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**Structured, Scalable, and Just:
Evaluating the Implementation of the Isle de Jean Charles
Resettlement Project through Risk-Mitigation Strategies**

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Abstract

Losing 25 square miles of land each year, Louisiana's southern coast is one of many regions facing the destructive impacts of the ongoing climate crisis. The residents of the Isle de Jean Charles – most of whom are members of the Band of Biloxi-Chitimacha-Choctaw Indians and United Houma Nation – live in this region, on an island that has lost over 98% of its land in the past 60 years due to rising sea levels, increasingly severe storms, and impacts of oil development. In response to the unsustainable future of the Isle de Jean Charles, the state of Louisiana's Office of Community Development was awarded \$48.3 million by U.S Housing and Urban Development in 2016 to implement the Resettlement of the Isle de Jean Charles – the United States' first federally-funded, climate-driven planned relocation. By placing the Resettlement of the Isle de Jean Charles in the context of existing literature, using community meetings and IDJC community census surveys for insight into the resident perception of relocation efforts, and newspaper article analysis for public/media portrayals of the resettlement, a complete narrative of the island, its residents, and relocation is crafted. This paper explores the implementation of this resettlement project by categorizing findings into eight deconstructed components of displacement outlined in Michael Cernea's model of displacement and resettlement (landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources, and community disarticulation) and assesses how this federally-funded climate-driven resettlement addresses each of these risks and their respective risk-mitigation strategies. Although complete resettlement is still underway, I argue that goals towards a structured, scalable, and just resettlement from the Isle de Jean Charles are being hindered by skepticism regarding government intervention by Native American residents, the pace of progress/failure to align with promised timelines, failure to achieve tribal consultation, and the irreplicability of cultural attachment to place during relocation. The successes and limitations identified in this case study of climate-induced resettlement implementation prove the need to consider risk mitigation strategies against marginalization, loss of access to common property resources, community disarticulation, and legacies of distrust due to historical wrongdoings while completing the Resettlement of Isle de Jean Charles and facing an inevitable future of climate-driven displacement and relocation.

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Abstract	2
I. Introduction	4
II. Background and Context	5
III. Literature Review	7
Regional Analysis of Impacts of Environmental Change	7
The Isle de Jean Charles	8
Frameworks of Resettlement	9
Planned Relocation: Lessons from Prior Case Studies	11
IV. Overview of Research: Conceptual Framework	12
VI. Methodologies	13
News Article Analysis	13
IDJC Community Meeting Transcripts and Census Surveys	14
Thematic Categorization into Risk Components and Mitigation Strategies	15
Relevant Limitations of Data and Methods	15
VII. Data Analysis and Discussion of Findings	16
Joblessness to Reemployment	18
Homelessness to House Reconstruction	20
Marginalization to Social Inclusion	22
Food Insecurity to Adequate Nutrition	24
Increased Morbidity to Improved Health Care	26
Loss of Access to Restoration of Common Property Resources	27
Community Disarticulation to Network Rebuilding	27
Summary Table of Data Analysis	29
Key Findings from Data Analysis	31
VIII. Broader Implications and Policy Recommendations	32
IX. Conclusion	36
X. Bibliography	39

I. Introduction

Louisiana's southern coast is in peril – once encompassing 40% of the nation's coastal wetlands and now losing 25 to 25 square miles of land each year, this area is one of many facing the destructive impacts of the ongoing climate crisis (Katz 2003). The residents of the Isle de Jean Charles (IDJC) live in this region, on an island that has lost over 98% of its land in the past 60 years and is slipping into the Gulf of Mexico due to rising sea levels, increasingly severe storms, and impacts of oil development (Simms et al. 2021). Once home to hundreds of Native American families, IDJC is quickly disappearing and so are the tribes that live there. Land formerly used to hunt animals and farm is now open water and the sole connecting road from the island to the mainland is often impassable due to high winds, sea level rise, or storm surges. In response to the unsustainable future of the region and following years of attempts at tribe-driven resettlement, U.S Housing and Urban Development awarded the state of Louisiana's Office of Community Development \$92 million in 2016 for 'LA SAFE' or Louisiana's Strategic Adaptations for Future Environments project, \$48.3 million of which was allocated to implement the Resettlement of the Isle de Jean Charles. The ongoing Resettlement of the Isle de Jean Charles is the United States' first federally-funded, climate-driven relocation and has brought up questions of leadership, place-making, and socially just relocation.

From the outset, the state's expressed purpose was to plan and design a relocation that would reflect the values of the Isle de Jean Charles people. In policy proposals, progress reports, and grant applications, the Resettlement team consistently highlight their commitment to implementing a relocation that is "guided by an understanding of [residents'] expressed priorities, needs and concerns, the new community will reflect the Isle de Jean Charles people's values, cultural affiliations and economic objectives [...] The state hopes its holistic approach will illustrate best practices and lessons learned for the resettlement of other diverse and culturally rich communities facing climate-driven relocation" (Louisiana Office of Community Development 2020). To evaluate the relocation efforts, I utilize Michael Cernea's theoretical model of resettlement – an outline of deconstructed displacement risks and methods of mitigating these negative impacts – as a framework by which to examine attempts at social justice and risk mitigation in the IDJC Resettlement Project (Cernea 2004). Through my research, I ultimately aim to assess current successes and failures towards the overarching goal of carrying out a structured and scalable relocation by finding answers to the following questions: How effectively does the Resettlement of the Isle de Jean Charles address each of the eight deconstructed risks of displacement outlined in the Impoverishment Risks and Reconstruction (IRR) Model through suggested risk-mitigation strategies? What challenges has the IDJC experienced in efforts to implement the first federally-funded climate-driven relocation?

I begin this process by first surveying existing literature that detail lessons from other case studies of relocation, frameworks of resettlement, regional impacts of environmental change in coastal Louisiana, and the ongoing resettlement of the Isle de Jean Charles. Informed by findings from existing literature, I will then attempt to provide a complete narrative of the implementation of this planned resettlement, using community meetings and IDJC community census surveys for insight into resident perception, newspaper article analysis for public/media portrayals of the resettlement, and spatial

imagery/analysis for visuals of regional land loss and migration. I then evaluate the risk mitigation and social justice of the Resettlement of IDJC by categorizing findings according to the deconstructed components of displacement risks from Michael Cernea's model of resettlement (landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources, community disarticulation) and ultimately assess how this federally-funded climate-driven resettlement addresses each of these risks and Cernea's recommended mitigation strategies. Although complete resettlement is still underway, I ultimately find that goals towards a structured, scalable, and just resettlement from the Isle de Jean Charles as implemented by the State of Louisiana are being hindered by skepticism against government intervention by Native American residents, the pace of progress/failure to align with promised timelines, the failure to achieve tribal consultation, and the irreplicability of cultural attachment to place during relocation.

The successes and limitations identified in this case study of climate-induced resettlement implementation demonstrates the need to consider risk mitigation strategies against marginalization, loss of access to common property resources, community disarticulation, and legacies of distrust due to historical wrongdoings in any resettlement project and specifically the Resettlement of the Isle de Jean Charles. Through the data analysis project, I also identify that the resettlement project's incomplete risk-mitigation against marginalization not only serves as a limitation in the implementation of the Resettlement of the Isle de Jean Charles but also suggests a need to update Cernea's IRR model in order to incorporate a more nuanced understanding of the manifestations of marginalization in resettled communities into risk-mitigation strategies against marginalization that go beyond social inclusion.

