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SEA-LEVEL RISE AND CLIMATE JUSTICE FOR NATIVE AMERICANS
AND INDIGENOUS PEOPLES:
AN ANALYSIS OF THE UNITED STATES' RESPONSE AND
RESPONSIBILITIES

by

SARAH E. SWIERSZ

University of Central Florida, 2020

A thesis submitted in partial fulfillment of the requirements
for the Honors Undergraduate Thesis Program in Interdisciplinary Studies
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Thesis Chair: Peter J. Jacques

ABSTRACT

Sea-level rise and inland flooding driven by climate change threaten the health, economic development, and social stability of Native American Tribes and Indigenous Nations. Further, loss of traditional lands threatens the cultural practices and ties to heritage that provide ontological grounding for many Indigenous Peoples. While the Federal Trust Doctrine implies a responsibility for federal policy to aid Tribes by compensating them for impacts of sea-level rise, there is no legislation securing compensation for Indigenous Nations not recognized as Tribes. Due to the incommensurable nature of the damage to Native American and Indigenous communities who lose their lands to sea-level rise, any processes of compensation must transcend relocation measures and monetary transactions. Further, to combat aid programming that perpetuates the social, legal, and cultural disenfranchisement of Native Americans and Indigenous Peoples, legislation for compensation must endorse and empower Tribes' and Nations' autonomy by meaningfully including their insights. This study records the perspectives of members of the Seminole and Miccosukee Tribes and Gullah/Geechee Nation on climate change in the Southeastern U.S., specifically, sea-level rise washing out ancestral lands. This study's ultimate purpose is to understand how Tribe and Nation members perceive the response and responsibility of the U.S. government in these situations. This study also presents a legal/political analysis of climate justice in these contexts, an exploration of Truth and Reconciliation Commissions as a mechanism for climate justice, and culminates in a policy proposal regarding climate justice for Native Americans and Indigenous Peoples.

DEDICATION

Weeks after I had the privilege of being hosted by him and his family for a visit to their home in South Carolina and days before the defense of this thesis, Bernard Grant passed away after a courageous battle with cancer. Uncle Bernard, as I was introduced to him, kindly welcomed me into his space and shared his experiences with me. I only spent a couple of hours with him, but his kindness shone through. His love for his Nation and culture, faith in their persistence and resilience, and hope in the young members of his family were extremely apparent.

This thesis is dedicated to Bernard Grant and to the Gullah/Geechee Nation, the Miccosukee Tribe of Indians of Florida, and the Seminole Tribe of Florida—to their persistence and resilience amidst the ravaging forces of colonization and imperialism that tear apart, exploit, erase, and push down—to the voices of Native Americans and Indigenous Peoples across the Southeastern United States who have been systematically pushed down and threatened by erasure from prevailing narratives—to those whose mere existences are fights against erasure.

To my fellow allies of Indigenous and Native Peoples and Nations, especially those who also experience the many privileges of whiteness in a world built on race-based inequities:

May we take hold of our responsibility, as we learn and come to know better, to be and do better, for the future of all of Earth.

What didn't you do to bury me

But you forgot that I was a seed

— Dinos Christianopoulos (1978)

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American T.V., I gained a new understanding of American culture and developed an interest in the history and experiences of Native Americans—and I set a goal that I would complete an honors thesis related to anthropology. Thank you for being a great teacher and inspiring me! Dr. Bledsoe, your breadth and depth of knowledge is inspiring, and I'm grateful for your guidance! Thank you for the many patient office hours you spent listening to my ideas, sharing readings, and lending a new perspective—and thank you for putting up with my many space law and policy questions and ideas! Dr. Jacques, thank you for the countless hours you spent supporting this work, through the months-long processes of obtaining research permits and the many, many months-long processes of developing the facets of this research idea and study—thank you for consistently helping me work through my numerous questions, ideas, and anxieties—thank you for helping this student of the biophysical sciences learn how to conduct political ecology research! I will always remember what I've learned from you about the lifelong challenge of creating excellent, compelling research that “pulls back the curtain” on those in power by centering the voices of those oppressed—and in pursuing this challenge, I will always seek to mentor others, even if just partially as well, as you have mentored me.

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Te Amo, Ti Amo, & Я тебя люблю.

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LIST OF ABBREVIATIONS

AM	Adaptive Management
CCA	Constant Comparison Analysis
CERP	Comprehensive Everglades Restoration Plan
G/GFA	Gullah/Geechee Fishing Association
GT	Grounded Theory
IEK	Indigenous Ecological Knowledge
IPG	Indigenous People Group
L&D	Loss and damage
NEL&D	Non-economic loss and damage
SFWMD	South Florida Water Management District
SHPL	St. Helena Public Library
SLR	Sea-Level Rise
STA	Stormwater Treatment Area
THPO	Tribal Historic Preservation Office
TRC	Truth and Reconciliation Commission
UCF IRB	University of Central Florida Institutional Review Board
USACE	U.S. Army Corps of Engineers
WIM	Warsaw International Mechanism

CHAPTER 1: INTRODUCTION

1.1 Study Description and Purpose

While some effects of climate change in the Southeastern United States are not clearly manifested, such as shifts in land surface temperatures or precipitation levels, due to its landscape and complex meteorological environment, a trend toward rising sea levels is clear (National Research Council, 2014, pp. 131, 133). Sea-level rise (SLR) and inland flooding driven by climate change threaten the health, economic development, and social stability of Native American Tribes and Indigenous Nations. Further, loss of traditional lands threatens the cultural practices and ties to heritage that provide ontological grounding for many Indigenous Peoples. In the context of global climate change as a phenomenon driven by greenhouse gas production disproportionately attributable to developed countries such as the United States relative to contributions by Indigenous People Groups, loss of heritage land washed out by sea-level rise is an international human rights crisis.

While the Federal Trust Doctrine implies a responsibility for federal policy to aid Tribes by compensating them for impacts of sea-level rise, there is no legislation securing compensation for Indigenous Nations not recognized as Tribes. Due to the incommensurable nature of the damage to Native American and Indigenous communities who lose their lands to sea-level rise, any processes of compensation must transcend relocation measures and monetary transactions. Further, to combat aid

programming that perpetuates the social, legal, and cultural disenfranchisement of Native Americans and Indigenous Peoples, legislation for compensation must endorse and empower Tribes' and Nations' autonomy by meaningfully including their insights.

This study grounds this claim of an international human rights crisis and its general analysis in a theoretical framework of Indigenous ontology, with "ontology" referring to ways of being and knowing (Stewart-Harawira, 2005). This framework is grounded in three guiding principles that serve to view the world in a sacred way, emphasizing a sense of place, a full world of agents acting together, and the reciprocity of actions between human and non-human entities. In this framework of analysis, loss of land to climate change and economic compensation for such losses and damages are incommensurable: There is no way to monetarily evaluate the loss of sacred heritage land that grounded a people group to the world.

In this framework, those responsible for climate change have a duty surpassing the relocation of displaced communities to recognize their responsibilities and seek reconciliation with those who are not responsible for but suffer from global climate change. This can be accomplished through the establishment of a Truth and Reconciliation Commission to investigate the United States' violations of Native Americans' and Peoples' human rights through its contributions to global climate change. To combat federal aid programming that perpetuates the social, legal, and cultural disenfranchisement of Native Americans and Peoples, legislation for compensation must endorse and empower Tribes' and Nations' autonomy by including the insights of Tribal and community stakeholders in a meaningful manner. Processes

of Truth and Reconciliation may give the voices of Native Americans and Peoples a platform, promoting perspectives that can broaden our notions of citizenship and diversify existing frameworks for legitimizing the rights of Native Peoples.

The purpose of this study is to record the perspectives of members of the Seminole and Miccosukee Tribes and Gullah/Geechee Nation on climate change in the Southeastern U.S. Specifically, sea-level rise washing out ancestral lands as result of climate change and ideas of biocultural preservation when considering the future of the Florida Everglades, the development of the Comprehensive Everglades Restoration Plan, and, more broadly, the future of the coastal Southeastern U.S. The ultimate purpose is to understand how Tribe and Nation members perceive the response and responsibility of the U.S. government in these situations.

This study employs two concurrent methodologies to address two aspects of the question of the United States' response and responsibilities surrounding the threat sea-level rise presents to coastal Native American Tribes and Nations. A political/legal analysis of historical laws and policies and modern legal interpretations of Native American law is employed and situated within the overarching theoretical framework of Indigenous Ontology. This analysis is grounded in exploring Truth and Reconciliation Commissions as a mechanism for non-economic loss and damage compensation in the contexts of international human rights law and climate justice.

Fieldwork interviews, collected documents, and participant observations are analyzed through a Grounded Theory (GT) approach and the technique of constant comparison analysis to build theories grounded in the participants' experiences and

perspectives. The process of theory building connects with the study's overarching theoretical framework of Indigenous Ontology by joining the political/legal analysis and emergent theory in a policy proposal.

1.2 Study Significance

There is a lack of qualitative research aimed at recording the perspectives of Indigenous stakeholders in the Southeastern United States on issues of climate change and climate justice. This study provides primary-source insights into issues of climate change and climate justice for Native Americans and Indigenous Nations in the Southeastern U.S. by building theories grounded in the participants' perspectives. Further, this study presents a legal/political analysis of climate justice in these contexts and culminates with a policy proposal based on the data analysis, exploring Truth and Reconciliation Commissions as a mechanism for climate justice to address sea-level rise, non-economic loss and damage compensation, and climate justice for Native Americans and Indigenous Peoples.

CHAPTER 2: LITERATURE REVIEW

...far from irrelevant in the modern world, traditional indigenous social, political and cosmological ontologies are profoundly important to the development of transformative alternative framework for global order and new ways of being.

— Makere Stewart-Harawira, *The New Imperial Order: Indigenous Responses to Globalization*, 2005

2.1 Climate Loss and Damage Policy

Historically, climate change policy has been organized into two main categories: mitigation, efforts to reduce climate change itself, or adaptation, efforts to adjust to current or anticipated impacts of climate change. The global failure to mitigate climate change and insufficiencies of efforts to adapt to climate change have carved a space for a third category of climate change policy and an international mechanism to address climate change: loss and damage. To address the loss and damage impacts of climate change upon developing countries, the United Nations Framework Convention on Climate Change established the Warsaw International Mechanism (WIM) in 2013. The WIM mainly addresses how to deal with non-economic losses, such as heritage losses, and linkages between loss and damage and climate migration/displacement (James et al., 2014).

In my review of literature on climate L&D policy, I identified two main themes: a concern for the scientific and ethical dilemma of attributing responsibility for losses and

damages and a call to action for research that explores L&D theoretically and practically.

Attributing Responsibility: A Scientific and Ethical Dilemma

In the complex web of global social-ecological systems, a fundamental issue of L&D policy is the difficulty of identifying to whom losses and damages can be attributed.

James et al. (2014) argue the WIM is not addressing the fundamental questions of what counts as loss and damage from climate change and which losses and damages are relevant. While they recognize climate change attribution research is a valid approach to addressing these questions, the authors call for developing a framework of collaboration between scientists and policymakers to address stakeholder concerns and build support for climate change policy. By laying a foundation by developing this framework, attribution science can make a more effective contribution to policy.

Mechler & Schinko (2016) argue that, for climate loss and damage policy to be effective, it is imperative to develop and include climate risk analysis. Currently, the WIM associates climate risks with extreme events; however, there is no formal definition for “loss,” an idea associate with the notion of irreversibility, losses and damages that cannot be undone. The author recognizes a shift from the academic establishment of the definition of “risk” to a more practical focus on climate risk management, which emphasizes anticipating, avoiding, preventing, and financing risks while absorbing

remaining impacts. Amidst this shift and the facts that risk and risk tolerance are socially constructed and avoidable risks are becoming more intolerable and unavoidable, a policy space is open to create implementation pathways for loss and damage policy into climate risk management and address issues of climate justice, specifically distributive justice.

Verheyen (2015) investigates the approaches of climate law and science to causation by reviewing the legal concept of causation in the context of “detection and attribution”. There is a need to identify how much scientific evidence is necessary to show legal causation between a specific loss or event and anthropogenic climate change. One strategy is to apply a reversal of the burden of truth, though it remains to see how effective this legal framework is in L&D law for mitigating uncertainties in attribution science and addressing the ethical question of responsibility for the impacts of climate change. The author concludes by proposing the question of “would a loss have happened without an anthropogenic signal?”

Call to Action

McNamara & Jackson (2018) review the literature surrounding loss and damage as one of three subfields of climate policy: mitigation, adaptation, and L&D compensation. They suggest current research addresses loss and damage in the conceptual framework of “limits to adaptation,” consists of more practical than critical studies, conceives loss and damage as a current and future condition, and prioritizes

the economic dimensions of loss and damage. They call for future research that focuses on empirical and theoretical models of potentially transformative changes; explores questions of what people value and how they engage with loss and grief; includes the perspectives of most vulnerable groups in theory-building and decision-making; and research focused on policy solutions and critical analysis of loss and damage compensation frameworks and the Warsaw International Mechanism (McNamara & Jackson, 2018).

2.2 Theoretical Framework of Indigenous Ontology

This study grounds its analysis in a framework of Indigenous ontology, with “ontology” referring to ways of being and knowing. This framework is grounded in three guiding principles that serve to view the world in a sacred way, emphasizing a sense of place, a full world of agents acting together, and the reciprocity of actions between human and non-human entities. In this framework of analysis, loss of land to climate change and economic compensation for loss and damage are incommensurable: there is no way to monetarily evaluate the loss of sacred heritage land that grounded a people group to the world. This framework is based on Stewart-Harawira’s text *The New Imperial Order. Indigenous Responses to Globalization* (Stewart-Harawira, 2005).

Stewart-Harawira analyzes and responds to imperialism and globalization by developing an Indigenous ontology. Her work is based on historical and political-economic analyses of capitalism, imperialism, and globalization, to which she constructs

an Indigenous ontology in response. I argue this Indigenous ontology demonstrates that, in a sacred world, loss of heritage land to climate change is incommensurable with economic L&D reparations.

Key Principles of Indigenous Ontology

The three guiding principles that ground my framework of Indigenous ontology have been identified by a long tradition of Indigenous philosophers from spaces and places across the world. For this study, I developed an understanding of Indigenous philosophy based upon the Native American tradition, namely the work of Vine Deloria Jr., arguably the most prominent of Native American philosophers. By reviewing his seminal work *God is Red* and some writings of his intellectual successors George Tinker and Daniel R. Wildcat, I developed a better understanding of the three guiding principles grounding my framework of Indigenous ontology.

The first principle is spatiality, the grounding of one's ontology in space. This is markedly differently from the Euro-American grounding of experiences firstly in time, and then subsequently in space; Euro-American ontology prioritizes and operates on a temporal scale (Tinker, 1996, p.162). This distinction is important, as Euro-American and Western philosophies prioritize ideas about the meaning of time, and this grounding in temporality allows for claims of truths that are universal across time (and, by default, space). Tinker points out that the foundational metaphor of spatiality in Indigenous ontology is indicative of the centrality of land to Indigenous spirituality and knowledge

(p. 163). An Indigenous ontology, grounded in spatiality, posits truths that are localized, relative to different spaces and places.

