCD	Louisiana Office of Community Development
RESTORE	Resources and Ecosystem Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act
Sci-TEK	Science and Traditional Ecological Knowledge
SELA VOICE	Southeast Louisiana Voices of Impacted Communities and Environments
USGS	United States Geological Survey