After assessing the current successes and failures of the Resettlement Policy's mitigation attempts against each deconstructed risk of displacement, I conclude this study with key findings from this process, policy lessons from the implementation of the Resettlements of the Isle de Jean Charles, and overarching policy recommendations (such as federal recognition of IDJC tribes, improved enforcement of tribal consultation requirements, and establishment of federal climate migration protocol) that can be applied to ongoing resettlement projects and the inevitable future of climate-driven displacement and relocation.

II. Background and Context

As early as 1990, the Intergovernmental Panel on Climate Change predicted that the single greatest impact of climate change could be on human migration. Current analyses place estimates of population redistribution at a range of 200 million to 1 billion people by 2050 (International Organization for Migration, n.d.). Sea-level rise is expected to inundate between 272 and 427 United States communities by 2060, as approximately 40% of the nation's population resides in coastal regions (Dahl et al. 2017). The land loss faced by coastal Louisiana and the Isle de Jean Charles (detailed in the review of existing literature in section IIIa) is an extreme example of the impacts of coastal erosion and rising sea levels – and strongly suggest that climate migration and population redistribution are ongoing and tangible crises.



Figure 1: IDJC land loss over time (Google Earth, 2022)

The Isle de Jean Charles is a narrow island located 80 miles south of New Orleans in South Terrebonne Parish, Louisiana and home to the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation. In the 1830s, ancestors of these Native American communities settled on the Island in an attempt to escape displacement by the United States government’s forced resettlement programs under the Indian Removal Act, leaving their native lands in search of a place where they could continue their culture and live together in hiding.

Centuries earlier, French colonists began levee construction in an effort to tame the Mississippi River, whose natural cycle of floods and sediment deposit challenged their efforts to establish a colony in the region. By 1927, 1,500 miles of levees were built in coastal Louisiana – but the Great Flood of 1927 destroyed these levees, killed hundreds of residents, and displaced entire communities (Percy 2002). The Flood Control Act of 1928 initiated the federal government’s levee construction along the Mississippi River, preventing flooding but also depriving the region of sediment – contributing to the rapid land loss of coastal Louisiana and the Isle de Jean Charles (Crepelle 2018). Levees and canals were dug throughout the early twentieth century, cutting off sediment flow from the Mississippi River to Isle de Jean Charles and thus cutting off replenishment for its local wetlands. The Isle de Jean Charles has also been affected by oil exploration – the creation of canals for oil-drilling rigs in the bayou area brought in saltwater, exacerbating land erosion by killing vegetation (Nevins 2015).

When members of the Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation settled, the IDJC was 10 miles long and 5 miles wide. Residents subsisted on coastal waters abundant with shrimp and fish and used the island’s greenery to farm and raise livestock. But since then, erosion fueled by climate change and anthropogenic initiatives and accelerated by the fossil fuel industry has forced them out once more. In 2013, the United States Army Corps of Engineers designed the Morganza-to-the-Gulf Hurricane Protection System, a levee, lock, and floodgate system designed to provide 100-year, Category 3 storm surge protection to coastal Louisiana. However, following contentious cost benefit analyses on the value of expanding designs to include the Isle de Jean Charles, the Island and the populations that reside on it were excluded from the protection of the Morganza levee designs. Since then, Chief Albert Naquin and other tribal leadership members have worked towards tribal-led resettlement efforts, including a negotiation with the Army Corp of Engineers to

relocate to a new site, but only if 100% of the tribe voted yes to the proposal (only 85% did). As Chief Naquin worked to gain support on the island and fundraising for a relocation effort, the Isle de Jean Charles and its residents continued to be inundated by floods from hurricanes Katrina (2005), Gustav (2008) and Ike (2008).

In 2012, when Hurricane Isaac hit the region, residents from dozens of households were displaced due to the destruction of their homes. Island residents continued to be displaced, relocating (mostly to different parts of Southern Louisiana) and receiving little coordinated federal aid. Although the tribes are recognized by the state of Louisiana, they do not meet the Bureau of Indian Affairs' criteria for federal recognition – and therefore lack eligibility for assistance from the Federal Emergency Management Agencies and the Bureau of Indian Affairs during such storms. Federal recognition provides tribes with tribal sovereignty (and subsequently tribal self-determination and agency over their natural resources) (A. Crepelle 2018). Given this lack of federal recognition, efforts towards relocation are reliant on state-level organizations like the Office of Community Development utilizing federal block grants such as Housing and Urban Development's \$48.3 million grant for the Resettlement of the Isle de Jean Charles. In August of 2021, more than half of the 15 homes with full-time residents on the Island were either destroyed or damaged beyond repair due to Hurricane Ida. Tribal leadership is cautiously hopeful at the potential for community reunion that the Resettlement of the Isle de Jean Charles can bring, yet still cognizant of the ongoing and upcoming limitations of its implementation.

III. Literature Review

In order to assess the current landscape of scholarship pertaining to this research, I explore existing literature in four main content areas. To orient the reader towards these impacts of climate change and oil development in Coastal Louisiana, I first explore literature that provides a regional analysis of the impacts of environmental change, which provides background for the IDJC's land loss and relatively small body of relevant research on the Isle de Jean Charles. I move on to provide an overview of existing frameworks of resettlement and conclude with lessons from prior case studies of climate-induced resettlement. For this literature review, I rely on published, peer-reviewed articles and publications from government agencies such as the United Nations High Commissioner for Refugees (UNHCR), Louisiana Office of Community Development, and Intergovernmental Panel on Climate Change (IPCC) to provide context to the relevant literature. The absence of research articles on the successes and limitations of the ongoing implementation of the Resettlement of the Isle de Jean Charles leaves a gap in the scholarship. The contentious history of the Isle de Jean Charles, urgency triggered by continued land loss, and inherent questions of just resettlement proves the significance and need for further study on the Resettlement of the Isle de Jean Charles and its implementation. Following this literature review, I describe a conceptual framework used to fill this gap, by assessing the implementation according to its success and failures in addressing risk mitigation strategies.

A. Regional Analysis of Impacts of Environmental Change

Louisiana’s coastal wetland loss is greater than all other states in the contiguous USA combined. Analysis by the U.S. Department of the Interior and U.S. Geological Survey shows the region “has experienced a net land area change of approximately -4,833 km² from 1932 to 2016, roughly the size of the land area of the State of Delaware” (Figure 2: U.S DOI and U.S Geological Survey 2017). This region is predicted to lose an additional 3,100 – 10,700 km² over the next 50 years if no action is taken (Couvillion et al. 2017) The combination of bio-physical changes in the Mississippi Delta and growing impacts of climate change – sea level rise, severe and frequent storms, etc. – inform predictions that 2.2 million coastal residents in Louisiana are under threat of being impacted by land loss in the next four decades (Hauer et al. 2019). In response to land degradation and crisis in the region, state and federal agencies have attempted to address the repercussions of environmental change. Already, many residents who can afford to relocate to higher ground have moved, businesses have closed in high risk areas, and local government services are being rebuilt on higher ground further from the coastal communities they serve (Fazey et al. 2021).