The foundational metaphor of spatiality also indicates a responsibility for our actions with our space and places (Tinker, 1996, p. 163), which leads to the second principle of my framework of Indigenous ontology: viewing the world as a full world, full of interconnected agents acting together. This view of the world creates a need for respect; further, it ties to the third principles, a need for reciprocity between human and nonhuman actors. Reciprocity for human actions is built into the view of the world as full and interconnected, where every action has a unique effect. Reciprocity serves as a mechanism for ensuring the aforementioned responsibilities for actions in a space are upheld. Tinker frames reciprocity as a foundation for balance in ecosystems (p. 160).

Rights vs. Responsibilities Societies

Another important aspect of Indigenous ontology, an aspect that particularly shapes discussions of climate justice throughout this work, is the differentiation of “rights” and “responsibilities” societies. Tinker demonstrates that a central organizing principle of Euro-Western societies is the concept of rights respective to individuals. Further, colonialism has imposed a culture of individualism throughout the world, and the spread of individual rights can destroy the cultures of Indigenous communities, built on collective responsibilities, with impunity (Tinker, 1996, pp. 168-169).

2.3 Research Participant Histories and Ontological Conditions

Seminole Tribe of Florida and Miccosukee Tribe of Indians of Florida

The Seminole Tribe of Florida and Miccosukee Tribe of Indians of Florida share a common history, a legacy present in the shared kinship of some members between the Tribes to this day. I am presenting the Tribes' histories together to highlight their common experiences; however, it is imperative to recognize the Seminole and Miccosukee Tribes are two distinct entities, with separate governing bodies, membership customs, and activities. To this day, both Tribes are economically advanced relative to the status of Tribes nationally, with modernized economies drawing in funds from the real estate, hunting, and casino industries, amongst others (Benitez, 2018).

The history of the Miccosukee and Seminole Tribes is a story of persistence and preservation of their cultures, highlighting a main cultural theme of Seminole and Miccosukee Tribes: They were not pushed out of Florida during the United States' crusade to exterminate Native Peoples through militaristic campaigns, such as the Trail of Tears during the Removal period of federal tribal policy. The Seminole and Miccosukee people in Florida trace their histories to ancestors who retreated deeper into the Everglades, outlasting those they fought (Backhouse, Rosebrough, & Weisman, 2018).

The ancestors of the Seminole and Miccosukee Tribes, the Creek Indians, have a recorded presence in Florida dating back to their raids of Spanish missions in 1702. In 1765, the political separation of the Creek and Seminole began with the Treaty of Picolata, when Cowkeeper withheld participation in a council of Creek Indians ceding Florida east of the St. Johns River to the British. From then, the Seminoles established villages and bands from North to Southeast present-day Florida, and they stood against General Andrew Jackson's invasion of Spanish Florida in 1818, the First Seminole War. The Treaty of Moultrie Creek in 1823 reflected the government's policies to contain and remove the Seminoles to Indian Territory, and the Seminoles fought against removal through the Second Seminole War of 1835, which ended in 1842 with the removal of almost 4,000 Seminoles to Indian Territory; hundreds more were killed in war or died waiting to be removed. Approximately 300 Seminoles survived in Florida, and the Third Seminole War of 1855 marked the final fight against removal—less than 200 Seminoles survived in Florida, retreating to the Everglades. Through the end of the 19th Century and first half of the 20th, the Seminoles experienced government evaluations, interest from outsiders in their culture, and the great development of the South Florida, especially with the opening of Tamiami Trail, a road connecting Naples and Miami, Florida, across the Everglades. In 1957, the Seminole Tribe of Florida gained federal recognition, and in 1962, the Miccosukee Tribe of Indians of Florida gained federal recognition (Kersey, 1987; Weisman, 1999, pp. 168-170).

Throughout the fight against extermination, the Everglades has been the central landscape in the formation of the Seminole and Miccosukee Tribes' cultural identities. Thus, it is key to contextualize the history and ontological condition of the Seminole and

Miccosukee Tribes with a discussion of the future of the Everglades, namely Everglades restoration and SLR.

Climate Change, Sea-Level Rise, and Everglades Restoration

In South Florida, impacts from SLR are already apparent (National Research Council, 2014, p.137; Palm & Bolsen, 2020). Local SLR projections for South Florida in low (historic), intermediate, and high scenarios of SLR range 4-26 inches over the next 50 years and 9-78 inches over the next century (National Research Council, 2014, p. 138). Local SLR projections can differ from global SLR projections due to factors such as ocean circulation patterns, and projected SLR in South Florida exceeds the projected average of global SLR by 11-38 inches by 2100, according to an estimate by the IPCC (pp. 138-139).

In the Florida Everglades, SLR and hydrologic restoration are key drivers in estuarine dynamics over spatial and temporal scales (Ewe et al., 2006, p. 460), and there is evidence that SLR has a higher impact in dry seasons, when there is essentially no flow of freshwater to raise the difference between the freshwater level and sea level (Dessu et al., 2018, p. 175). Salt-water overwash and inundation will cause habitat loss, likely resulting in a decline in populations of wading birds and other freshwater species, and may increase carbon emissions by destroying peat substrate of the Everglades freshwater wetlands, thus releasing sequestered carbon and killing freshwater plant communities (Pearlstine, 2010).

Although it is more difficult to project the effects of climate change on land surface temperatures and precipitation levels in comparison to SLR, it is understood that significant changes in temperature and precipitation coupled with SLR will have great impacts on the Everglades and CERP (National Research Council, 2014, p. 167). The magnitude and rate of changes in the physical environment, such as SLR and temperature changes, and capacity of the ecosystem to adapt and be resilient in the face of these changes will determine how climate change impacts the Everglades (pp. 139-140).

Swihart's (2011) book about water management systems in Florida, *Florida's Water: A Fragile Resource in a Vulnerable State*, provides an overview of the history and responsibility of water management systems in Florida, addressing the key issues surrounding Florida's water management and each of the State's five water management districts. He states, "Climate change is the biggest sustainability challenge." (p. 230)

The National Research Council's 2014 Progress Toward Restoring the Everglades: The Fifth Biennial Review independent report found that the CERP planning process did not adequately consider climate change and suggested future plans integrate analysis and monitoring of climate change, specifically accounting for the effects of SLR and "potential hydrologic changes in systemwide planning and project prioritization" (p. 167). Ultimately, the report suggests CERP planners design for flexibility in light of future changes in temperature, precipitation, and SLR to account for the myriad factors that could "help maintain the diverse mosaic of Everglades habitats

and increase their resilience amidst changes in climate and sea level....” This may result in a need for reevaluating and adjusting goals for Everglades restoration (p. 168). Although, it is not clear that those in charge of implementing Everglades have identified a goal for the endpoint of restoration in the first place (Scarlett, 2013, p. 8).

Responses to threats from climate change and SLR can be addressed by building resilience to climate change into Everglades Restoration through adaptive management (AM) practices. Koch et al. (2015) projected the effects of climate change on the coastal foundation communities of the Everglades, such as mangrove forests, coral reefs, and macroalgae/seagrass, in a 2060 scenario, finding that marine-terrestrial boundaries will become dynamic with increased saltwater inundation, particularly in landscapes with micro-elevation, such as South Florida. They call for a new management paradigm that connects structures and dynamics of freshwater, terrestrial, and marine ecosystems amidst accelerating SLR and integrates societal information into coastal planning through an “integrative and resilience-focused management strategy...within an adaptive management framework....” (pp. 871-872)

In a review of the challenges and opportunities of collaborative AM in the 21st Century, Scarlett (2013) describes collaborative AM as merging “science, collaboration, and a focus on results” in management contexts characterized by “(1) high degrees of uncertainty; (2) complexity resulting from multiple variables and non-linear interactions; (3) interconnectedness—among issues, across landscapes, and between people and place; and (4) persistent, possibly dramatic, change.” (p. 1)

To address complex challenges in social-ecological systems, a key aspect of AM is integrating various systems of knowledge, such as scientific, professional, and local and indigenous knowledge about social-ecological systems and their management (Voß & Bornemann, 2011). In their review of the first decade of AM in the CERP, LoSchiavo et al. (2013) identify a key lesson of developing an applied science framework to:

...bring the best possible science forward through coordination among the various scientific institutions, including universities, Native American tribes, private entities, and local, state, and federal agencies; to improve efficiency and effectiveness; and to leverage limited resources. (p. 6)

This lesson identifies Native American Tribes as one of many entities in the knowledge and governance network of an applied science framework. However, this lesson and the literature surrounding climate resilience, Everglades restoration, and AM neither directly reports the perspectives of Tribe members on climate change in the Everglades nor focuses on their leading of AM practices to build climate-change resilience into Everglades restoration planning. At a more fundamental level, the literature does not address integration of Tribes' place-based, localized knowledge, known as Indigenous Ecological Knowledge (IEK), into AM strategies and practices.

Legal reviews of AM of the Tamiami Trail in Everglades restoration (Light, 2006) and of the adaptive capacity of governance structures of the Everglades social-ecological system to face climate change (Gunderson et al., 2019) identify the Seminole and Miccosukee Tribes as actors in AM due to the conservation lands on their reservations or involvement in legal proceedings, such as litigation initiated by the

Miccosukee Tribe. The Tribes were and are not directly included in knowledge production and decision-making processes of AM.

Estenoz and Bush (2015) review the integration of Everglades science with Everglades restoration decision-making amidst climate change from a management perspective, addressing the implications the uncertainties of climate science have for decision-making. One aspect of management they address is managing stakeholders who have firsthand or intergenerational knowledge of the Everglades, which they frame in the context of difficulties of studying and managing complex ecosystems. They provide the example of problems for such stakeholders that arose during the Central Everglades Planning Project, when the emerging vision of the restored Everglades did not match stakeholders' experiences of the Everglades that they and the previous generation gained firsthand (pp. 881-882).

They explain this phenomenon, saying, "The fact is that most stakeholders have vested interests in the modern, compartmentalized, fragmented, highly managed, somewhat predictable Everglades—whether they fish in canals, farm on drained wetlands, or live in a suburb of the east coast." (p. 882) While this view of stakeholders' interests is valid and makes sense, as they are speaking mainly of stakeholders from urban settlements, it does not account for the firsthand or intergenerational knowledge of Tribe members, whose view of the Everglades is informed by many generations of inhabitation in harmony with and management of the landscape.

Scarlett (2013) presents a possible explanation for why IEK has not been meaningfully integrated into AM of Everglades restoration: As a part of her larger review

of collaborative AM in the 21st Century, she uses Everglades restoration as an example of one of the “largest and most ambitious restoration endeavors in the United States,” involving “multiple federal agencies, the U.S. Congress, states, tribes, and multiple stakeholders...the South Florida Water Management District and local governments.” She explains that, in landscape-scale conservation, decision-making requires “integrated, cross-jurisdictional, multi-agency, public-private deliberations and decisions.” However, decision-makers and managers often lack governance mechanisms that deliberatively engage public/stakeholder participation to overcome a participation gap, which can limit legitimacy in decision-making. Particularly, the participation gap limits “*relevant flows of experiential knowledge—the knowledge of time, place, and situation—and the articulation of multiple values*. [emphasis added]” (p. 9)

In an overview of AM and adaptive governance in the Everglades ecosystem, Gunderson & Light (2006) argue for the need to shift to experimentation in AM that engages a broad base of stakeholders alongside developing an adaptive governance approach to break out of a “management trap”:

The Everglades is a national experiment in sustainability science, with some successes and a history of failure...*the management system is trapped in a structure that is not only resistant to change, but able to withstand change* [emphasis added]... Adaptive approaches in management and governance are critical components for recovery of the ever-changing Everglades. (pp. 324, 334)

It is possible that the management trap or the public/stakeholder participant gap (or a combination of both) are factors limiting the inclusion and integration of IEK in Everglades AM. Ultimately, addressing why IEK has not been meaningfully integrated in historical AM projects or planning strategies is beyond the scope of this research; however, I note with the following example it is not due to a lack of IEK or other local knowledge systems produced in the Everglades.

Ogden (2008) provides a historical example of a local knowledge system developed in the Royal Palm Hammock of the Everglades, the most visited site within Everglades National Park to this day (p. 209). By analyzing the “hidden humanity” of the landscape, Ogden uncovered records of localized ecological knowledge produced by Seminole and white rural hunters. These hunters served as guides and contributed this knowledge to the production of formalized, Western-based ecological knowledge, though their contributions were dismissed and historically distorted to create a space for naturalists to study and “discover” a unique landscape (p. 224).

To justify the narrative of “discovering” of a landscape despite clear evidence of human inhabitation and a system of local knowledge, naturalists firstly constructed the site as an “isolated tropical Paradise” prime for fieldwork. They constructed the Seminole people as “naturalized to the landscape” and dismissed rural white hunters as “...both out of place and as threats to the continued viability of the hammock’s unique biota.” Secondly, Ogden found the literature constructed forms of residential knowledge, namely local landscape practices resulting from place-based knowledge, as “distinctly inferior” to knowledge gained from the naturalists’ fieldwork. Ogden argued this is

emblematic of negative stereotypes of local landscape knowledge and practices in natural history literature (Ogden, 2008, p. 224).

Literature on climate change, Everglades restoration, and AM lacks solutions centered on the perspectives and leadership of the Tribes. Further, the literature even lacks “pragmatic” solutions that operationalize collaboration with Tribes as a means to gaining localized, place-based, IEK for a better understanding of the effects of climate change to improve AM practices. Such a motive for inclusion of Indigenous Peoples in AM of the Everglade is clearly very problematic, and I do not argue that such a form of extractive, manipulative “inclusion” is an acceptable management strategy—I simply note that Everglades AM solutions have not included this approach to “collaborating” with Indigenous Peoples for “pragmatic” purposes of gain.

I find the lack of AM approaches for gain in the literature interesting, as such approaches would require relinquishing less power from government and urban settler entities than would centering AM practices on the perspectives and leadership of Tribe members while accomplishing a token “inclusion” of Indigenous Peoples that often happens in research (Cochran et al., 2008, p. 24)—and this particular “inclusion” could be motivated by gaining valuable knowledge for building resilience to climate change. It is likely relinquishing of power is not attractive to those governing Everglades restoration; the greatest relinquishing of power through the AM systems of Everglades restoration would be to practice AM of the Everglades as a process of decolonization. Tuck and Yang (2012) define “decolonization” as breaking down legacies of settler colonialism, particularly by repatriating land from settlers to the Indigenous Peoples.

Based on the lack of meaningful validation and inclusion of Tribes as co-leaders and co-producers of knowledge in Everglades AM, it is not surprising that the literature does not make more radical proposals of processes of decolonization through the AM of Everglades restoration.

Overall, though a review of literature about climate change, SLR, and Everglades restoration, I found a robust body of work related to the history of the Everglades and evaluations of management practices and restoration plans. The literature presents a concern surrounding the effects of climate change on the Everglades and Everglades restoration, including a call to action for research and management plans that investigate this relationship. However, works addressing the effects of climate changes as a central theme constitute a fraction of the literature on the Everglades, and they have been published more prolifically in the past decade, mainly in the frame of developing a plan for AM of the Everglades to build climate resilience. This concept of AM does address the inclusion of communities and a need for citizen engagement in the management process, but no works center AM on the perspectives and experiences of Native Americans living in the Everglades, even for the sole benefit of gaining insights from their localized, place-based, IEK.