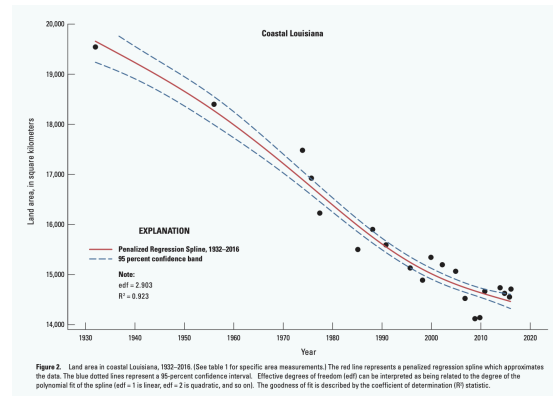


Figure 2: Land Loss in Coastal Louisiana (US DOI and U.S.G.S 2017)

The vulnerability of communities due to land loss, storm surges and hurricanes is compounded by major social and economic change. Historically, Louisiana has been the second most important oil- and gas- producing state, after Alaska, as approximately 20% of crude oil and 33% of natural gas in the United States flows through the Louisiana coastal zone (Ko et al., n.d.). Over time, oil and gas operations have moved to deeper waters offshore and the increasing use of automation has limited opportunities for employment on rigs while triggering ecological consequences (Houck 2015). As Ko et. al outline in their analysis of the impacts of oil development on coastal wetland loss in the Mississippi Delta, oil and gas-related activities ultimately result in the following risks towards coastal ecology:

- Artificial levees and canals disrupt the natural hydrology of the region, affecting plant health and sediment dynamics
- Pipeline building for transporting oil and gas produced inside the coastal zone disrupts the natural hydrologic regime
- Oil spills degrade terrestrial, aquatic, and marine ecosystems
- Spilled oil and industrial wastewater stress the ecosystem by increasing turbidity, introducing toxins, etc.; and
- Loss of wetland area because of direct and indirect impacts decreases the nursery ground for estuarine consumers (e.g., shrimps and fishes) and its economic value.

As part of coastal Louisiana, the Isle de Jean de Charles continues to face the impacts of climate-induced land loss, hurricanes and storm impacts, and oil development. Environmental change in coastal Louisiana highlights the urgency needed to restore and sustain the coastal ecosystem and resettle impacted communities.

B. The Isle de Jean Charles

Given the ongoing nature of the Resettlement of the Isle de Jean Charles, limited literature is available on the island itself and even less regarding the project/ implementation of the Resettlement – which underscores the significance and need for research on this case study of planned relocation.

As briefly mentioned above, in 2013 United States Army Corps of Engineers designed the Morganza-to-the-Gulf Hurricane Protection System, a levee designed to provide storm and hurricane protection to coastal Louisiana. However, the Isle de Jean Charles and the populations that reside on it were excluded from the protection of the Morganza levee designs. 10 years before designs were finalized (and 13 years before U.S Housing and Urban Development awarded the IDJC funds to resettle from the island), Katz emphasized the importance of obtaining federal recognition as a Native American Tribe to not only make available federal services and benefits, but also ensure the right of tribal autonomy (Katz 2003). The finalized designs for the Morganza Levee maintain the exclusion of the Isle de Jean Charles and, to this day, the tribe is not federally recognized and thus unable to make use of federal resources directly (the Resettlement Project is carried out by state-level organizations making use of federal block grants)(Rivard 2015). In her legal review of “The Army Corps of Engineers’ Rejection of the Isle de Jean Charles Tribal Environmental Knowledge,” Wright frames levee designs as an intentional decision to flood out the island and rejects justifications of cost-prohibitiveness given the Army Corps of Engineers’ lack of consideration of the community’s oceanography expertise (Wright, n.d.). “Had the Army Corps of Engineers taken seriously the information provided to it by the Isle de Jean Charles Tribe,” Wright argues, “they would have found a ridge sufficient for supporting a levee. If the court system does not intervene, [this] decision will amount to nothing short of a cultural genocide” (Wright, n.d.).

The official Resettlement of the Isle de Jean Charles that I explore in this paper is the result of the incorporation (or lack thereof) of a decades worth of legal comments and policy reviews that highlight the urgent need for action and intervention to support the residents of the Isle de Jean Charles. Legal suggestions of federal tribal recognition for IDJC autonomy and judicial intervention to redesign the Morganza Levee; These findings and suggestions will inform my analysis of the Isle de Jean Charles’ implementation and policy recommendations (Katz 2003; Wright, n.d.; King 2017).

In her comments on The Resettlement of the Isle de Jean Charles for the Louisiana State University Journal of Energy Law and Resources, King discusses the importance of developing a successful model of incentivized voluntary resettlement and reviews an ideal resettlement scenario as envisioned by the residents of Isle de Jean Charles (King 2017). These comments were provided in 2017, after Louisiana was awarded \$92 million for LA SAFE and the relocation of the Isle de Jean Charles community but plans for the Resettlement of IDJC were not yet finalized. King establishes the

following suggestions to ensure maximum participation in the incentivized voluntary resettlement process:

- Residents should play a major role in decision-making for all aspects of the process.
 - A committee of island residents should work directly with the planning body and convey concerns of the community.
 - State officials should hold monthly planning meetings with the entire community to weigh in on decisions.
- Resettlement should occur to a safer location “that is still as close as feasibly possible to the island” in order to ensure a maintained relationship with the land for as long as it exists.
- Affordable housing should be available to residents in their new community.
- The IDJC community should be resettled in an area with employment opportunities similar to those industries they formerly worked in.
- A system of effective management of the process should be created to “ensure the government, its agencies, planning bodies, and the residents themselves are a part of every step of the process.”

Although detailed recommendations were laid out by King, the absence of research articles reviewing the incorporation of these recommendations, as well as overall successes and limitations of the ongoing implementation leaves a gap in the scholarship.

C. Frameworks of Resettlement

“Planned relocation” refers to a “process in which persons or groups of persons move away from their homes or places of temporary residence, are settled in a new location, and provided with the conditions for rebuilding their lives” (UNHCR 2015). Although this definition explicitly highlights the importance of providing conditions through which relocated populations can rebuild their livelihoods, relocations are frequently unsuccessful in providing successful and holistic outcomes for affected communities (Tadgell et al. 2018). The disruptive nature of resettlement has made it a last resort in climate change, hazard, and development planning (Tadgell, Doberstein, and Mortsch 2018). Although the United Nations High Commissioner for Refugees’ climate change resettlement guidelines stresses that resettlement should only be implemented when “no other means of adaptation are available to enhance the population’s resilience,” relocation remains a natural and necessary response to the threats of climate change (UNHCR 2014).

While resettlement may have negative impacts on relocated communities, it can succeed if appropriately financed, planned, and implemented, according to the United Nation’s Planned Relocation, Disasters, and Climate Change report (United Nations High Commission for Refugees 2014). However, given its relatively new status as an adaptation strategy, the literature on resettlement in response to climate change is limited. Environmental resettlement research has traditionally focused on hazards and natural disasters, social upheaval, and economic development (Badri et al. 2006). Thus, resettlement strategies have often been practiced reactively. The earliest attempts at managed retreat were in response to erosion and flooding (Klein, Nicholls, and Mimura 1999). In these cases, relocation

was initiated to limit the potential impacts of environmental threats by removing communities from high-risk areas through proactive management and new development. This strategy has been found to promote the sustainability of impacted communities by allowing flexibility in response options before environmental risks become reality (Reisinger et al. 2015). Still, even proactive relocation may pose harms if not planned and implemented with intentional consideration of the communities at risk. It is critical to not only proactively communicate with affected populations to persuade them of the need for resettlement, but also grant them the agency to participate in their relocation process (Campbell and Barnett 2010; Few, Brown, and Tompkins 2007; Ferris 2012). The literature uniformly stresses the need for the incorporation of communication and participation in project planning (de Wet 2001; Maitra 2009; Badri et al. 2006; Cernea 2004; Tadjell, Doberstein, and Mortsch 2018). With due diligence, the stated mission by the Isle de Jean Charles' Resettlement Team makes clear a conceptual understanding of the importance of community participation and communication in relocation. In their efforts to implement the resettlement and be "guided by an understanding of their expressed priorities, needs and concerns" and are working towards a new community that "reflects the Isle de Jean Charles people's values, cultural affiliations and economic objectives" (Louisiana Office of Community Development 2020). That is, the stated mission of the resettlement of the Island incorporates lessons from resettlement on communication and participation.

While scholars agree that community involvement and communication are necessary components of successful resettlement, execution and implementation of such components require a nuanced understanding of and attention to factors such as stakeholders costs, how assets and rights are accommodated, and the distribution of resettlement benefits (Reisinger et al. 2015). Compensation allows for the reimbursement of personal and community losses experienced from relocation. Incentives may be offered in addition to compensation to allow for the opportunity to rebuild stronger than before. Compensation often takes the form of cash payment, land, employment, public services, and intangibles. Cash can be empowering in its opportunity to update or change a population's income sources, but many authors warn that "it often fails the communities it was meant to help" particularly if it is not coupled with financial guidance, training, or payment schemes to address lack of experience in managing large sums of money (Tadjell, Doberstein, and Mortsch 2018). If cash payments are distributed according to the replacement values of lost items and land, compensation is limited to physical and measurable items (Badri et al. 2006). Non-monetary social and cultural resources, opportunities for subsistence, emotional tolls, loss to ancestral land, and physical hardship may be completely neglected if a resettlement team is dependent on cash payments as compensation (Al Atahar 2014). As described as a displacement risk-mitigation strategy and more sustainable means of compensation, the provision of employment or land allows for long-term income-generation and should be provided to resettled populations (Cernea 2004; DaCosta and Turner 2007; Edwards 2013). Additionally, resettlement can be made attractive by providing incentives in the form of services not offered in their current location. During the planning process for the Resettlement of the Isle de Jean Charles, the resettlement team asked residents for specific services and amenities they would like to see in their new community. Answers ranged from large yards and community centers to close access to public schools and dictated development plans moving forward. Following through on such requests

and offering services that may have never been feasible on the island can encourage populations to relocate and remain at new sites in the long term (Usamah and Haynes 2011).

Disruption caused by resettlement has been interpreted by many scholars as an opportunity to improve the circumstances of a community (Hong, Singh, and Ramic 2009; Evrard and Goudineau 2004; McDowell 2013; Cernea 2004). Recognizing the impact of income-generation and social networks on the livelihoods of relocated populations seems to be critical in allowing for sustained or improved conditions for a resettled community, and ultimately achieving the goal that Draper and McKinnon set forth in their framework of a socially just climate-driven migration: “relocation starts with a commitment to making those affected better off than before [and] a broader understanding of what is owed to those affected as a matter of distributive justice” (Draper and McKinnon 2018).

D. Risks of Planned Relocation: Lessons from Prior Case Studies of Climate Induced Resettlement

Communities around the world are already undertaking the process of planned climate-induced relocation, including in the Solomon Islands (Albert et al. 2018), Papua New Guinea (Connell 2016; Lipset 2013), Fiji (Piggott-McKellar et al. 2019), Newtok, Alaska (Ristroph 2021), West Bengal (Montreux et. al 2019), and countless others. Climate change impacts are projected to be amplified in the future, affecting an increasing range and number of people (IPCC 2021). Climate-induced planned relocations and resettlements, such as that taking place in coastal Louisiana, are emerging as a new field of research and policy. In their report on planned relocation cases in the context of climate change, Bower & Weerasinghe identify 308 cases of planned relocation documented in English-language peer-reviewed scholarly articles or gray literature (Bower and Weerasinghe, n.d.). The range of initiating factors of resettlement described in their review prove that “multiple drivers may underpin decisions on planned relocation” and most fall within a spectrum of proactive and reactive relocation. As described earlier, although planned relocation is recognized as a tool for disaster risk reduction and climate change adaptation, it can pose risks to a community’s socio-economic prosperity, cultural practices, and human security. Reflecting on the lessons from scholarly research on previous case studies of this process can serve as a foundation for future and ongoing efforts of relocation planning and inform the findings from this case study of the Isle de Jean Charles.

Through a review of several case studies of environmentally induced resettlement, the following are described as risks posed by community relocation:

- *Loss of Access to Common Property Assets* – Supporting resources such as rivers, forests, land for farming, and animals are often depended on by a community for subsistence and local economies. In relocating, communities lose the free/unlimited access to resources that they once relied on (Jehom 2013).
- *Landlessness* – People experience landlessness through the failure/absence of land compensation policies, quality and relative infertility of the compensated/resettled land (as described in Reservoir Resettlement policies of the Three Gorges Dam), or the sale of compensated land out of financial desperation after resettlement (as described in a case study from Nepal) (Li Heming, Waley, and Rees 2001; Lam and Paul 2013).

- *Hostility and Exclusion* – Resettlements involving host communities or the integration of relocated populations into pre-established communities often resulted in negative outcomes due to power dynamics between different communities and the breakdown of social networks (Piggott-McKellar et al. 2020; González-Parra and Simon 2008)
- *Affected Social Networks* – The physical restructuring of a community, in terms of changes to communal spaces, village layout, and housing, often impacts social network. The lack of consideration to community articulation and values in resettlement processes has potential to change population behavior, social life and structure, and household size (Piggott-McKellar et al. 2020; Wang and Wall 2007; Cronin and Guthrie 2011; Kingston and Marino 2010; Ristroph 2021)

Ultimately, climate-induced relocations have the potential for positive impact. If improperly managed and undertaken, however, they can have unintended negative impacts – and highlight “community involvement in the planning process, regular and intentional monitoring and evaluation, and improving livelihoods through targeted livelihood planning” as critical components for sustainable and beneficial outcomes of climate-induced relocation (Piggott-McKellar et al. 2019). Beyond this, attention to factors such as land/compensation, livelihood assets, community vulnerabilities, explicit recognition to cultural dimensions of relocation, and participatory planning are required to mitigate the risks associated with relocation (Piggott-McKellar et al. 2020).