In general, literature surrounding climate change, SLR, and Everglades restoration lacks studies grounded in the perspectives of members of the Seminole and Miccosukee Tribes. A plethora of studies investigate the ties between Indigenous history, culture, ontological grounding, and the Everglades, and some of these studies identify the effects of climate change on the Everglades as threats to the Tribes'

continuation. However, the literature neither directly reports the perspectives of Tribe members on climate change in the Everglades nor focuses on their leading of AM practices to build resilience to climate change into Everglades restoration planning.

Gullah/Geechee Nation

The Gullah/Geechee Nation has existed as an IPG since the 17th Century, when Africans were kidnapped from various ethnic groups from West and Central Africa and taken to the eastern United States through the Transatlantic slave trade. These people were enslaved on the plantations of coastal North Carolina, South Carolina, Georgia, and Florida. Throughout their enslavement, Africans from many different ethnic groups formed a distinct culture and language, Gullah, based on their roots in Africa and the coastal march landscapes and seascapes of the plantations. The slaves were primarily isolated on the Sea Islands, where they grew the plantation crops for owners who lived inland; the Sea Islands were not accessible by bridge until the 1950s. Since the mid-20th Century, members of the Gullah/Geechee People Group have persisted to officially declare themselves as the Gullah/Geechee Nation on July 2, 2020. The Gullah/Geechee Nation has been recognized as a distinct minority group by Congress and have participated in U.N. proceedings as an Indigenous Nation; they have an official Cultural Corridor from Jacksonville, North Carolina, to Jacksonville, Florida, and 35 miles inland to the St. Johns River that is recognized and managed by the National Park Service as a National Heritage Area. Their official language is Gullah, and some

members maintain a subsistence fishing economy throughout the Sea Islands (National Park Service, 2005, pp. 13-14).

Fuller provides an exploration into Gullah/Geechee indigeneity, as the Gullah/Geechee Nation expands the traditional bounds of what is considered “Indigenous”: The Gullah/Geechee Nation is not Indigenous to the Sea Islands in the sense that the Sea Islands are the land of their West and Central African ancestors; however, following kidnapping and removal from their ancestral lands in West and Central Africa, descendants of the Gullah/Geechee Nation have maintain and fused cultural elements of their ancestral lives, from language and food to spirituality, to maintain a connection to their ancestors through the landscapes and seascapes of the Sea Islands. This formation of an Indigenous identity through the lived experiences in a specific land/seascape brings a very different perspective to indigeneity (Fuller, 2019).

Throughout the history of the Gullah/Geechee Nation, their culture has been threatened by development and dispossession of their land. As Tuck & Yang describe, chattel slavery is the subjugation and force labor of slaves whose actual lives are property, a commodity, through settler colonialism. The chattel slave provides excess labor for the settler, which the settler never repays, as that would require giving up property, land (2012, p. 6). This dynamic of settler colonialism is overwhelmingly apparent even after the liberation of slaves in the United States. To this day, members of the Gullah/Geechee Nation face major threats of dispossession of land through coastal development, the influx of “amenity migrants” to the region (Finewood, 2012), and the issue of heirs’ property—that the government does not recognize the cultural

system of leaving property to all heirs for family ownership, which often results in the loss of land ownership/property rights by the family (Rivers, 2006).

Shared Histories and Experiences

Black Seminoles: The Freedmen Diaspora and Racialization

The history of the Black Seminoles begins in the early 19th Century, when small groups of runaway slaves fled to Florida and joined Seminole villages, and it can be traced through the role of Black Seminoles in wars and the fight for freedom. the migration of Black Seminoles is a venture across the modern American Southeast and even into the Caribbean, beginning in South Carolina, as slaves fled to Florida for freedom, and some moved to the Bahamas. As the Black Seminoles established villages, different wars over the next century would lead some to migrate to Louisiana and Wewoka, Oklahoma; others migrated to Texas and even to Nacimiento de los Negros, Mexico (Porter, 1996, pp. 1-24).

The Seminole Tribe and Gullah/Geechee Nation experienced different forms of racialization, which Wolfe describes as a trend in settler colonialism: “Black people were racialized as slaves; slavery constituted their Blackness.” Settlers maintained the identification of Black people as slaves by constituting any amount of African ancestry, regardless of appearance, as making a person Black to ensure the bondage of slaves as property. The racialization of Native Americans followed the logic of elimination, of

erasing the indigeneity of descendants so the Natives would disappear and their land would remain the settlers' (Wolfe, 2006, p. 388). The Black Seminole experience is unique and adds a multifaceted connection between the experiences of members of both the Seminole Tribe and Gullah/Geechee Nation as Indigenous Peoples.

Subjugation Through Historic Judeo-Christian Proselytizing and Values

The Indigenous Tribes and Nations with whom I collaborated for this study shared a common experience of subjugation through Judeo-Christian proselytizing. This experience is a common global theme of settler colonialism, as missionaries have led the charge to convert Natives to Christianity; Mackenzie describes missionaries as serving as the "pawns of colonial regimes" (1993, p. 63). In this history of the U.S., Wildcat identifies this phenomenon as an aspect of the 3rd removal of Native Americans, a psych-cultural removal (Wildcat, 2009, pp. 2-3). It has also developed a unique relationship between Christianity and Native spiritualities, as Vine Deloria Jr. unpacks in his seminal text *God is Red*. While a review of Judeo-Christian proselytizing in the histories of the IPGs with whom I collaborated for this study is beyond the scope of this work, it is important to call attention to that history, particularly due to the study's focus on climate justice.

Climate justice is affected by climate denial, a systematic movement to discredit and derail climate science and action. Dunlap & McCright demonstrated that the American conservative movement mobilized between 1990 and 1997 to create a

powerful countermovement to climate agreements and actions (2003, p. 348). This countermovement has become deeply embedded in the religious values of conservative Christians. Climate denial by conservative Christians is a finding across quantitative and qualitative studies from the past couple of decades that echoes Lynn White Jr.'s famous 1967 work "The Historical Roots of Our Ecological Crisis," which traces environmental degradation to the anthropocentrism of Judeo-Christian values (Zaleha & Szasz, 2015, p. 19-20). Tinker remarks, "Indeed, it seems that European Christianity has undergone a millennia-long transformation that has consistently place humans in opposition to the rest of creation." (2004, p. 118)

It's important to keep in mind the context of Judeo-Christian proselytizing when exploring climate justice for the IPGs who participated in this study, as the 3rd removal of Native Americans and subjugation of slaves was influenced by the imposing of Judeo-Christian values and norms as tools for oppression by settlers (Tuck & Yang, 2012, p. 6). These experiences shine a light on the current climate injustices these IPGs face, as the climate denial countermovement that prevents climate action and justice has been led by the American conservative movement and perpetuated in conservative Christian communities.

I would like to emphasize this discussion of the connections between Judeo-Christian proselytizing, historical subjugation, and climate injustice through climate denial is extremely nuanced—it is both ineffective, and unethical, to blame an entire religious group for deeply systemic issues of oppression and climate injustice, and that is not at all what I am attempting to do. Further, there are aspects of Christianity present

in the spirituality of the Seminole Tribe, Miccosukee Tribe, and Gullah/Geechee Nation, and hope from Christianity is a large part of the lives of members of the Tribes and Nation to this day.

Ultimately, in this review of the literature, I cannot properly dissect the nuances of this subject. I simply believe there are good reasons for drawing out connections between history oppression of IPGs in the U.S. through Judeo-Christian proselytizing and the climate injustices connected to climate denial engineered by the American conservative movement, based on Judeo-Christian values.

Settler Myths of Erasure Perpetuated Through Development and “Environmentalism”

Throughout my literature review, I have repeatedly come across the theme of settlers erasing the identities of the Miccosukee Tribe, Seminole Tribe, and Gullah/Geechee Nation, especially through development and “environmentalism”. I addressed some of this phenomenon in my discussion of Climate Change, Sea-Level Rise, and Everglades Restoration; however, I’d like to briefly emphasize this myth of erasure consistently shows up in coastal building and development, amenity migration, and ecotourism, amongst other experiences of the Tribes and Nation. This myth echoes a broader push of settler colonialism to erase histories and experiences, that an emergent *terra nullius* could render the Natives obsolete and the settlers as the natural inhabitants of the land (Wolfe, 2006, p. 391). As with any myth, it is key to identify its

political positioning, particularly the politics of which class makes and transmits myths (Slotkin, 1998, p. 8). For the purposes of this study, it's useful to keep in mind the creation and perpetuation of a myth of erasure, even in acts of “environmentalism,” by settlers that threatens the Tribes and Nation.

2.4 Reparative Responses to Climate Loss and Damage Experienced by Indigenous Peoples and Nations

Internationally, there have been removals of IPGs from Native lands due to irrevocable losses and damages. The removal of islanders from the Pacific Islands during over 30 years of nuclear testing in the 20th Century, specifically from Bikini Atoll, provides an interesting example of removal with intentions to relocate an IPG in a similar land/seascape. Islanders in the Atolls were moved to nearby uninhabitable islands where hunger and starvation became common. Despite the contamination of water and food, many Islanders returned to Bikini Atoll so they could live somewhere that was habitable (Yusoff, 2018, pp. 45-47). The example of the Bikini Atoll relocation demonstrates serious issues with the concept of relocation—but in the United States, relocation seems to be the focus of plans for adapting coastal Native American communities to SLR.

Domestic Responses to Climate Loss and Damage Experienced by Native Americans and Indigenous Nations

By 2016, at least ten Native American Tribes considered relocating communities as a climate adaptation strategy (Keene, 2017, p. 260). While the government has created action plans for relocating coastal Native American communities displaced by SLR, these plans do not include compensation for the irrevocable loss of heritage land washed away.

For example, the United States Geological Survey Wetland and Aquatic Center establish a project in 2017 to address threats to the sacred lands of the Chitimacha Tribe of Louisiana. This project focuses on climate adaptation, but it did not specifically address L&D experienced by the Tribe (Spear, 2019). The Chitimacha Tribe is a part of the Band of Biloxi-Chitimacha-Choctaw Indians inhabiting the Isle de Jean Charles in Louisiana. The Isle de Jean Charles is rapidly shrinking, and relocation is the inevitable adaptation strategy for these communities. The Isle community has united to lead their relocation; however, this has not been supported by the government, and there is no formal consideration of L&D compensation by the government (Maldonado et al., 2013, pp. 605, 607). The Quinault Tribe of Washington State provides another example of climate adaptation planning focused on relocation; the Tribe's plan estimates relocation will cost about \$60 million (Keene, 2017, p. 267).

Currently, relocation is a central theme for coastal Native American Tribes developing climate adaptation plans. The government's response has been to either ignore these plans or show support for relocation strategies by co-developing plans, as federal agencies have done, or approving some of the funding necessary for relocation, as the House of Representatives did in 2019 when they passed bill H.R. 729 – Tribal

Coastal Resiliency Act [Coastal and Great Lakes Community Enhancement Act], which the Senate referred to the Committee on Commerce, Science, and Transportation as of December 2019.

Truth and Reconciliation Commissions

A Brief History of Truth and Reconciliation Commissions

Truth and Reconciliation Commissions are reparative justice mechanisms employed by governing bodies to address acts of violence, recognize historical traumas, and find reconciliation and closure for victims and offenders. They have been employed most famously in South Africa following apartheid and in Rwanda after the Rwandan genocide. (Parker, 2017, pp. 28, 42)

Connection to Climate Justice

While there is not a developed body of academic literature addressing the concept of TRCs as a mechanism for climate justice, Scholtz & Ferreira (2015) present a specific criticism of TRCs as a mechanism for climate justice by addressing the fundamental issue of the Global South's distrust of international efforts to address climate change and the failure to observe the historical responsibility for climate change by developed countries. The authors propose transitional justice (TJ) mechanisms as a

way to address this ethical issue. Further, they discount the use of a Carbon Truth and Reconciliation mechanism, as they claim such a mechanism would be more problematic than anything by undermining global climate negotiations and agreements.

Whyte (2019) presents a more general criticism of climate justice mechanisms that directly relates to the concept of TRCs as a mechanism for climate justice: Whyte argues that the length of time it takes to establish action plans and program related to climate justice that are rightly based on values such as consent, trust, accountability, and reciprocity is too long. Whyte proposes, while the current situation may not have yet passed the ecological tipping point, it has passed a relational tipping point has been crossed, and it is too late to coordinate necessary actions to stop dangerous climate change. Any policy solutions proposed by this study will account for this view that coordinated efforts toward halting the progression of climate change may not be in accordance with a sober view of climate justice. It is for this reason this study, and any resulting proposals of policy solutions, focus on aspects of noneconomic loss and damage compensation and Native American law and policy.

2.5 Summary and Research Question

In summary, my review of the literature on climate loss and damage identified two key issues: Firstly, an emphasis on the ethical challenges of attributing climate loss and damage. Due to the boundaryless, complex nature of climate change, attributing loss and damage to a distinct party or group of actors presents a theoretical and legal

challenge, which, pragmatically, makes constructing policy responses to loss and damage difficult. Secondly, a sweeping call to action was present, and many authors identified a need for qualitative research that critically analyzes L&D frameworks and the WIM, includes the perspectives of the most vulnerable groups, and explores questions of what people value, how they engage with loss and grief, and noneconomic dimensions of loss.

The study's theoretical framework of Indigenous Ontology is grounded on three key principles demonstrated by leading Indigenous scholars as common to Indigenous views across time: First, the centrality of space to Indigenous worldviews and histories, as opposed to Western worldviews and histories centered on time and measured by temporal scales. The foundational concept of spatiality in Indigenous Ontology partly explains why Indigenous spirituality is rooted in ancestral land. Second, the world is "full" an interconnected web of agents acting together. This view shifts the focus from the individual to a higher level of understanding of communal processes, and creates a responsibility for all entities, human and nonhuman. Third, the necessity of reciprocity as a mechanism for ensuring continued respect in communities, especially between human and nonhuman entities (cite Tinker here).

The histories and ontological conditions of the Native American Tribes and Indigenous Nations participating in this study found: The Miccosukee Tribe has existed in the Everglades since the 1800s, when they pushed back against removal attempts by the U.S. Government and have persisted in the Everglades amidst the development of the Tamiami Trail to be officially recognized as the Miccosukee Tribe of Indians of

Florida by the Department of the Interior in 1962. However, the Miccosukee Tribe is susceptible to forced removal as a result of sea-level rise. The Seminole Tribe share a similar history, and lineage, with the Miccosukee Tribe; however, they are a distinct Tribe with more members, possess a wider swath of land across their Reservations in Southeast and Southwest Florida, manage a large economy, and have more formalized cultural preservation arms outside of the Tribe, such as their Tribal Historic Preservation Office (THPO). The Gullah/Geechee Nation is formally centered on their Cultural Corridor, extending from Jacksonville, NC, to Jacksonville, FL, and 35 miles inward to the St. Johns River. The Gullah/Geechee Nation was recognized as a unique minority group by Congress in 2006 through the authorization of the “Gullah/Geechee Cultural Heritage Act” and participate in U.N. forums for IPGs

Finally, my literature review of reparative responses to climate loss and damage by IPGs identified key issues of incommensurability and responsibility, establishing a concept of climate justice, and operationalizing the idea of TRCs as a reparative mechanism for climate change as a violation of human rights. In the framework of Indigenous Ontology, the United States’ approach to reparations, relocating a group and providing monetary compensation are both incommensurable with the unquantifiable loss experienced by IPGs whose loss of cultural lands threatens their ontological groundings. Further, prevailing frameworks for reparative responses, at the domestic and international levels, are built on *rights* and clashes with an Indigenous Ontology that emphasizes *responsibility*. This clash exists also in notions of justice, as the prevailing narrative of climate justice is based on the notion of distributive justice, while Indigenous notions of justice emphasize restorative and reparative justices .

TRCs have existed to serve as mechanism for achieving reparative justice through reconciliation achieved by establishing the truth of human rights violations, such as through their employment by the Rwandan government following the Rwandan Genocide and by the South African government following the abolishment of Apartheid. The concept of TRCs as a reparative response to climate loss and damage by IPGs has been criticized as a lesser solution than that of establishing a transitional justice mechanism. However, this legal argument is not grounded upon the perspectives of IPGs and their notions of climate justice.

This literature review led me to develop the following research question:

What are Seminole Tribe, Miccosukee Tribe, and Gullah/Geechee Nation members' perceptions of loss of land to sea-level rise, bio-cultural conservation of the Everglades and coastal Southeastern U.S., and the response and responsibility of the United States government regarding climate justice, specifically in the context of Truth and Reconciliation commissions as a mechanism for noneconomic loss and damage compensation?

CHAPTER 3: METHODOLOGY

To fully enact an ethic of incommensurability means relinquishing settler futurity, abandoning the hope that settlers may one day be commensurable to Native peoples. It means removing the asterisks, periods, commas, apostrophes, the whereas's, buts, and conditional clauses that punctuate decolonization and underwrite settler innocence. The Native futures, the lives to be lived once the settler nation is gone - these are the unwritten possibilities made possible by an ethic of incommensurability.

— Eve Tuck & K. Wayne Yang, “Decolonization is not a metaphor,” 2012

To answer this study's research question, I recorded the perspectives of my research collaborators. I used the methods of personal interviews, document collection, and participant observations. My analysis of the collected data was informed by Grounded Theory (GT), which is an inductive approach to building theory through organizing and reducing data, and emphasizes the reflexive nature of qualitative research. To operationalize theory building, I employed the technique of Constant Comparison Analysis (CCA), which involved coding the data and collating emerging themes to develop a theory. Finally, to root my analysis and findings in the study's framework of analysis, Indigenous Ontology (Chapter 2.2), I connected the theory emerging from my analysis of the data to a policy analysis and proposal related to the connect of TRCs as a mechanism for NEL&D (Chapter 2.4)

3.1 Gathering Data: Fieldwork Interview Methods, Document Collecting, and Participant Observation

I gathered data by the methods of interviews, document collecting, and participant observation. The interviews were semi-structured, interactive discussions (Kolb, 2012, p. 84). I provided a set of questions to direct the conversation, which varied slightly to address the histories and ontologies of each cultural group participating (Chapter 2.3) and are listed in Appendix E and Appendix G. I collected one document, a cultural anthology compiled by Queen Quet titled *WEBE Gullah/Geechee: Cultural Capital & Collaboration Anthology*. This document was referred to by an interviewee, and it corroborates insights from the interviews and observations (Kolb, 2012, p. 83). I also used participant observation as a process of gaining an understanding of the research setting and participants through observations at Gullah/Geechee events in the Spring of 2020 (Kolb, 2012, p. 84).

My methods involved direct interaction with cultural groups, which I approached as collaboration to avoid manipulative and extractive research, and to bring accountability to my findings. This approach can be described by Barnes (1996) as “Indigenous validity.” Barnes asserts that researchers conducting studies with indigenous or culturally-informed participants must check their models, codes, and/or emergent theories with participants to validate findings and understandings (p. 438). This can confirm the “indigenous validity” of codes and emergent theories (Irwin, Klein, Townsend, 1982). Further, Barnes calls for reporting the contexts and conditions in which data were collected, such as the space, time, actors present, and mood, and properly emphasizing these contexts and conditions throughout data analysis (p. 439). I followed these practices by taking a reflexive approach to analyzing my data (Chapter 3.2), sending any manuscripts written about this work to the participants for their

approval prior to publication, and disseminating any published materials directly to participants for their records.

Participant Selection

Three cultural groups participated in this study, two Native American Tribes, the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida, and one coastal Nation, the Gullah/Geechee Nation. To ethically conduct publishable individual interviews, I obtained project approval from the University of Central Florida Institutional Review Board (UCF IRB). The process of obtaining project approval also involved submitting an IRB application and documentation of approval to conduct research from the Seminole and Miccosukee Tribe and Gullah/Geechee Nation governing bodies.

The Seminole Tribe of Florida has their own permitting process for research administered by the Seminole Tribe's Tribal Historic Preservation Office (THPO). A research permit for this study was obtained from the THPO on November 11, 2019 (Appendix C). One permit stipulation is that interviews be conducted in the presence of the Seminole Tribe's Oral Historian. Originally, I planned to employ a focus group and interview methodology; however, the focus groups and interviews were not organized by the time this thesis was submitted for defense. Therefore, no data from focus groups or interviews with the Seminole Tribe were collected, analyzed, or reported for this publication.

On January 10, 2020, the Miccosukee Tribe of Indians of Florida Business Council denied a request to interview Tribal members but approved an interview with the Tribe's Director of Water Resources (Appendix D).

Queen Quet, Chieftess of the Gullah/Geechee Nation, approved a request to interview members of the Nation on February 5, 2020. I collaborated with Queen Quet's Office to schedule participant observations in accordance with the Nation's programming during their 2020 Service-Learning Month in March. I collected a cultural document for analysis during the participant observation activities (Goodwine, 2015). I recruited interview participants through the snowball approach, starting with an acquaintance from the University of Central Florida community who is a member of the Gullah/Geechee Nation. I further recruited participants onsite in South Carolina during participant observation activities.

The Gullah/Geechee Nation has established both a formal process for proposing research with the Nation and guidelines for conducting research with them through the Gullah/Geechee Sea Island Coalition. These guidelines are outlined *WEBE Gullah/Geechee: Cultural Capital & Collaboration Anthology*, in the chapter titled "Guideline for Research in the Gullah/Geechee Nation," which I have copied to Appendix F (Goodwine, 2015, 33-34). Throughout this study, Queen Quet and participants from the Gullah/Geechee Nation were very gracious in collaborating with me to ensure these guidelines were met.

3.2 Building Theory: A Grounded Theory Approach

In 1967, Glaser and Strauss elevated qualitative analysis as a rigorous research methodology by proposing the inductive approach of GT. The goal of GT is to identify and build emergent theory through the process of organizing and reducing data (Glaser & Strauss, 1967). GT was a direct challenge to the dominant deductive approaches to research that tested an existing hypothesis and encouraged quantitative approaches, even so far as to cause the conversion of many qualitative data to quantitative data (Fram, 2013, p. 2). Ultimately, the purpose of GT is to "...develop higher level understanding that is "grounded" in, or derived from, a systematic analysis of data," which is appropriate for studying social interactions and explaining processes, as opposed to testing or verifying existing theories (Lingard, Albert, & Levinson, 2008, p. 459)

GT has three key features: (1) iterative study design, which involves cycles of data collection and analysis, in which data collection and analysis are simultaneous processes that inform subsequent cycles, which refines and complicates emerging theory; (2) theoretical (purposive) sampling, which is not predetermined, and participants are purposefully selected as the analysis progresses to confirm or challenge an emerging theory; (3) and a technique for coding. There are several approaches, but I used constant comparison analysis (CCA) (Lingard, Albert, & Levinson, 2008, p. 459) (Chapter 3.3).

A hallmark of GT is reflexivity, which is reflecting on data collection and analysis to drive the cycles of its iterative study design (Charmaz, 2006, p. 15, 32). As a researcher, I was reflexive about the evolution of my understanding through data analysis and theory building. I did this by keeping a diary over time of my emerging findings and understandings in order to best gather and genuinely interpret the data.

3.3 Operationalizing Theory: The Constant Comparison Analysis Technique

I operationalized theory building by utilizing the CCA technique. CCA is the process of analyzing data by categorizing and coding data, establishing categories, and connecting categories (Boeije, 2002, p. 393). Here, “coding” is defined as the process of analyzing data (Kolb, 2012, p. 84). One way to understand CCA is by separating the process into three major stages: (1) open coding: the researcher chunks the data into small units and attaches a code to each unit; (2) axial coding: the researcher groups codes into categories; (3) selective coding: identifying themes, that describe the content of each group (Onwuegbuzie et al., 2009, p. 5-6). Through CCA, I analyzed data from my notes and experiences to develop categories of concern, pull apart themes from the data, and build theory.

To analyze interviews, I adapted a three-step CCA process based on Boeije’s protocol (2002, p. 395): (1) I compared data within a single interview, which results in a summary of the interview and a list of emerging codes; (2) I compared between interviews within the same group of participants, which resulted in a “proliferation of

codes” until I coded all themes, and then I compared the codes and identified overlapping characteristics and differences across interviews; (3) and finally I compared interviews from different groups of participants, in which I deepened insights and built theory across all data collected for this study. Further, I adapted sets of guiding questions for each step of analysis summarized in Table 1 (p. 397-399).

Table 1: Guiding Questions for Each Step of CCA

Step 1: Comparison Within a Single interview	Step 2: Comparison Between Interviews Within the Same Group	Step 3: Comparison of Interviews from Different Groups
Which codes are used to label the categories in this particular interview? What characteristics do fragments with the same code have in common?	Is interviewee A talking about the same category as B? What do both interviews tell us about the category?	What does group 1 say about certain themes and what does group 2 have to say about the same themes?
What is the core message of the interview?	What are the similarities and differences between interviews A, B, C...?	Which themes appear in one group but not in the other group, and vice versa?
Is the storyline consistent? Are there any expressions that are contradictory?	What are the criteria underlying this comparison?	Why do both groups view issues similarly or differently?
How are all the fragments related?	What combinations of codes/concepts occur? What interpretations exist for this?	What nuances, additional detail, or new information does the other group supply about the group of our interest?

Questions adapted from Boeije (Boeije, 2002, p. 397-399)

Glaser (2002) notes that CCA is an effective process both for uncovering the biases inherent in a researcher’s analysis and for correcting and refining data interpretation from bias throughout iterations of analysis (p. 4, 6). Further, Fram (2013)

argues that using CCA in a study with an overarching theoretical framework is an effective and strong technique, as CCA maintains an emic perspective, or a focus on the participants' views as insiders, and the theoretical framework maintains an etic perspective, or a focus on outside concepts, throughout the analysis (p. 5-6, 7). Maintaining both emic and etic perspectives is important for moving the research from the concrete categories of data to abstract theories (p. 7, 9). Further coupling a theoretical framework with CCA is useful to me as a novice qualitative researcher by providing guidance throughout the process of induction to answer this study's research question (p. 20)

3.4 Connecting Emerging Theory to the Study's Theoretical Framework: A Policy Analysis and Proposal

A theoretical framework provides “the structure, the scaffolding, the frame of your study” (Merriam, 2001, p. 45). I root my analysis and findings in the theoretical framework of Indigenous Ontology (Chapter 2.2), by connecting emerging theory from my data analysis to a legal/political analysis of TRCs as a mechanism for NEL&D policy (Chapter 2.4) to develop a policy proposal. Fundamentally, my policy analysis is based on a legal/political analysis of historical laws and policies and modern legal interpretations of international human rights law in the context of NEL&D and climate justice (Chapter 2.1, 2.4). This analysis explored Truth and Reconciliation Commissions as a mechanism for noneconomic loss and damage compensation for loss of cultural land by IPGs to sea-level rise driven by climate change (Chapter 2.4). My policy

proposal results from the merging of the policy analysis, grounded in the framework of Indigenous Ontology, with the theories that emerge from my data analysis. This policy analysis and proposal, along with the entirety of my findings and this study, is subject to the practices of Indigenous validity outlined above (Chapter 3.1)

CHAPTER 4: FIELDWORK FINDINGS

For a colonized people the most essential value, because the most concrete, is first and foremost the land: the land which will bring them bread and, above all, dignity. But this dignity has nothing to do with the dignity of the human individual: for the human individual has never heard tell of it. All that the native has seen in his country is that they can freely arrest him, beat him, starve him: and no professor of ethics, no priest has ever come to be beaten in his place, nor share their bread with him.

— Frantz Fanon, *The Wretched of the Earth*, 1963

Through this study and the process of data analysis, I have identified key themes emerging from the Miccosukee Tribe of Indians of Florida, the Gullah/Geechee Nation, and across the groups. I also recorded each group's perceptions of noneconomic climate loss and damage and the United States' response and responsibilities. I integrated these key themes across the groups and perceptions with the legal/political analysis of noneconomic climate L&D within a framework of Indigenous Ontology to produce a policy proposal.

4.1 Analysis of the Miccosukee Tribe of Indians of Florida

The governing body of the Miccosukee Tribe, the Business Council, did not approve my proposal to conduct interviews with members of the Tribe (Appendix D); however, they directed me to speak with the Tribe's Director of Water Resources, who agreed to participate in an interview with me. He is not a member of the Tribe; he is a

white-passing male with a background in the military, and his highest level of education is a Master's degree in Geology. He has worked as the Tribe's Director of Water Resources for about 32 years, and he reports directly to the Chairman, the Head of the Business Council, as he advises the Business Council on water-related issues affecting the Tribe and its over 300,000 acres of land in the Everglades. He described his job as "in the middles of everything," as all water-related decisions and management practices affect the urban settlers of Florida's coast *and* Tribe members.

The Director said that the Miccosukee Tribe hired him to help achieve their goal of a restored Everglades, and his job mainly deals with legal issues surrounding water resources. He views his job as working at the interface of the federal, state, and local agencies involved with Everglades restoration and spends a great deal of time in meetings with entities outside of the Tribe who affect the Tribe's water resources, such as the U.S. Army Corps of Engineers (USACE) and South Florida Water Management District (SFWMD). I traveled to the Miccosukee Tribe's Tamiami Trail Reservation to interview the Director of Water Resources in his office in a Tribal Government building. While he is an employee of and adviser to the Tribe regarding water resource issues, the Director emphasized that he does not speak on behalf of or for individual Tribal member's thoughts or opinions

Themes: Land Ownership, Everglades Restoration as Biocultural Conservation, and Legal issues

Three themes emerged from my interview with the Miccosukee Tribe's Director of Water Resources: land ownership, Everglades restoration as biocultural conservation, and legal issues.

Land Ownership

The Director of Water Resources described the current amount of land the Tribe owns as enough to live on in a historic sense, but he explained that the Tribe needs to acquire more land so they can benefit all of their members by giving them the "good life," which he elaborated on briefly as ownership of cars, houses, etc. The Tribe has been acquiring more land, but not for the purposes of inhabitation by their members—the Tribe has been buying land to protect endangered habitats.

The Tribe buys natural lands to protect them from development. Some land, such as areas suitable for gaming, provide a source of revenue/income for the Tribe, and they have bought some of this land to afford legal battles. The Director remarked, "These are not cheap battles." While the Tribe is pursuing land ownership as a means to accomplishing goals of environmental protection and to provide income, and they may acquire more land in the future to accommodate Tribe members' living needs, they are losing land mainly due to water management practices from Lake Okeechobee down through the Everglades that are not increasing the flow of freshwater south.