IV. Overview of Research: Conceptual Framework

In this thesis, Cernea’s deconstructed displacement risks and methods of mitigating these negative impacts will be used to analyze the implementation of the Resettlement of the Isle de Jean Charles and provide a complete narrative of the implementation of this planned resettlement by way of Cernea’s Impoverishment Risks and Reconstruction Model (IRR). Cernea asserts that “the most widespread effect of involuntary displacement is the impoverishment of considerable numbers of people. Such impoverishment, with its de facto lack of social justice and equity manifests [globally]” (Cernea 2004). Cernea responds to the realities of displacement caused by historical and ongoing development projects through a theoretical model for resettlement that highlights risks of displacement as well as the ways to counteract – eliminate or mitigate – such risks. Cernea explains that “if impoverishment is the looming risk in displacement, the challenge is to organize risk prevention and provide safeguards” (Cernea 2004). The IRR Model deconstructs risks resulting from displacement into its identifiable components and strategies for targeted risk reversal, which includes the following: landlessness to land-based resettlement, joblessness to reemployment, homelessness to house reconstruction, marginalization to social inclusion, food insecurity to adequate nutrition, increased morbidity to improved health care, loss of access to the restoration of common property resources, and community disarticulation to network rebuilding (Cernea 2004).

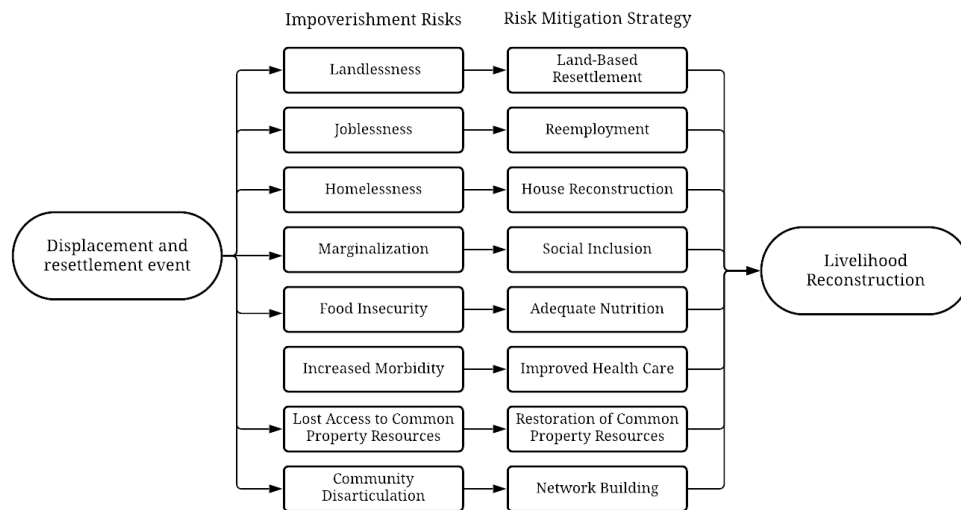


Figure 4: Adopted from *Impoverishment Risks, Risk Management, and Reconstruction* (Cernea 2004)

Cernea’s Impoverishment Risks, Risk Management, and Reconstruction model, outlined in the diagram above, serves as a theoretical tool to guide policy and resettlement design to counteract the adverse effects of relocation. By categorizing collected data into the components of displacement outlined in this model, I ultimately assess how this resettlement policy attempts to address each of these risk-mitigation strategies. Some risk-mitigation strategies can be easily be identified – for example, by purchasing new land for the resettled community, the team achieves “land-based resettlement”. Other risk-mitigation strategies are more challenging to address given the discrepancy in the stated intentions of the resettlement team and realities of implementation, complicated by abstract but justified obstacles such as distrust, power imbalances, and historical legacies of marginalization. Cernea’s extensive list of theoretical risks underscores the intentionality required of planned relocation so that livelihood is maintained. As such, by identifying risk-mitigation strategies that are partially addressed or entirely unaddressed, the current limitations and successes of resettlement implementation will be highlighted and can be used to inform which risk-mitigation strategies to intentionally increase consideration of during the remainder of the IDJC project and upcoming climate-induced resettlement efforts.

V. Methodologies

A robust narrative of the implementation of this planned resettlement is informed by findings from existing literature on other case studies of relocation, frameworks of resettlement, regional impacts of environmental change in coastal Louisiana, and the ongoing resettlement of the Isle de Jean Charles. The current successes and failures towards the overarching goal of carrying out a structured, just, and scalable resettlement will be assessed according to its ability to address Cernea’s eight deconstructed components of displacement risks, using news article analysis and content analysis of IDJC community meeting transcripts and surveys as described below.

News Article Analysis

Given its unprecedented nature as the first federally-funded and climate-induced resettlement in the United States, the Isle de Jean Charles and its resettlement made (and continues to make) national headlines. However, the portrayal of relocation policies, attitudes of island residents, and the severity of land loss incorporated into news media have drastically changed over time. I engage in a systematic review of publicly available news articles that mention the Isle de Jean Charles residents, the island, and/or the resettlement project. Using a mix of local, national, and international news sources, I systematically review and organize news sources in chronological order. To collect articles for analysis, I conduct searches through online archives of various publications and ultimately, in an attempt to standardize the news articles chosen, focus on articles aggregated on the resettlement project website (isledejeancharles.la.gov/news) alongside one-off pieces referenced in the articles from this database. Although bias was anticipated, given that news sources were filtered by the resettlement team to be posted on the project website, articles with narratives about residents losing faith in the timelines, primary quotes or interviews from residents prove that this database showcases the range of perspectives that were intended to be incorporated into the analysis. As stated on the official resettlement website, “the news outlet links below represent many viewpoints, aggregated here for reference purposes only. The Louisiana Office of Community Development makes no claim as to the veracity or accuracy of any views contained herein.” In total, 110 articles are analyzed from all sources combined.

After reading each of the news articles collected, I created a database of quotes and anecdotes of island residents, tribal council leaders, resettlement team members, and other stakeholders in order to inform the narrative of the Resettlement Project and serve as primary evidence of perceptions of the shortcomings and successes of relocation policy and its implementation. A separate database was created to organize key characteristics of each article and begin thematic analysis; each article was recorded according to its title, source, date of publication, summary (for personal record), themes, risk component, and risk mitigation strategies mentioned. After organizing articles through these two databases, I engage in a thematic categorization of articles and portrayals of the Isle de Jean Charles, as described below in the data analysis section.

IDJC Community Meeting Transcripts and Census Surveys

After receiving funds from the HUD federal grant, the Resettlement Team began the “Data Gathering and Engagement Phase” of the Resettlement Project. From July to October of 2016, Louisiana’s Office of Community Development, Disaster Recovery Unit worked with Pan American Engineers (PAE), Chicago Bridge & Iron Company (CB&I), Concordia (a social impact consultancy), and the IDJC Band of Biloxi- Chitimacha-Choctaw (BCC) tribal leadership in order to execute two community meetings, a land infrastructure survey of the Island, and household interviews with Isle de Jean Charles residents. Official reports from the IDJC Resettlement team indicate that “this work was carried out to build upon the state’s understanding of the project’s beneficiaries and to ensure that the needs of the Island’s residents are addressed throughout the resettlement project. Engagement is also crucial to building trust with Island residents, as the state will lean on Islanders to define many of the

attributes of the future resettled community” (Louisiana Office of Community Development 2020).