The Director explained that the flow of freshwater southward provides a buffer between the Everglades and the seawaters. Loss of land to flooding of seawaters, known as saltwater intrusion, has concerning outcomes, as the Miccosukee culture is

directly tied to the land. For example, Chickees, traditional homes built from palm fronds in the tree islands of the Everglades, are a very important aspect of Miccosukee culture. The director said, “They [Members of the Miccosukee Tribe] build Chickees on the tree islands, and that is their culture. Then, these Chickees get flooded. It’s hard to build a campfire underwater to cook your food.”

He further elaborated on the ties between the Tribe’s culture and land by discussing current threats to cultural practices from mismanagement of water flows, providing the example of growing corn as a part of the Tribe’s religious ceremony of the Green Corn Dance, saying:

“If you put your seed in the ground and then the Water Management District closes the [water management] gates and turns the pumps on, and the islands are under water, you can’t grow your corn...you can’t go onto the islands for your religious ceremonies, so all those things affect the Tribe’s culture—it’s their entire way of life.

Everglades Restoration as Biocultural Conservation

The Director expressed that Everglades restoration is the key to protecting the Tribe’s connection to the land. When asked what Everglades restoration means to the Tribe, he said, “Everglades restoration is all about getting more water into the Everglades to hold back seawater...to hold the saltwater interface back...this is about protecting our drinking water supply.” He elaborated that the goal was to restore the

Everglades to its state before we “messed up,” citing the importance of the quantity, quality, timing, and distribution of water in restoration management. Further, he referenced the Comprehensive Everglades Restoration Plan and its related restoration places, saying that all of the volumes of these plans stacked together would be many feet thick, and that each project takes decades. He said that one could spend weeks just combing through the information about Everglades restoration on the websites of the Federal Everglades Ecosystem Task Force, the USACE Jacksonville District, and the SFWMD.

When asked of the effects SLR driven by climate change has on the Tribe and the Everglades, the director said that SLR is mainly a “political argument” and that the sea level has always been changing with the Earth’s natural cycles—he claims what’s new is the “hysteria surrounding climate change.” Nevertheless, the Director identified projected SLR as a threat to the Tribes because the Everglades is the Tribe’s “whole way of life,” and restoring the Everglades is the goal of the Tribe. If sea levels rise, saltwater will break through the saltwater-freshwater interface to flood the Everglades, wreaking havoc on its ecology. Furthermore, it would make drinking water a lot more expensive, as processes such as reverse osmosis would be necessary to desalinize the water.

However, the Tribe is located in the heart of the Everglades on what the Director described as, “...a big reservoir; we’re sitting on a reservoir, so this is not likely to affect the Tribes...global warming and sea-level rise is not likely to affect us...the coastal areas, they’re going to get affected first. We’re sitting on a reservoir of freshwater here.”

This does not mean the Tribe does not care about the situation of the coastal areas, which are mainly urban settlements; the Director explained, “The Tribe has a responsibility to fix the water for everybody, not just Tribal members—for the public in general; they’ve always tried to do just that.” He further stated, “ All-in-all, the Tribe’s existence depends on a clean Everglades...if we fail at restoration, it impacts every aspect of the Tribe’s identity.”

Legal Issues

Throughout the conversation about Everglades restoration, the Director framed water as “a commodity”. This commodity has been subject to different legal agreements and disputes within the context of the Eastern United States’, and, subsequently, Florida’s, water laws based on “reasonable and beneficial, and highest and best, use of water.” The Director commented, “The Tribe has legal rights, and the public has legal rights; there may be some battles in the future. Out West, they’re already having water wars.”

He focused on water litigation, speaking of how the Seminole Tribe negotiated the Water Rights Compact with the State of Florida, which tried to define the Tribe’s water rights in terms of entitlement to a certain percentage of water based on the land they owned and the concept of irrigatable acreage. The Miccosukee Tribe considered this approach in 1988 and 1989, but ultimately decided that was not the best approach for them:

...because you're entitled to a certain percentage of the water basin, but if they make the diversion before it gets there to the basin, 15% of nothing is nothing...Plus, water quantity changes...It also required them [the Seminole Tribe of Florida] to notify the state every time they wanted to do something to their land or involving water, and the Tribe looked at that and said, "This water rights thing isn't good for us...What we're going to push for instead is a restored Everglades. What we want is restoration of the Everglades instead of a quantity of water." The Seminoles' goals are different than the Miccosukee's...They negotiated the quantity of water rights, we're negotiating a concept of restoration...there's a difference.

The Director also explained the legal issue of adhering to the Tribe's 10 parts per billion (10 ppb) of total phosphorus water pollution standard, and the 1988 lawsuit from the federal government on the State of Florida, of which the settlement required Florida to build stormwater treatment areas (STAs) to clean water as it flows south. The Director remarked upon the State adopting the 10 ppb of total phosphorus water quality standard, "After all these years, the State realized that was the correct number, and the state has adopted 10 as well—took them a long time to get there, but they did get there."

When asked if he saw a remedy for if the Federal or State government failed to uphold their duties to restore the Everglades and maintain its natural state, which inherently means preserving the Tribe, the Director said they have experienced this failure a couple of times. He shared the example of levees and flood control pumps,

saying, when it floods in Miami and West Palm Beach, “they [SFWMD] turn on the flood control pumps, and they store water on top of the Tribe’s land.” This greatly threatens the tree islands, from killing ground mammals such as racoons and mice, disrupting the entire ecological system, to threatening cultural practices of the Tribe, such as the building of Chickees and the planting of corn for the Green Corn Dance. To address this situation, the Tribe filed flooding lawsuits against the USACE and the SFWMD.

The Director shared another example of a lawsuit surrounding water mismanagement in the case of the Cape Sable seaside sparrow residing in the Everglades National Park and designated as an endangered species under the Endangered Species Act. He explained these birds require very dry conditions and have migrated to different areas, including Tribal land, due to manmade changes. One strategy for keeping the environments of the Cape Sable seaside sparrows dry is to stop the downward flow of water from reaching their environments. The flow of water is directed southward from Lake Okeechobee to Water Conservation Areas, then must pass through gates, known as S-12 Gates, to flow to Everglades National Park and downward to the Florida Bay. When the S-12 Gates are closed to create dry conditions for the sparrows, the water flow gets backed up in the Water Conservation Areas, which floods the Tribe’s tree islands. The Director remarked, “If they opened the gates, we could get some relief upstream. But they won’t open the gates because we’ve got an endangered bird down there...There’s another lawsuit.”

The Director views these examples of flooding as violations of the Tribe’s rights in order to benefit someone or something else, whether that’s:

...flood protection for urban areas or the protection of a single species. The Tribe doesn't believe in single-species management—we have 68 threatened and endangered species, and you're going to wreak devastation on all of these endangered species up here to protect one species of bird down there, and we don't, the Tribe doesn't see the logic in that, so we go to court to fight it.

Regarding legal issues in general, the Director brought up the responsibility of the federal government by the Federal Trust Doctrine to protect Tribes, along with the duty of the State government to uphold agreements. The State and Tribe's lease agreement ensures the preservation of natural lands for enjoyment by the public and the Tribe and ensures the proper management of resources, but the Director questions, "Proper management of resources for whom? You get into the specifics, and there's always room for augment." Fundamentally, legal issues aren't about the Tribe wanting to have litigation—"We keep having these problems where the Tribe's rights are violated, they get stepped on to benefit somebody or something else...it's just about them asking for respect and then having to show that there's consequences if they're not respected." The Tribe first looks for cooperation, and then, if their rights are violated, they'll go to court to protect their rights.

Perceptions of Noneconomic Climate Loss and Damage and the United States' Response and Responsibilities

When asked if there may be any way to compensate for cultural losses, the Director of Water Resources expressed that the people are the Everglades, and the Everglades are the people, as exemplified in the above discussion regarding flooding threatening the building of Chickees and growing corn for religious ceremonies. The Director said the Tribe has never looked for monetary compensation, but they could “...if you could put a value on all of that death and destruction, but we don’t ask for that—we ask for them to fix the Everglades...to mimic the natural flows...that’s what the Tribe has always been after.” When asked if the Tribe has every pursued compensation from the government or urban settlers for cultural loss, he reiterated, “They’ve never tried to have any compensation—again, what they’re asking for is a restored Everglades, because if the Everglades is restored, all of those things take care of themselves.” He was not familiar with the concept of a TRC, and he had no further comments on the idea.

4.2 Analysis of the Gullah/Geechee Nation

I recruited interview participants through a snowball approach, starting with an acquaintance from the University of Central Florida community who is a member of the Gullah/Geechee Nation. I further recruited participants onsite in South Carolina during participant observation activities. In collaboration with Queen Quet, I was able to organize participant observations during March, the Gullah/Geechee Month of Service-

Learning. From these participant observations, I was able to recruit interview participants and obtain a cultural document for analysis.

I interviewed 5 members of the Gullah/Geechee Nation; a brief description of each interviewee follows:

Interviewee A: male born in 1952; lifelong resident of the Sea Islands; works as a fisherman; I interviewed him in his bait shop.

Interviewee B: female born in 1996; lifelong resident of Charleston, SC; works at the Gullah Geechee Cultural Corridor Heritage Commission; I interviewed her in a family home while also interviewing Interviewee C.

Interviewee C: male born in 1955; born in and residing with family in Charleston, SC, at time of interview; had a career of service in the military; I interviewed him in a family home while interviewing Interviewee B.

Interviewee D: female native to and residing on family property in St. Helena Island, SC; serves in the Nation's governing body; I interviewed her through email correspondence, as approved by the UCF IRB, due to research constraints imposed by COVID-19.

Interviewee E: female born in 1982; native to and owns family property in Williamsburg County, SC; works as a lawyer; I interviewed her over the phone, as approved by the UCF IRB, due to research constraints imposed by COVID-19.

I analyzed the cultural anthology compiled by Queen Quet, *WEBE Gullah/Geechee: Cultural Capital and Collaboration Anthology*, as it was referenced by

Interviewee D when I asked questions regarding the standing of the Gullah/Geechee as an Indigenous People Group. This brought me back to the information I had gathered and recorded in my Literature Review related to the history and ontological condition of the Gullah/Geechee Nation (Chapter 2.3).

I was a participant observer at multiple events hosted by Queen Quet in observance of Gullah/Geechee's Month of Service-Learning throughout the month of March 2020. I attended the Gullah/Geechee Coastal Cultures Conference. The first half of the conference was held in meeting rooms at the St. Helena Public Library (SHPL). Researchers shared their projects with the entire group, projects including a citizen geographical information systems (GIS) project on sea-level rise and a project related to stormwater treatment issues in Jacksonville, Florida. The second half of the conference was hosted at the Queen's family compound. There, we learned about the history of her family, how they grow food on the land (which was used to make and feed us a delicious lunch), and the importance of the compound to Gullah/Geechee culture. Then, more researchers presented their collaborative research projects. The main focus of the conference was to showcase sustainable research collaborations between the Gullah/Geechee Nation and outside researchers.

I participated in the Gullah Roots Tour, a tour of St. Helena Island led by Queen Quet. The participants in this tour were about 30 students and a handful of professors from various universities. We visited historical places around the island, from the Queen's family compound to the SHPL. The major focus of this tour was delving into the

history on enslavement of Gullah/Geechee in the Sea Islands, with an emphasis on the relationship between enslavement and the development of Nation to its current state.

The evening of the tour, I attended the community celebration of the 10th Anniversary of the Gullah/Geechee Fishing Association (G/GFA), which was held in the community meeting room of the SHPL. During the event, Queen Quet premiered one part of her documentary “Gullah/Geechee Gwine Fishin” about the G/GFA. This movie and the following conversation focused on South Carolina’s natural resource management laws that are threatening the subsistence fishing culture of the Gullah/Geechee Nation (Chapter 2.3)

Lastly, I participated in a service-learning project with students from one of the colleges that participated in the Roots Tour. We helped with a roadside environmental cleanup along Ballpark Road, a road of significance to the Gullah/Geechee community in St. Helena Island managed by the Nation.

Themes: Property Rights and Biocultural Conservation

Interviews, document analysis, and participant observations from fieldwork produced two central themes: property rights and biocultural conservation.

Property Rights

As recorded in the literature review about the history and ontological condition of the Gullah/Geechee Nation, property rights are a main concern for the Nation. Members of the Nation face many threats to their property rights, from increased land taxes due to the gentrification of the Sea Islands and coastal waterways to legal issues surrounding “heirs property” (Chapter 2.3). Throughout my data analysis, this concern over property rights was pressing and central; Interviewee C remarked, “Once you give up rights...you’ve destroyed family chain.” This “family chain” refers to the intergenerational ownership of property through heirs property. While these issues continued to dominate the conversations, I found that framing the issue of loss of land in the context of sea-level rise shed a new light on participants’ perspectives.

My primary finding was that the participants viewed property rights as connected to water rights, as the ability of members to maintain their property is tied to their ability to maintain their cultural practices surrounding water. Interviewee A expressed that his people were fishing long before they were farming, implying that property rights and access to use of waterways is crucial to maintaining cultural land and practices centered around water, not just land. Further, Interviewee E explained that, “The Ocean has provided a link to where we came from...,” as the Gullah/Geechee arrived at their lands from West Africa through the Transatlantic Slave Trade. Interviewee C noted the importance of the Ocean, stating the Gullah/Geechee people came from across the Ocean and most still live next to the Ocean. He further expressed, “Water meant a lot to our people...for one thing, water was survival.”

I interpreted these insights as demonstrating that there is more to maintaining cultural lands and practices than owning property—having the right to use and manage the waterways is equally integral to preserving the culture, which tied into the other key theme emerging from analysis of data shared by participants from the Gullah/Geechee Nation, biocultural conservation.

Biocultural Conservation

The literature review of the historical and ontological conditions of the Gullah/Geechee Nation found a concern for self-determination of sustainable land use for cultural heritage that conserves the local ecology, which fits the definition of “biocultural conservation” (Chapter 2.3). My analysis of the data demonstrates this is a key theme emerging from participants’ perceptions of sea-level rise as a threat. Interviewee D identified the two main threats to the continuing of the Nation’s culture as “overbuilding on the shorelines and sea-level rise.”

The participants viewed sea-level rise as a threat to their culture, and they saw their ties to land and water as enmeshed with their culture. Interviewee A said about access to water, “I run a business...I depend on it to survive”. Interviewee D said that, if the Nation lost their land to sea-level rise, “This would mean that our culture would no longer exist because Gullah/Geechee citizens would be dispersed and no longer live in the environment where our culture thrives.” The participants linked this view of culture tied to land in their motivations to conserve land for the sake of its ecology and the

embeddedness of their culture in the ecology. These ideas were further discussed in the context of the participants' perceptions of the United States' response and responsibilities regarding this loss, which is discussed below.

Perceptions of Noneconomic Climate Loss and Damage and the United States' Response and Responsibilities

When discussing loss of land to sea-level rise, the conversation centered on the need to focus on continuing the culture. Interviewee B expressed the necessity for a just response to loss to address the need for resources to continue the culture, and Interviewee A said that a just response to loss would be for the people to be "displaced" somewhere near this area so they can continue their cultural practices and ways of life. Interviewee C emphasized that, "Retribution money can't buy everything," and there is a need for telling the "real story." He further expressed that, "Change has to take place in a hurry!"

Interviewee D gave the most specific idea for what the United States' responsibilities are and a just response would be:

I do believe that the federal government, the state governments, and county governments should compensate Gullah/Geechees for the illegal partition sales of the past and should definitely compensate us for putting our land in jeopardy by allowing the overbuilding into the shorelines which has exacerbated the rapid erosion of the coast... A just response would be to immediately prevent

additional building of more than single family homes on the Sea Islands. There should be a consistent boundary set through the four states as setbacks away from the ocean and the marsh in order to protect the estuaries, rivers, and the ocean.

Interviewee D also suggested that compensation for loss of land involve return of land to Gullah/Geechee people and money for a coastal environmental protection fund. She said the last step would be to support the Sea Island schools so that the Nation can best educate the youth to maintain cultural practices that reverse damages to the land.

The view of TRCs was generally favorable amongst interviewees. Interviewee E emphasized the need for restoration to address all the ways harm has been afflicted and “transparency about what happened” to acknowledge the wrongs of the past and hold actors accountable. Interviewees A and C expressed reservations about who would be in charge of distributing any benefits such a commission may provide. Interviewee D expressed concern regarding the concept of a TRC, saying, “Those commissions work against anything actually being done to heal communities and sustain cultures.” She said they would remove people from their homelands and document what was done to benefit the government with more documentation of the harm done, only for that documentation to be placed in the “Library of Congress” and other federal documents.

4.3 Themes Across Groups

When comparing the themes that emerged from data analysis of the Miccosukee Tribe and Gullah/Geechee Nation, there is a common concern surrounding water and its relation to property rights and ownership of cultural land to conserve the relationship between culture and ecology. This relationship can be understood as that between biocultural conservation and water and land ownership.

Water Rights, Land, and Biocultural Conservation

Across all participating groups, water rights and management are a specific concern amidst risks from rising seas flooding cultural lands. For the Miccosukee Tribe, water, specifically the flow of freshwater southwards across the Everglades, is key to maintaining the ecology of their “Mother.” Further, the water they have rights to is projected to be a highly sought-after resource as Florida’s water supply is threatened by saltwater intrusion. As water is the Gullah/Geechee Nation’s “bloodline,” it is central to their main concerns of property rights and biocultural conservation: Their access to livelihood from water is threatened by continued development and natural resource laws that ignore their needs as a Nation and cultural practices, which threatens their ability to own and maintain property as gentrification raises taxes.

Another theme across groups was witnessing environmental change through local knowledge of the flora and fauna populations tied to their livelihoods and cultural practices. For example, threats from flooding to the planting of corn by the Miccosukee Tribe and the acidification of waters due to climate change are threatening the fisheries

of the Sea Islands the Gullah/Geechee Nation maintain as a cultural practice and for livelihood. Both groups expressed the concern for loss of these animals, plants, and their changing ecology, especially in the context of losing their ability to practice their culture and ways of life.

CHAPTER 5: LEGAL/POLITICAL ANALYSIS AND POLICY PROPOSAL

Revolution is based on land. Land is the basis for all independence. Land is the basis of freedom, justice, and equality.

— Malcolm X, “Message to the Grass Roots,” 1963

Decolonization offers a different perspective to human and civil rights based approaches to justice, an unsettling one, rather than a complementary one. Decolonization is not an “and”. It is an elsewhere.

— Eve Tuck & K. Wayne Yang, “Decolonization is not a metaphor,” 2012

5.1 Legal/Political Analysis

Climate Loss and Damage as an International Human Rights Crisis for Indigenous People Groups

Due to the unbounded nature of greenhouse gases accumulating globally to drive climate change, it is particularly useful to view climate justice as an issue of international human rights (Tsosie, 2013, p. 250). Specifically relating to IPGs, climate change L&D is a threat to their fundamental right to self-determination. However, the crisis of pursuing climate justice for IPGs in this framework is that the legal structure provides no rights for the status of “victim” or “vulnerable population”. Therefore, there is no legal precedent regarding compensation for harms (p. 256).

Domestic Concerns and the Federal Trust Doctrine

In the United States, IPGs are recognized as sovereign only when they are federally recognized as American Indian Tribes. Even with this recognition, Tribal sovereignty is limited by the status of Tribes as “domestic-dependent nations” under the Federal Trust Doctrine. The laws and policies that have emerged at the state and federal levels from this dynamic have shaped the extent of Tribal governance and self-determination, including in environmental governance. The Federal Trust Doctrine implies a responsibility for the United States to compensate Tribes for L&D due to climate change and to relocate them. However, the domestic sovereignty framework that emerges is inadequate for dealing with climate change, as Tribal sovereignty is largely limited by the boundaries of reservations and membership—and climate change is an issue that crosses such boundaries (Tsosie, 2013, p. 239-240). Further, a glaring issue with the domestic sovereignty framework is its exclusion of rights to self-determination for IPGs in the United States not federally recognized as American Indian Tribes, such as Native Hawaiians or the Gullah/Geechee Nation. (p. 241-242). To overcome the inadequacies of the domestic sovereignty framework and address the international human rights crisis climate change presents, we need a new approach to climate justice for IPGs.

Grounding Climate Justice in Indigenous Ontology: Centering Decolonization

A new approach to climate justice for IPGs must be grounded in the self-determination of IPGs. To ground climate justice in this study's framework of Indigenous ontology, it is imperative to understand how climate justice for L&D relates to decolonization. Firstly, decolonization is not a metaphor: As Tuck & Yang argue, decolonization is a distinct concept, and not a metaphor for pursuing social justice or civil and human rights. Decolonization is the repatriation of land from settlers to IPGs (2012, 2). Therefore, climate justice is not necessarily decolonization—any act of climate justice that does not result in the repatriation of land from settlers to IPGs is not decolonization.

Efficacy of Truth and Reconciliation Commissions as Mechanisms for Climate Justice

To understand the efficacy of TRCs as mechanism for climate justice from a legal/political perspective, we must identify the standards for what outcome would be just. In the literature review, I addressed criticism of TRCs as a mechanism for climate justice from a legal perspective. Within this study's overarching framework of Indigenous ontology, it is imperative to investigate the efficacy of TRCs in relation to decolonization. The idea of "reconciliation" is concerning for building a concept of climate justice tied to decolonization.

Tuck & Yang argue that settlers can easily center concepts of "rights" and "reconciliation" as solutions to problems because these approaches seem to be focused on justice while distracting from more fundamental issues such as the inefficacy of a rights-based framework: They remark, "The desire to reconcile is just as relentless as

the desire to disappear the Native.” (2012, p. 9). It could be useful to start from place such as TRCs to emplace the injustices in the language of international human rights law, but there the only way to truly pursue climate justice related to decolonization is to develop an ethic of incommensurability, which requires relinquishing the future of the settler state (p. 35). Tuck and Yang point out that facing the realities of what is irreconcilable and incommensurable is an important step in acting in solidarity (p. 4).

5.2 Policy Proposal

Fieldwork and the analysis of themes provides reasoning for a policy proposal, beginning with the problem that mean sea level is projected to rise 0.3-1 meter higher across U.S. coasts than the mean global sea-level rise of 2.0-2.7 meters by 2100 (Sweet, 2017). Sea-level rise, driven by climate change, poses a concentrated, urgent threat to Native Americans, a particularly vulnerable minority group. Sea-level rise threatens Tribes' health, economic development, social stability, and cultural values (Norton-Smith, 2016; Weinhold, 2010), and the resulting loss of traditional lands threatens the cultural practices and ties to heritage that provide ontological grounding for many Native Peoples. 5.2 million people identified as American Indian and Alaska Native in the 2010 United States Census, and there are 573 federally-recognized tribes (Norris, 2012). The Federal Trust Doctrine implies a responsibility for federal policy to aid Tribes by compensating them for impacts of sea-level rise (Magni, 2017; Tsosie, 2013). While the government has already developed plans to relocate some Native

American communities displaced by sea-level rise, these plans do not compensate for the irrevocable loss of heritage land washed away (Keene, 2017; Maldonado et al., 2013; Spear, 2019). Due to the unquantifiable nature of the damage to Native American communities who lose their lands to sea-level rise, a process of compensation must transcend relocation measures and monetary transactions. To combat federal aid programming that perpetuates the social, legal, and cultural disenfranchisement of Native Americans, legislation for compensation must endorse and empower Tribes' autonomy by including the insights of Tribal and community stakeholders in a meaningful manner (Magni, 2017; Norton-Smith, 2016).

When placed in this context, loss of heritage land washed out by sea-level rise is an international human rights crisis (Tsosie, 2013). In this framework, those responsible for climate change have a duty surpassing the relocation of displaced communities. It is critical for countries such as the United States to recognize their responsibilities and seek reconciliation with those who are not responsible for but suffer from global climate change. This can be accomplished through the establishment of a Truth and Reconciliation Commission (Avruch, 2007) to investigate the United States' violations of Native Americans' human rights through its contributions to global climate change. The Truth and Reconciliation Commission would create a procedure for exchange between the U.S. government and Tribes that would include the governmental recognition and claiming of responsibility for violating the human rights of Tribes, followed by dialogue with harmed Tribes and a peaceful reconciliation. An endowment of funds managed by the Commission and Tribe members would provide support for Tribes' establishment after relocation to combat the deleterious mental, physical, and social health effects

often resulting from displacement and relocation. The funds would also support the construction of cultural centers and forms of biocultural conservation of Tribes' histories. The Commission would direct exchanges to produce policy guided by the results of dialogue, emphasizing the contributions of those harmed and implementation of accountability measures for future harms.

Of course, there are some major obstacles to this policy proposal. The proposed solution faces the fundamental obstacle of ideologically driven denial of global climate change and ensuing inaction by a significant fraction of government officials (Dunlap & McCright, 2003; Samet, 2018). However, the reality of sea-level rise as a prevailing threat is evident, regardless of the current political situation, and demands action (Sweet, 2017). The proposed solution is also challenged by the enduring historical and modern limitations to Tribal rights to sovereignty and autonomy due to their status as "domestic-dependent nations" (Parker, 2018; Tsosie, 2013). Processes of Truth and Reconciliation will give the voices of Native Americans a platform, promoting perspectives that can broaden our notions of citizenship and diversify existing frameworks for legitimizing the rights and autonomy of Native Peoples. However, it is extremely important to recognize the shortcomings of TRCs from the perspective of decolonization and an ethic of incommensurability, as an emphasis on reconciliation provides an easy "move to innocence" for settlers, as they can "reconcile" with IPGs without repatriating land, the true process of decolonization. Ultimately, the actions, or inaction, of the United States in addressing the impacts of climate change on the rights and empowerment of Native Americans will set precedents for the global community's proceedings on climate justice.

CHAPTER 6: DISCUSSION AND REFLECTION

The Anthropocene might seem to offer a dystopic future that laments the end of the world, but imperialism and ongoing (settler) colonialisms have been ending worlds for as long as they have been in existence. The Anthropocene as a politically infused geology and scientific/popular discourse is just now noticing the extinction it has chosen to continually overlook in the making of its modernity and freedom...I want to challenge the racial blindness of the Anthropocene as a willful blindness that permeates its comfortable suppositions and its imaginaries of the planetary—imaginaries that constitute its geographies of concern and attribution.

— Kathryn Yusoff, *A Billion Black Anthropocenes or None*, 2018

6.1 Discussion of Study Findings

The findings of this study emphasize the centrality of land to climate justice for Native Americans and Indigenous Peoples. When exploring sensitive issues of L&D, the threat of land dispossession was a central theme, both theoretically and from the analysis of fieldwork data. The emergent themes of this study are clear, and I hope I have demonstrated this study was conducted in a methodologically sound manner. Now, I would like to discuss some limitations to my study.

One clear limitation of my study was the number of participants I was able to recruit and interview. Regarding my collaboration with the Miccosukee Tribe, I was only able to speak with an employee of the Tribe who is not a member but has specialized knowledge of the Tribe's relationship with water, the Everglades, and SLR. Regarding my collaboration with the Gullah/Geechee Nation, I was able to interview five

participants. Methodologically, my goal was never to survey a representative swath of Nation members; my goal was to snowball interviews until I reached theoretical saturation, when participants expressed no distinctly new information or ideas. I did not achieve this goal either, as each interview brought distinctly new information and ideas, but I hope to in future iterations of this study.

Often times, conducting this study's legal/political analysis felt like quite the undertaking—there are so many different factors influencing climate justice, especially in the specific context I focused upon of L&D, Native American law, and human rights law for IPGs. Despite all of the information I gathered, I was not able to connect a significant number of these topics to my analysis, as I would not have been able to treat them with the level of rigor and nuance I found they required. However, I was able to give a broad overview and develop a notion of climate justice that tied together Indigenous rights and climate L&D in a framework of Indigenous ontology. I'm greatly indebted to the work of Rebecca Tsosie for providing me with a roadmap for exploring and logically communicating connections between these ideas. Thus, while I felt the legal/political analysis was lacking, I recognize a proper treatment of the topic could probably fill many theses recording the nuances of the connections between these legal and political matters. For the purposes of this iteration of the study, I believe the legal/political analysis was adequate.

A few glaring inadequacies of the legal/political analysis that were less of a function of scope and more of lack of understanding on my part are: the need for a better discussion of the role of the Federal Trust Doctrine in domestic climate justice

and a better discussion of the potential incommensurabilities of declaring L&D of IPGs as a human rights crisis that also accounts for the shortcomings of the international human rights framework in pursuing decolonization. As this study has referenced multiple times, the work of Tuck & Yang argues decolonization is not a different flavor or extension of human rights concerns—it is a distinct process of repatriating land to IPGs.

As I conducted the legal/political analysis, I often felt conflicted about presenting the case of climate L&D as a human rights crisis while also presenting the emphasis of Indigenous ontology on a responsibility-centric, as opposed to rights-centric, society. Tsosie's work helped me to understand that it is valid to communicate climate L&D as an international human rights crisis to both sound an alarm and catalyze conversations on the failures and incommensurability of a rights-based framework when grounding climate justice in Indigenous ontology. However, I do believe it is imperative to make leading to these discussions a clear goal.

This study's policy proposal has been around for quite a bit of time—in fact, it is the original document upon which I based, essentially, this entire study. On the basis of how long this policy proposal has been around, it's interesting note how it has not change in some ways, and how, in other respects, it has changed a great deal to reflect the evolution of the study and its findings. Originally, in February 2019, the policy proposal was in a much more formal format and was addressed to Tara Katuk Mac Lean Sweeney, the Assistant Secretary-Indian Affairs, of the Bureau of Indian Affairs in the U.S. Department of the Interior. At the time, this seemed the appropriate person to whom I wished to present the study's findings and ideas. However, as I developed this

study—nailing down some of the theoretical aspects, completing my fieldwork, conducting the legal/political analysis, and combining the fieldwork and legal/political analysis—I became less and less certain about to whom I should address the proposal and what level of governance—local, state, or federal—would best enact the policy changes this study proposes. Thus, while it may seem unsatisfactory, at this phase of my research, it remains inconclusive to whom the policy proposal is addressed and at which levels of government it would be most effective.