Full transcripts from community meetings, verbatim comments from group activities, land use survey results and household interview scripts were published by the Resettlement Team and will be used as the primary dataset for my research on the IDJC Resettlement Project. Using these published comments and data sets, I reference quotes and responses of island residents in household surveys in order to inform the narrative of the Resettlement Project and serve as primary evidence of shortcomings and successes of relocation policy. Summaries and key takeaways from community meetings are used for insight into resident perception of the implementation of the Resettlement project.

Thematic Categorization into Risk Components and Mitigation Strategies

After collecting and analyzing the data described above, I organize and categorize the Resettlement of the Isle de Jean Charles into the eight deconstructed risks of displacement outlined in the IRR model in order to assess current successes and limitations in risk mitigation strategies. Throughout the data collection process, I classified and categorized data from news articles analyses, community surveys, and the policy/master plan of the resettlement (landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources, and community disarticulation). In section VII. Data Analysis, I include summaries and narratives of findings that relate to each respective risk component.

Relevant Limitations of Data and Methods

The methods described – news article analysis, content analysis of community meetings and household surveys, and spatial imagery – are combined to create a comprehensive narrative of the Isle de Jean Charles, its history, and implementation of resettlement policies. This paper aims to incorporate the attitudes and voices of all stakeholders in this resettlement project (island residents, Office of Community Development staff, resettlement team members, tribal leadership, etc.) in order to highlight limitations and successes in project implementation. The methods chosen for this study were intentional in avoiding direct interviews, particularly with island residents who, in being repeatedly named United States’ “First Climate Refugees” have been approached countless times by reporters, researchers, and community surveyors over the past six years. One journalist described his interaction in approaching an Island resident to ask about his perspective on the resettlement process:

I met Edison as he was unpacking groceries from his car, but it wasn't a pleasant encounter. He told me -- understandably, given the national microscope -- that he's sick of reporters asking him questions [...] He wouldn't talk more unless I paid him \$30 (Sutter 2016)

Using existing sources (journalistic interviews, documentaries, community surveys, etc.) to capture the perspective of stakeholders in the Resettlement of the Isle de Jean Charles allows for a more sustainable approach to community engagement that removes the need for yet another interviewer to ask questions that have previously been answered. However, the dependence on data sources collected by other agencies and researchers poses a limitation to data collected in this study in its reliance on

questions asked by individuals other than myself with potentially different intentions in their research. Particularly given my reliance on journalistic interviews and data sources, voices and opinions of certain community members are repeated and more present than others; quotes and anecdotes are not gathered from a randomly sampled group of island residents but instead self-selected by nature of which groups are approached by and engage with reporters most frequently.

VI. Data Analysis and Discussion of Findings

Using the methods described above, the resettlement plan and implementation has been categorized into the eight common risk patterns described by Cernea (detailed in IV. Overview of Research: Conceptual Framework). Cernea explains that these eight risk processes often accumulate into “the rapid onset of impoverishment” and should be addressed using each risk’s respective counteraction or risk-mitigation strategy (Cernea 2004). The subsections that follow describe and defend the overview of findings regarding how well the Resettlement of the Isle de Jean Charles adheres to Cernea’s IRR model is organized in the summary table below.

Table 1: Summary of Data Analysis, Applications of IRR Model to IDJC Resettlement

Risk	Risk Mitigation Strategy	Successes in Application of Risk-Mitigation Strategy	Limitations in Application of Risk-Mitigation Strategy
Landlessness	Land-Based Resettlement	<ul style="list-style-type: none"> • Integration of values and attachment-to-land expressed by IDJC residents in plans for the island after resettlement • Purchase of and construction on 'The New Isle' – 515 acres of land in Terrebonne Parish 	<ul style="list-style-type: none"> • Unkept promises – potential upcoming private development on island to create seven adjacent recreational lots for campgrounds • Delays in implementation – initial timelines guaranteed relocation to be complete by 2020
Joblessness	Reemployment	<ul style="list-style-type: none"> • Exceptions allowed to the primary residence requirements on a case-by-case basis arising from hardship beyond the homeowner’s control • Integration of commercial sites into master plans for the New Isle for provide community revenue and employment opportunities • Design plans for two large open-air market pavilions situated between an event space and a proposed orchard/nursery 	<ul style="list-style-type: none"> • Delays in implementation – initial timelines guaranteed relocation to be complete by 2020
Houselessness	House Reconstruction	<ul style="list-style-type: none"> • Design plans for resilience to environmental hazards and long-term sustainability for all houses on The New Isle • Guaranteed provision of climate-ready houses to all current island residents or those who have moved off the Isle de Jean Charles after August of 2012 • Cultural awareness, community respect, and sustainable development indicated through incorporation of feedback from community meetings 	<ul style="list-style-type: none"> • Justified frustration by island residents at the pace of progress of house construction on the New Isle

		and household surveys into design plans	
Marginalization	Social Inclusion	<ul style="list-style-type: none"> • Intentional incorporation of resident involvement in the design, planning, and implementation process of the resettlement 	<ul style="list-style-type: none"> • Removal of direct agency from tribal leadership through grant funding distribution formula • Perceived lack of transparency between State offices and tribal leadership
Food Insecurity	Adequate Nutrition	<ul style="list-style-type: none"> • 9 groceries located within 15-minute driving distance from the New Isle (dozens more exist within a 20-minute driving radius) • Fertile soil on the New Isle that continues to produce sugar cane crops and could be further developed into farmland. 	<ul style="list-style-type: none"> • Lack of intentional incorporation of cultural food practices on the New Isle, including subsistence farming and fishing
Increased Morbidity	Improved Health Care	<ul style="list-style-type: none"> • 5 health care providers located within <30-minute driving distance from the New Isle 	
Loss of Access to CPRs	Restoration of Access to CPRs	<ul style="list-style-type: none"> • Incorporation of community gathering spaces and communal lands near each home (within 5-minute walk of each house) • Potential for former-agricultural land in the New Isle to be turned into common farmland by residents 	<ul style="list-style-type: none"> • Absence of access to (non artificial) water bodies on the New Isle, for access to farming and fishing
Community Disarticulation	Network Rebuilding	<ul style="list-style-type: none"> • Opportunity to reunite members of tribe that have been forced to leave the island over the past decade; new setting for the IDJC residents to reconnect and live together once again 	<ul style="list-style-type: none"> • Failure to acknowledge the United Houma Nation's presence on Island • Lack of tribal consultation compounded the frustration between tribes, skepticism towards resettlement agencies, etc.

A. Landlessness to Land-Based Resettlement

“For the people of Isle de Jean Charles, the island is more than simply a place to live. It is the epicenter of our people and traditions. It is where our ancestors cultivated what has become a unique part of Louisiana culture.” (IDJC Biloxi-Chitimacha-Choctaw Indians of Louisiana n.d.)

Land serves as the foundation upon which people’s livelihoods, communities, and culture are based on. The importance of land is highlighted for residents of the Isle de Jean Charles, most of whom are members of the Biloxi-Chitimacha-Choctaw community. In journalistic interviews, residents stress the significance of the island, its history, and the irreplicability of the Isle de Jean Charles. In 2016, after being awarded the grant for Resettlement by the Department of Housing and Urban Development, tribal leaders started making plans to bring as much of the island with them. “They have begun to collect seeds and plant cuttings, and are interviewing older community members about what life was like when the island was fully populated. [...] If you ask us, it’s worth saving. We’re trying to replace what has been lost” explained Chantel Comardelle, Tribal Executive Secretary of the IDJC Biloxi-Chitimacha-Choctaw Indians (Zanolli 2016). Informed by community meetings and surveys, the Resettlement Team explicitly acknowledges this irreplicability of place; “The resettlement team has used every resource to develop a plan for [the new community] that transplants the essence of Isle de Jean Charles in those ways that are possible. But, as any island resident would affirm, there is no substitute for Isle de Jean Charles, no matter what the New Isle becomes in the future or how broadly successful, or unsuccessful, the resettlement effort may prove to be in the years to come. Isle de Jean Charles is one such sacred place” (Louisiana Office of Community Development 2021).