On one hand, a federal level policy decision is useful for cultural preservation as demonstrated by the Miccosukee Tribe's ability to sue the State of Florida under the Clean Water Act for the protection of the future of the Everglades and the Tribe. On the other hand, the Gullah/Geechee Nation has received cultural preservation support from the National Park Service in the Department of the Interior; however, that doesn't solve the challenges to their autonomy and cultural preservation they face on a local and state level, such as when the South Carolina Department of Natural Resources doesn't respect the Nation's needs as subsistence fishers. Another example is the threat of annihilation the Nation faces from amenity migrants and "ecotourism" developers who buy members of the Nation out of their heritage land, disrupt local ecosystems, and use the Gullah/Geechee Nation as mascots for profit and gain.

Future iterations of the legal/political analysis and policy proposal would benefit from outlining the opportunities and constraints to presenting this policy proposal at different levels of government and how that would affect the outcomes of various issues at play with the Tribes and Nation. I suspect each Tribe and Nation will be best served

at different governance levels due to the specific landscapes, seascapes, and governance structures tied together in their social-ecological systems.

6.2 Conducting Undergraduate Political Ecology Research

I stumbled upon the field of political ecology in both a very planned and unplanned manner. I had spent my first two years at UCF conducting research in the biophysical sciences, specifically botany and coastal geoscience/paleoclimatology, and I knew I wanted to try out research related to environmental policy. I wanted to join Dr. Jacques' Political Ecology Lab, so I took his Honors Sustainability lecture during the Fall 2018 semester as preparation—that all was planned. However, I never anticipated how much more than “environmental policy” I was about to learn or how I would grow to deeply enjoy the challenge of political ecology as something to learn and do.

Political ecology has many definitions and a solid body of literature surrounding its existence; however, as this reflection is about what I'm thinking and come to know, I'll give you my definition: political ecology is a version of political economy that emplaces analyses of power flows and structures in space—specifically, the environment. To simplify: political ecology calls out misuse of power (the world's B.S.) as it relates to the ecological systems in which all human and nonhuman entities are embedded.

Political ecology reminds me a great deal of one of my favorite stories as a child, *The Wizard of Oz* books and movie—specifically, I am reminded of the feeling of

simultaneous wonder and disenchantment that comes when Toto pulls back the curtain on the Great Oz, to reveal an ordinary man hiding with a very intricate mess of machinery. This process of “pulling back the curtain” to see what forces of power are at play and driving a narrative serves a fair dose of disenchantment—but I find that is always met with a heaping of wonder. I think sometimes I’m afraid that by engaging with others’ ideas in the form of critical scholarship I may become disenchanted with some of the things I love. Sometimes this sounds great—I’d love to “grow beyond” where I am currently in so many aspects of my life and scholarship; but sometimes this sounds very bad, as though maybe I’ll slowly morph into a disgruntled automaton parroting others’ ideas, so out of touch with myself and the concerns that drew me to critical exploration in the first place. Thus far, I’m happy to say, I have not found this to be true: I have found that engaging with critical scholarship sharpens my experiences, and the development of my “mind” does not mean the stripping away of my being or curiosity about that which I love.

I have learned a great deal by conducting political ecology research. Most markedly, I’ve learned to fail and persist, as the scholarly process is iterative, and the road to “success” is more about how hard one works than how talented one is. Another important lesson I’ve learned is that there is a difference as a scholar in identifying what is “relevant” as opposed to what is “representative”. As I suspect is the same with many drawn to research, I see connections between essentially everything; therefore, the idea of drawing out what is “relevant” from the world is problematic, as essentially everything is, or could be, “relevant” in some shape or form to a phenomena. Learning to, instead, view my work as an intense process of weighing and determining what is representative

to consider and report from the world not only fits better cognitively but practically as a mode for conducting research.

6.3 Conducting Research with Indigenous People Groups

Throughout this project, I have been privileged to collaborate with Native American Tribes and Indigenous Nations living in the geographical “Southeastern United States”. I have tried my best to recognize my privileges and biases and to foreground the Indigenous voices central to this work; however, I have inevitably failed. For those times of failure, for all of my moves to innocence, including hollow perpetuations of “reconciliation,” I am sorry. I know better, and I will work to be and do better. By conducting this research, I’ve learned on a deeply personal level what it means to do better—one aspect of this is actively recognizing the opportunities each day brings to learn and do better.

By conducting this research project, I have learned that flexibility and adaptability are key traits for research collaborations with IPGs. I found that flexibility and adaptability made me more open to genuinely understanding the research participants with whom I collaborated for this study. As I learned to be more flexible and adaptable, and I actively recognized that my priorities and personal timeline are not all the central concern in this collaborative research project, I became more sensitive to how much I needed to decentralize myself in the process of getting to know my research collaborators.

When I began this project, I made an effort to approach building relationships with research participants with an open mind and from a place of respect. This was my first time conducting qualitative research with cultural groups, and I wanted to ensure I was conducting research ethically and collaborating to build something all participants could be proud of and feel is representative of our efforts and experiences. Taking this approach to my study, which was shaped and informed by my peers and mentors, was very beneficial. However, this approach did not completely prepare me for how my conceptions of my participants would be changed or how challenging collaborative research can sometimes be—and I believe that is alright.

At least in my experience, one cannot completely anticipate what will happen or challenges that may arise throughout the process of collaboration or in the field, and there is a certain degree of flexibility and adaptability necessary for facing such challenges ethically and collaboratively. There are clear needs for logistical flexibility and adaptability, which I experienced during fieldwork in South Carolina, where my schedule was built around the Gullah/Geechee Service-Learning Month activities organized by Queen Quet and whatever opportunities arose to visit interview participants in their work spaces and homes. I found there are also needs for larger-scale logistical flexibility and adaptability when planning and executing a research project with IPGs.

In my case, I collaborated with three separate cultural groups, each with different governing bodies, hierarchies, and institutions regarding how they deal with outsiders, especially researchers. As I expressed earlier, my approach to forming relationships

with these groups was to build collaborative relationships with each entity that emphasized an utmost respect for their decisions about and timelines for collaborating with me on this project, an approach I maintained throughout the project. I learned that, even though I had anticipated challenges, I had to be willing to adapt to changes in my research plan and execution.

One situation involving large-scale research design and execution changes involved shifting the organizing of focus groups with the Seminole Tribe planned for the summer of 2019 to the summer of 2020 or later due to the timeline from the Seminole Tribe THPO for approving my research permit. The process of permit approval was understandably lengthy due to the near-ethnographical nature of my research and a history of malpractice by ethnographic researchers who did not respect the Tribe. Another situation that required adapting my research plan

Overall, I learned that being adaptive, flexible, and respectful (or, at least, trying to be and recognizing and learning from situations I could have handled better) was a great way to “put my money where my mouth was” as a researcher in upholding the participants’ rights to self-determination in practice, not just as an ideal. Doing this ought to be a granted process in research; however, I found/find it involves deconstructing Western-scientific approaches to research and cultural values I have been taught directly and indirectly since I was a child.

I refrain from identifying this process as a “decolonization” of my research approach, as I am not certain this shift in my paradigm of approaching social science research is about decolonization as much as it is about a research approach that

upholds civil and human rights; as Tuck and Yang argue, there is a difference between social justice initiatives and the process of decolonization that dismantles settler colonialism (2012, p. 2-3). Further—and more fundamentally—through this study, I set out to ground my methodology in the ethics of research collaboration; I did not want to conduct extractive research. Did I actually participate in collaborative research? Did I truly center the perspectives of those oppressed? Or did I just repackage things nicely, yet perpetuate injustices? These are complex topics I must explore through personal reflection long after this iteration of the study is completed. However, ultimately, it's about how my collaborators felt and what this experience was to and for them. The process of reviewing this study collaboratively before submitting it for publication as a completed thesis has helped to further our dialogue about and reflection upon this work, and I look forward to where our collaboration will take us; I am ready to continue unpacking the nuances of our collaboration and to reflect upon my role in this work.

CHAPTER 7: CONCLUSIONS AND FUTURE WORK

Decolonization, which sets out to change the order of the world, is, obviously, a program of complete disorder. But it cannot come as a result of magical practices, nor of a natural shock, nor of a friendly understanding. Decolonization, as we know, is a historical process: that is to say it cannot be understood, it cannot become intelligible nor clear to itself except in the exact measure that we can discern the movements which give it historical form and content.

-Franz Fanon, *The Wretched of the Earth*, 1963

7.1 Future Work

The findings of this study suggest future work in both its fieldwork and policy analysis and proposal elements to build upon and explore emergent theories—in fact, there are numerous iterations of future, and further, work as offshoots from this study due to its multifaceted, interdisciplinary nature. This study combined insights and perspectives from many fields—many of these fields are already connected—anthropology, political ecology, public policy, ethics of climate change, international human rights law, amongst others. As with any research, the possibilities for further inquiry and connection are virtually endless, and I wish to note this is not an exhaustive list of avenues I plan to further explore or into which I hope to branch off.

Fieldwork

I have been establishing a research relationship with the Seminole Tribe of Florida through their THPO since May 2019; I am working with the Tribe's Oral Historian and THPO to organize focus groups with members of the Tribe centered on resilience to SLR resulting from climate change. I am performing this research through the methodology of action research, as I am developing the study and its results in collaboration with and service to the Seminole Tribe (Lingard, Albert, & Levinson, 2008, p. 461). Our work will, hopefully, result in Climate Town Halls to create a space for Tribe Members to discuss and share their perceptions of climate change. Further, the emergent theory of this future work may bolster or challenge the theories built through this study.

Legal/Political Analysis and Policy Proposal

The emergent theories from this study give a clearer direction of where to take further iterations of the legal/political analysis of climate justice for Native Peoples and Indigenous Nations in the Southeastern United States as sea levels rise. Specifically, a focused analysis of water rights as property rights in an Indigenous framework would be beneficial, as demonstrated by the theme across all participating groups of the relationship between water and maintaining rights to cultural lands for conservation of culture and the land's ecology. For the Miccosukee Tribe, the water they have rights to is projected to be a highly sought-after resource as Florida's water supply is threatened by saltwater intrusion. For the Gullah/Geechee Nation, their access to livelihood from

water is threatened by continued development and natural resource laws that ignore their needs as a Nation. Across all participating groups, water rights, including managing water, are a concern when rising seas flood the land that ties them to the world.

7.2 Conclusions

Through this study, I investigated the noneconomic dimensions of L&D of cultural land to sea-level rise driven by climate change, as experienced by Native Americans and Indigenous Nations of the Southeastern United States. I investigated the perceptions of members of the Miccosukee Tribe of Indians of Florida and Gullah/Geechee Nation of SLR and TRCs as a mechanism NEL&D compensation in the context of climate justice. I addressed the research question by employing the method of interviews, document collecting, and participant observation, and I analyzed collected data through the technique of CCA, with my analysis informed by the reflexive nature of GT.

The key theme that emerged from analysis of data from the Miccosukee Tribe was of concern for the interplay between legal issues, land ownership, and Everglades restoration. The key theme that emerged from analysis of data from the Gullah/Geechee Nation was threats to property rights and biocultural conservation. Across both groups, the key theme was of the relationship between water rights and concern for establishing and maintaining rights to cultural lands for conservation of

culture and the land's ecology. These findings demonstrate the centrality of property and water rights to the participants' experiences and the need for any reparative policy to meaningfully address threats to property and water rights.

The Miccosukee Tribe of Indians of Florida and Gullah/Geechee Nation have persisted amidst forces of imperialism and colonialism that have systematically attempted to erase them and push down their voices—Their resilience is deep-rooted and growing, and I believe it will continue to do so, even as they face rising waters.

APPENDIX A:
IRB LETTER OF APPROVAL



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351

IRB00001138

Office of Research

12201 Research Parkway

Orlando, FL 32826-3246

EXEMPTION DETERMINATION

December 20, 2019

Dear Peter Jacques:

On 12/20/2019, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Exempt Category
Title:	Sea-Level Rise and Climate Justice for Native Americans: An Analysis of the United States' Response and Responsibilities
Investigator:	Peter Jacques
IRB ID:	STUDY00000401
Funding:	None
Grant ID:	None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kamille C. Birkbeck

Kamille Birkbeck
Designated Reviewer

APPENDIX B:
PARTICIPANT CONSENT FORM



UNIVERSITY OF
CENTRAL FLORIDA

EXPLANATION OF RESEARCH

Title of Project: Sea-Level Rise and Climate Justice for Native Americans: An Analysis of the United States' Response and Responsibilities

Principal Investigator: Dr. Peter J. Jacques

Other Investigators: Sarah Swiersz

You are being invited to take part in a research study. Whether you take part is up to you, though you must be 18 years of age or older, and be a member of the Seminole, and/or a member of the Gullah/Geechee, and/or the Miccosukee Tribe's Water Resources Director to take part in this study. You are being contacted because an acquaintance of yours referred us to you.

The purpose of this research is to better understand the threat of sea-level rise to coastal Native American Tribes.

Participants will take part in either a focus-group or individual interview about the study topic. The focus-group interviews are audio recorded; the individual interviews can be conducted without audio recording upon participant request. Discuss this with the researcher or a research team member. The interviews will take place in a private location mutually agreed upon between the research team and participant, where the interview conversation cannot be easily observed or overheard. Seminole focus-group and individual interviews conducted with members of the Seminole Tribe of Florida will include the presence of the Seminole Tribe of Florida's Oral Historian.

The time needed to participate in a focus group interview is about 60 minutes. The time needed to participate in an individual interview is 30-60 minutes.

Audio recordings will be stored on a password-protected laptop during transcription, which will occur within 1 month of each interview; transcriptions will be kept in the PI's locked office for 5 years, but the audio recordings will be destroyed after they are transcribed. The recordings will not include any identifiable information beyond your voice.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, please contact: Peter Jacques, Professor, School of Politics, Security, and International Affairs, College of Sciences, University of Central Florida, at (407) 823-6773 or by email at Peter.Jacques@ucf.edu.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

APPENDIX C:
SEMINOLE TRIBE OF FLORIDA RESEARCH PERMIT

Permittee: University of Central Florida
Permittee Agent: Sarah Swiersz
Project Description: Sea-Level Rise and Climate Justice for Native Americans
Authorized Activities: Conduct research amongst Tribal Members to determine the impact of sea-level rise and inland flooding caused by climate change, including loss of heritage, land, and property.
Project Location: Tribal Wide
Date of Issuance: November 6, 2019
Permit Duration: One Year
Date of Expiration: November 5, 2020

This Permit is issued pursuant to Application No: 2019-180, dated November 6, 2019. This Permit is issued under the provisions of Seminole Tribe of Florida Ordinance C-02-14, Cultural Resource Ordinance (“CRO”), and, to the extent they are relevant, the agreements with the United States National Park Service and the Advisory Council on Historic Preservation.

All activities authorized by this Permit must be implemented as set forth in this Permit, in compliance with the CRO, and in a manner respectful of the Seminole Tribe of Florida’s culture. All information related to this Permit is by this reference incorporated herein, regardless of attachment hereto.

All terms contained in this permit have the meanings given to them in the CRO except that references to “cultural resources” shall, herein refer collectively to “cultural resources” and “historic properties.” Where a term is not defined in the CRO, the term will have its ordinary meaning. This permit shall be subject to the General and Special Conditions below.