In December of 2018, the Louisiana Land Trust, on behalf of the Louisiana Office of Community Development, purchased 515 acres of land (a former sugar farm) in Terrebonne Parish to serve as the site for the Resettlement community, named ‘The New Isle’ by island residents. The New Isle is located about 40 miles north of Isle de Jean Charles on land determined to be higher, safer, and more resilient than the Isle de Jean Charles. In intention, land management for the New Isle and Isle de Jean Charles check all the boxes for socially responsible resettlement. “It’s not going to be just a subdivision, it’s going to be a web of life,” explains Katrina Peterson of the Lowlander Center, a non-profit working closely with the tribe and Office of Community Development on resettlement (Zanolli 2016). Plans described in the Office of Community Development’s Phase 2 Report suggest thorough engagement with and incorporation of community ideals in designs for The New Isle.

“The new community was designed for growth and resilience while honoring the traditions of the past. Co-designed with residents, The New Isle’s plan features the following principles: 1) all housing built outside the 500-year floodplain; 2) both the site and housing design support a multi-generational community; 3) the site demonstrates responsible stewardship of water and natural resources; 4) housing designed to be durable for at least 50 years; 5) the site and structures support community health and productivity. [...] The New Isle’s design speaks to the characteristics and quality of life on Isle de Jean Charles, seeking to emulate island attributes most valued by residents. Like the island, The New Isle is designed for water to flow through the site and be accessible throughout. The ‘braided’ pattern of

housing in the neighborhood will offer a mixture of communal living and the privacy of rural life, evoking the linear arrangement of the island. Nature will be close at hand even while access to amenities and services will be more convenient.” (Louisiana Office of Community Development 2021)

Plans for the New Isle suggest a successful integration of the values and attachment-to-land expressed by IDJC residents. Similarly, the Resettlement Team’s description of post-resettlement plans for the Island de Jean Charles is respectful of residents’ wish to “leave [IDJC] untouched and at peace, and to allow for its people to use it as long as time and nature may allow.” The resettlement team developed a plan to “return the island’s residential parcels to nature” employing approaches of environmental remediation such as hazardous waste removal, utility disconnection, and removal of remaining structures in an attempt to allow the island to be left in “a state of rest, respecting the peace and tranquility island residents expressed as key characteristics of the island’s essence and history” (Louisiana Office of Community Development 2021).

Despite the apparent success in addressing landlessness through its correlated counteraction of land-based resettlement, the implementation of the risk-mitigation strategies described above proves to be limited given delayed timelines and unkept promises by the resettlement team. Despite the purchase of land for the New Isle occurring three years ago and initial timelines guaranteeing resident relocation to be complete by 2020, residents are still waiting to move in and engage in the land-based resettlement that was promised (“IsleDeJeanCharles.La.Gov” 2016). Beyond this postponement of proposed timelines, culturally-responsive plans to return the island to nature outlined in the resettlement team’s master plan have been reported being neglected; a local development firm recently requested approval from the Houma-Terrebonne Regional Planning Commission to create seven adjacent lots to sell to camp owners on the Isle de Jean Charles (Setyawan 2021a). During a weekly Regional Planning Commission meeting, Chief Albert Naquin, chief of the Isle de Jean Charles Biloxi-Chitimacha-Choctaw Tribe gave the following statement:

“When the resettlement plan was approved and funded by the U.S. Department of Housing and Urban Development, we agreed to it based on our understanding that part of the agreement was that IDJC would be left to nature, meaning no improvements or services would be provided to IDJC over time, and it would ultimately be consumed by water [...] However, now that the resettlement has been funded, we see improvements being made to our Island Road, and fishing piers with parking were built. Our school was recently shut down – we were told it didn’t make sense to keep it open. ... It seems IDJC is slated to become a recreational sporting island. I am here tonight because the Dupont land is being sold as campsites. This is profoundly unsettling. Our Tribe was strongly encouraged to leave our homes, and we were told that, if we stayed, we’d have no help or services there. Now, we’re finding out that the land is being repurposed, and seemingly redeveloped for private recreational use” (Naquin 2021).

The disconnect between stated policies, co-authored by community members and intentionally respectful of the Island’s history and significance, and the reality of implementation hindered by negotiations over land sales indicate limited success in risk-mitigation through land-based resettlement policies. Regardless of whether or not the sale of lots to A.M. Dupont Corporation takes place, rumors

have already affected the implementation of the Resettlement of the Isle de Jean Charles; the negotiations have fueled skepticism by residents towards the resettlement agency, contributed to certain residents' reluctance to leave the island, and further a conspiracy theory that "private money is at the roof of the relocation effort" (Varney 2021). Although complete resettlement is still underway, risk-mitigation strategies to address landlessness are successful in design but currently limited by the pace of progress that is prolonging the potential for residents to relocate to The New Isle and neglect community-centered plans for the Island to be returned to nature.

B. Joblessness to Reemployment

"The economic model for the new residents is complicated and feels like a structural challenge that needs to be addressed outside of the team for future relocation efforts. It's not entirely clear that these residents will be able to afford living at their new properties, or when/if revenue generation meets the financial goals of the project how we ensure residents have been provided with an environmentally and financially stable community." (Louisiana Office of Community Development 2021)

The effects of losing employment and income are long-term, as under/unemployment among resettled residents often remains after physical relocation is complete. In the case of the Isle de Jean Charles, employment has been historically tied to the island itself: when the IDJC's first inhabitants settled, they worked as fishermen, oystermen, or trappers. Most island residents continued to seek jobs from the fishing and shrimping industries until the impacts of oil development around the island and the 2010 Deepwater Horizon oil spill disrupted the island's ecology and subsequently, islanders' source of subsistence and employment. In 2013, three years before being awarded their grant to resettle, the residents of the Isle de Jean Charles could sense the impacts of the Deepwater Horizon oil spill that occurred three years prior. "'Come to Louisiana. Everything is fine,' say the BP ads. Well, they're not fine. There are no oysters. There are no shrimp" (Stewart 2013). The people of the Isle de Jean Charles recount personal memories and oral histories of oil development impacting employment on the island.