GENERAL CONDITIONS

1. All authorized activities must be completed on or before the expiration of this Permit, unless otherwise provided for herein. Any activities authorized by this Permit that will occur after expiration must be authorized by a renewal of this Permit or by a separate permit issued by the THPO.
2. All activities authorized by this Permit must be implemented as set forth in this Permit and all of its attachments, in compliance with the CRO, and in a manner respectful of the Seminole Tribe of Florida’s culture. The THPO reserves the right to require additional measures to insure that violations to the CRO do not occur during the authorized activities. This permit does not relieve the Permittee’s obligation to obtain any clearances, authorizations, or other permits, as may be required under Federal, State, or Tribal law.
3. This Permit is not transferable or assignable to any person and only those specifically authorized by this Permit may conduct the authorized activities. The THPO reserves the right to disallow a person/entity from conducting the authorized activities with or on behalf of the Permittee.
4. The Permittee must provide a copy of this Permit and all of its attachments to all persons, agents, employees, contractors, sub-contractors, and similar persons conducting activities authorized by this Permit prior to commencement of the authorized activities. Further, the Permittee is responsible for

ensuring that any person/entity conducting activities authorized by this Permit adhere to this Permit and are aware of, including but not limited to, the location of areas that are to be avoided due to the presence of cultural resources and the conditions concerning control and possession of cultural resources.

5. The Permittee must have and maintain any and all necessary insurance policies. The Permittee is also responsible for ensuring that any person/entity conducting activities authorized by this Permit has and maintains any and all necessary insurance policies. All policies must be effective for the duration of the activities authorized by this Permit.
6. The Permittee, and any person conducting authorized activities on behalf of the Permittee, will keep a copy of this Permit with them while conducting the activities authorized by this Permit.
7. Within thirty (30) days prior to commencement of any activities authorized by this Permit, the Permittee must notify the THPO in writing of the intent to commence such authorized activities.
8. Within thirty (30) days after completion of any activities authorized by this Permit, the Permittee must notify the THPO in writing of the completion.
9. When duration of any activities authorized by this Permit will exceed one year, or the commencement of any activities authorized by this Permit will not begin for more than one year from the date of issuance of this Permit, the Permittee must submit a status report to the THPO on an annual basis, the first status report to be due one year from the date of issuance of this Permit.
10. This Permit is issued based on the Permittee's submitted information. The Permittee must immediately notify the THPO in writing of any previously submitted information that is later discovered to be inaccurate, if hazardous conditions are encountered, or if there are any changes to the authorized activities or project location, including changes required by any office, agency, or department of the Seminole Tribe of Florida. The Permittee must receive written authorization to proceed from the THPO prior to implementing any changes. If the corrections or changes would result in unacceptable adverse impacts to the cultural resources on or off the project location, the THPO reserves the right to modify, suspend, or revoke this Permit. Modification, suspension, or revocation of this Permit must be done consistent with the CRO.
11. If any unacceptable adverse impacts to cultural resources on or off the project location occur as a result of the carrying out of authorized activities, the THPO will require the Permittee to provide appropriate remediation and/or mitigation. The occurrence of unacceptable adverse impacts is sufficient grounds for the THPO to revoke, suspend, or modify this Permit. Modification, suspension, or revocation of this Permit must be done consistent with the CRO.
12. Any cultural resources advertently or inadvertently discovered during the course of the authorized activities are the property of the Seminole Tribe of Florida. The Permittee will immediately cease all work, implement measures to prevent any further disturbance to the cultural resources, and notify the THPO within twenty-four (24) hours of such discovery. The THPO reserves the right to require additional protection measures, if such measures are shown to be necessary to protect cultural resources. Upon discovery, all possession and control of said cultural resources will be with the Seminole Tribe of Florida via the THPO, except as immediately necessary for the Permittee to protect the cultural resources in a manner consistent with this Permit and the CRO. Authorized activities may not resume without written authorization from the THPO.
13. The Permittee agrees that all information concerning cultural resources on or off the project location associated with the activities authorized by this Permit is culturally sensitive and confidential. The Permittee agrees to not share such information with any person that is not authorized under this Permit and/or the CRO to be privy to said information.

14. The Permittee acknowledges that activities relating to cultural resources, other than those authorized by this Permit, including but not limited to data collection, must not occur without prior written approval from the THPO consistent with the CRO.
15. At no time will the Permittee conduct, or allow to be conducted, activities that disturb land, remove cultural resources, or are otherwise intrusive, except as authorized by this Permit.
16. The THPO, and its agents, reserve the right to review any information (including, but not limited to, data, audio and video recordings, writings, maps, notes, sketches, drawings, reports, graphs, and photographs) gathered or produced as a result of the authorized activities at any time during the duration of this Permit, and may require the Permittee to provide copies or originals of any such information. The THPO will be provided the opportunity to review all information gathered or produced before the Permittee publishes, or otherwise makes available, such information to any entity or person outside of the Seminole Tribe of Florida. The Permittee acknowledges and agrees that no information related to the activities authorized by this Permit may be released outside of the Seminole Tribe of Florida without prior written approval from the THPO and/or the Tribal Council of the Seminole Tribe of Florida. Any publication or dissemination in any manner must acknowledge that the Seminole Tribe of Florida authorized the gathering, production, and/or publishing of information.
17. Unless otherwise provided by this Permit, this Permit is not exclusive in character and shall not limit the ability of the THPO to conduct or authorize similar authorized activities for any purpose.
18. The THPO, and its agents, have permission to enter the project location for purposes of inspection, marking protected areas, or conducting other THPO related duties.
19. The Permittee agrees to grant access to Seminole Tribe of Florida Tribal members to the project location for purposes of collecting medicinal plants prior to commencement of any activities authorized by this Permit.
20. By accepting this Permit, the Permittee acknowledges this Permit is evidence that the Permittee has consented to the jurisdiction of the Seminole Tribe of Florida.
21. The Permittee must hold and save the THPO and the Seminole Tribe of Florida harmless from any and all damages, claims, or liabilities which may arise from the project and authorized activities or abandonment thereof.
22. The Permittee shall not be released from the requirements of this Permit until all obligations have been satisfied, even after the expiration of this Permit.
23. Any communications regarding this Permit must reference the Permit number. Written communications may include electronic mail.

SPECIAL CONDITIONS

24. [to be added from the master list of special conditions based on the particular project]

NOTICE OF RIGHTS

Unless otherwise provided for by Seminole Tribe of Florida Ordinance C-02-14, Cultural Resource Ordinance ("CRO"), any person whose interests are substantially affected by any decision, determination, action (including the issuance of permits), or enforcement action (including the imposition of administrative remedies) under the CRO may request an administrative hearing with thirty (30) days after the receipt of said decision, determination, action or enforcement action or receipt of a Notice of Violation, Cease and Desist Order, or Citation under the CRO. All requests for an administrative hearing must be timely filed by certified mail within the Seminole Tribe of Florida Tribal Historic Preservation Office ("THPO") and the Seminole Tribe of Florida Office of the General Counsel ("General Counsel").

*Tribal Historic Preservation Office
30290 Josie Billie Highway
PMB 1004
Clewiston, Florida 33440*

*Seminole Tribe of Florida
Office of the General Counsel Office
6300 Stirling Road
Hollywood, Florida 33024*

All requests for an administrative hearing must comply with the requirements of the CRO and implementing Administrative Procedures, which are available by request from the THPO or the General Counsel. For purposes of computing time, the day of the triggering act shall not be included. Further, the last day of the prescribed period (30 days) shall be included unless it is a Saturday or Sunday, or a designated Seminole Tribe of Florida holiday or other official closure of the Seminole Tribe of Florida government offices, in which event the period shall be extended to the next business day. Tribal holidays are those designated by the Seminole Tribe for closure of the Seminole Tribe's government offices and as published on the Tribal Historic Preservation Office website, www.stofthpo.com.

All persons waive the right to a hearing or any other legal remedy for failure to timely request an administrative hearing under the CRO. All administrative review and hearings must be exhausted before any person subject to the Seminole Tribe of Florida's jurisdiction can file a legal action in a civil court of competent jurisdiction. Failure to initiate an administrative review under the CRO will act as a waiver of any rights to file an action in any court of competent jurisdiction.

Any enrolled member of the Seminole Tribe of Florida whose interests are substantially affected may, in lieu of an administrative hearing under the CRO, request that the matter in question be decided by a traditional community-based decision-making process consistent with the Seminole Tribe's traditions. Such requests will be honored at the discretion of the Tribal Council of the Seminole Tribe of Florida. Decisions from a traditional community-based decision-making process are final and cannot be appealed nor can an administrative hearing be initiated. Any person requesting a traditional community-based decision-making process waives all rights to file an action in or appeal to any court of competent jurisdiction and agrees to be bound by the decision resulting from the traditional community-based decision making process.

APPENDIX D:
RESEARCH REQUEST RESPONSE FROM THE MICCOSUKEE TRIBE
OF INDIANS OF FLORIDA BUSINESS COUNCIL



Miccosukee Tribe of Indians of Florida

Business Council Members

Billy Cypress, Chairman

Roy Cypress Jr., Assistant Chairman
Jerry L. Cypress, Treasurer

Talbert Cypress, Secretary
Petties Osceola Jr., Lawmaker

January 10, 2020

Ms. Sarah Swiersz
16940 Colony Lakes Blvd.
Ft. Myers, FL 33908

Dear Ms. Swiersz,

We are in receipt of your letter dated December 16, 2019. We appreciate your interest in this important issue however, after careful review of your request, unfortunately we have to decline.

We wish you good luck in defending your thesis and also with your studies at the University of Central Florida.

Sincerely,

Billy Cypress
Chairman

Encl.

c.c. Business Council
Evelyn Cypress, Tribal Administration Coordinator

APPENDIX E:
QUESTIONNAIRE FOR MICCOSUKEE TRIBE OF INDIANS OF FLORIDA
WATER RESOURCES DIRECTOR

1. What is the historic and current relationship between water resources, the Everglades, and the Tribe's land?
2. Do you feel that the location of the land accorded to the Tribe is adequate to maintain the Tribal Cultural traditions and economic development of the Tribe?
3. Are you aware of global climate change?
4. Are you aware of any adverse effects that might impact the Tribe?
5. Are you aware of the possibilities of sea-level rise and the possible impacts on South Florida and tribal land?
6. If the amount or location of Tribal land and/or water resources is/are impacted by climate change, what do you believe would be a just response by the Florida state and U.S. federal government to loss of land.
7. If that action or assistance is inadequate, what do you see as a remedy?
8. Do you know what a Truth and Reconciliation Commission is?

APPENDIX F:
GULLAH/GEECHEE RESEARCH COLLABORATION GUIDELINES

1. Respect the fact that this is a “living culture” and that the people have a right to choose whether or not to be studied. In order for them to make a clear decision in this regard, the aim of the study should be communicated as clearly as possible at the very beginning of contact with the community.
2. Contact institutions and/or organizations which can connect you with a Sea Island mentor or mentors in order to present information in the proper perspective. Some such organizations that provide research assistance:

Gullah/Geechee Sea Island Coalition www.gullahgeechee.net

Gullah/Geechee Angel Network www.gullahgeecheeangelnetwork.com

Geechee Kunda www.geecheekunda.com

3. Couple all documented research and analysis of the culture with information obtained by discussion with Gullah/Geechee community members and mentor(s). The family members of those that are deceased that will be represent in the document, film, or other final product should be included in the discussion as well.
4. Do not attempt to speak Gullah to native speakers as a means of trying to be accepted.
5. Do not push people to begin to speak Gullah to you or in your presence.
6. Do not attempt to force your way into the Gullah/Geechee community or to superimpose the ways of your community on the Gullah/Geechee people including taking photos without permission.

7. If you have the opportunity to engage in community service or research that will involved meeting Queen Quet (www.QueenQuet.com) and/or the Wisdom Circle Council of Elders or Assembly of Representatives of the Gullah/Geechee Nation, make sure that you respect and follow the protocols of the Gullah/Geechee Nation (www.gullahgeecheenation.com)
8. Do not use films or books as your primary reference for Gullah/Geechee culture. Ensure that you review your sources for information that you seek to quote by sending the source list to some of the aforementioned research support organizations.
9. Follow through on your work with the people that are assisting you. Always put something positive and beneficial back into the community. Also, make sure that thee community has seen the completed project. One secure point of deposit for copies of all materials produced on the Gullah/Geechee community, which is accessible to all in the community is te Gullah/Geechee Sea Island Coalition's "Gullah/Geechee Alkebulan Archive." You can and should deposit a copy of the completed work there by emailing it to GullGeeCo@aol.com or sending it to:

Gullah/Cheechee Sea Island Coaliton

Post Office Box 1207

St. Helena Island SC 29920

APPENDIX G:
QUESTIONNAIRE FOR PARTICIPANTS FROM THE GULLAH/GEECHEE
NATION

1. What is the historic and current relationship between the Ocean and your Nation?
2. What do you think is the greatest threat to Gullah/Geechee land?
3. What would it mean if your land was washed away by sea-level rise?
4. Do you think the federal government has a responsibility to compensate for your loss of land?
5. What do you believe would be a just response by the government to loss of land?
6. In terms of losing your land to climate change driven by large, industrialized nation-states, do you feel your rights to land, culture, and heritage are potentially impeded upon by loss of your land to sea-level rise?
7. In the context of losing land to sea-level rise, what forms of compensation by the federal government do you feel may provide retribution for your loss?
8. If you were to experience cultural loss from losing your land to sea-level rise, how would you feel about a response such as this from the government that emphasizes the noneconomic aspect of loss and damage your Nation may experience from losing land to sea-level rise:

(This is a hypothetical situation proposed to take place at the state or federal level. The aim of this study is not necessarily to create such a Commission; rather, it is to explore a possible scenario of noneconomic loss and damage compensation in the context of climate change.)

The federal government establishes a Truth and Reconciliation Commission to investigate the United States' violations of Native American and Peoples' human rights through its contributions to global climate change. This Commission is grounded upon integrating the insights of Tribal, Nation, and community stakeholders in a meaningful manner. The Commission may allocate funds to the relocation and settlement of Tribes and Nations and the cultural preservation of Tribes and Nations' histories.

APPENDIX H:
NOTICE OF DEFENSE

NOTICE OF DEFENSE

Announcing the Defense of Thesis
of Sarah E. Swiersz
for Honors Undergraduate Thesis
Interdisciplinary Studies

Friday, 17 April, 2020

10:00 a.m.

Virtual Defense Zoom Video Chat

<https://tinyurl.com/SSdefense20>

Thesis Title: Sea-Level Rise and Climate Justice for Native Americans and Indigenous Peoples: An Analysis of the United States' Response and Responsibilities

The intent of this thesis is to explore non-economic loss and damage experienced by Native American Tribes and Peoples as loss of traditional land to sea-level rise and inland flooding driven by climate change threatens the cultural practices and ties to heritage that provide ontological grounding for many Native Peoples. The purpose of this study is to address a gap in qualitative research by recording the perspectives of members of the Seminole and Miccosukee Tribes and Gullah Geechee Nation on sea-level rise washing out ancestral lands as a result of climate change and ideas of biocultural conservation when considering the future of the coastal Southeastern U.S. The ultimate purpose is to understand how Tribe and Nation members perceive the response and responsibility of the U.S. government in these situations. The thesis culminates with a policy proposal resulting from the findings.

Committee:

Dr. Peter J. Jacques

Dr. Robert L. Bledsoe

Dr. Vance Geiger

Approved By: Peter J. Jacques

Doc ID: 05f2d2af16296dce151c48ecb8e2b22e733c04ed

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