"I used to leave every morning, go out and catch some fish on the line. I paid my bills fishing, just with a rod and reel. When I was able to make a living by fishing, I wasn't making a killing; but my bills were paid. I try not to live beyond my means. I've made my living off the water, but since the [2010 Deepwater Horizon] oil spill, it's been hard. There are no crabs and no shrimp. There's no fish, hardly. In the last five years we've struggled to catch fish down here." (Dardar 2014)

Given the connection between employment and place for IDJC residents, risk-mitigation strategies to address reemployment during resettlement is critical for an effective and socially just relocation process. As described as a displacement risk-mitigation strategy by Michael Cernea and a more sustainable means of compensation by many others, the provision of employment or land allows for long-term income-generation and should be provided to resettled populations (Cernea 2004; DaCosta and Turner 2007; Edwards 2013). During a discussion on preferred site characteristics for the New Isle, the resettlement team's first community meeting, residents explained that access to work and the economy is important and that they would like better transportation options to access job opportunities near the New Isle. Comments from the fifth community meeting underscored these preferences: participants

mentioned their need for “revenue streams, jobs, and training to offset expenses” and interest in “in light manufacturing jobs,” “outdoor family dining, interest in outdoor family dining, seafood or farmers’ market, retail area, grocery store, hardware and an outdoor store” and “the concept of a commercial kitchen” (Louisiana Office of Community Development 2021).

Concerns that new expenses incurred on the New Isle (higher property taxes, insurance, etc.) would strain the incomes of island residents and lead to the loss of their new homes, services, and even bring about a second displacement are made clear in household survey responses and community meeting reports. The Office of Community Development incorporated these comments and preferences into their Master plans and community reports, asserting that “as a physical development, the new community will feature low-impact development techniques, facilitate revenue-generating opportunities benefiting the community, provide access to vital services, and enhance current and future employment opportunities for residents. In short, it will be holistic community development.” (Louisiana Office of Community Development 2021, 2). Commercial sites are integrated into master plans for the New Isle to provide community revenue and employment opportunities – acknowledgement that island residents are predominantly low-income motivates the team’s goals to develop revenue sources and employment opportunities in the new community. To address fears of impoverishment and strained incomes due to increased expenses on the New Isle, the resettlement program policies was adjusted to “allow for possible exceptions to the primary residence requirements provided on a case-by-case basis arising from hardship beyond the homeowner’s control” (Louisiana Office of Community Development 2021, 2).

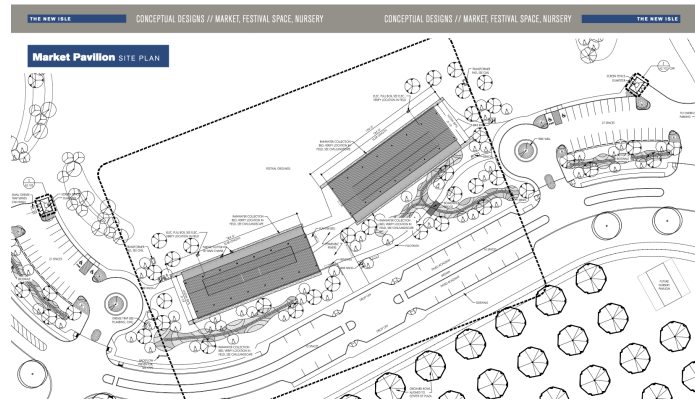


Figure 5: Two large open-air market pavilions will shelter sixteen individual bays, designed to accommodate future build out of retail spaces and reference the form and aesthetic of historic open-air markets. Source: Isle de Jean Charles Resettlement Phase 2 Report, Office of Community Development 2021

Despite thorough acknowledgement of the significance of economic planning and reemployment as a requirement for impoverishment risk mitigation, the outcomes of these efforts are stated intentions and still uncertain in practice. Enterprises such as a solar energy farm, assisted living facility, and recreational park were investigated for their potential to generate income for residents of the New Isle. The New Isle’s master plan includes design plans for two large open-air market pavilions situated between an event space and a proposed orchard/nursery. “The market sheds are intended to be a unique retail and cultural destination along [highway] La. 24” and signal the potential for future incorporation of income revenue streams on the New Isle. Similar to the assessment of risk mitigation attempts of ‘land based settlement’ in the previous section, the potential success in addressing joblessness through its correlated counteraction of reemployment, the implementation of the risk-mitigation strategies described above proves to be limited delayed timelines and unkept promises by the resettlement team. Despite the purchase of land for the New Isle occurring three years ago and

initial timelines guaranteeing resident relocation to being complete 2020, residents are still waiting to move in and engage in the new employment mechanisms outlined in the masterplan (“IsleDeJeanCharles.La.Gov” 2016).

Although the resettlement policy guarantees houses for free, concerns over the likely increasing home expenses that some residents expressed concern over are valid; Intentional provision of employment is critical for long-term income-generation and maintaining the sustainability of life on the New Isle. The COVID-19 pandemic already has affected the employment of some island residents, many of whom were already struggling financially (Dermansky 2020). Structural changes, within and beyond the policies of the resettlement project itself, are needed to ensure the long-term risk mitigation of joblessness for residents of the Isle de Jean Charles and future relocation efforts.

C. Homelessness to House Reconstruction

“The design process [for house construction] was grounded in observation, dialogue, listening, and iteration. Designers took inspiration from islanders and worked to integrate the island’s culture and natural beauty into The New Isle’s design.” (Louisiana Office of Community Development 2021)

Loss of shelter signifies the loss of home, cultural space, and community; if left unaddressed, this can result in a lasting sense of placelessness, alienation, and status-deprivation. Beyond the climate-induced degradation of land from the Isle de Jean Charles, residents have experienced the repeated impact of increasingly severe storms on their homes. Such storms make the Isle de Jean Charles unlivable – most recently, Hurricane Ida decimated the few remaining homes on the island, leaving some structures unrecognizable and the only road on the island flooded (Baurick 2021). Albert Naquin, chief of the Isle de Jean Charles band of the Biloxi-Chitimacha-Choctaw Tribe described the toll that the storm took on the island’s building as he surveyed the island:

“Well, this house, it’s still there, but the roof is gone and the doors are gone. And this guy, he told me to deliver some stuff to his house, but there’s no house. ... And that house, it was already gone. It blew away with [Hurricane] Zeta [in October].” (Baurick 2021)

Naquin estimated that more than half of the 15 homes with full-time residents were either destroyed or damaged beyond repair by Hurricane Ida in August of 2021. According to the Resettlement Team’s master plan, homes in The New Isle are being designed with “resilience to environmental hazards and for long-term sustainability,” so that residents and their homes don’t experience the same devastation in the New Isle. In fact, despite being incomplete, the foundations of houses on New Isle fared well during the same storm, according to Louisiana Office of Community Development Executive Director Pat Forbes; “The crazy thing is we didn’t have any houses that were completely enclosed, you know, with doors and



Figure 6: Hurricane Ida decimated the few remaining homes on the island, leaving some structures unrecognizable. Source: Setyawan 2021

windows and everything. And, yet, we had really minimal damage” (Setyawan 2021b). The following precautions and design mechanisms are being implemented in the construction of each house:

- Construction above the elevation of the “500-year” floodplain (0.2% chance of being flooded annually) and raised floor construction
- Certification by the U.S Department of Energy as Fortified Gold standard – signifying that the houses exceed building codes to better resist future high wind and rain events.
- Certification of Energy Star standard – signifying that houses reduce energy consumption, conserve water, and offer immediate monthly savings to homeowners through energy efficiency
- Incorporation of sealed roof deck, roof vents, and other intentional features in the construction of walls, windows, and doors to provide resistance to wind pressure and impact from windborne debris.

The Resettlement plan calls for current island residents or those who have moved off the Isle de



Figure 6: Partially constructed houses on the New Isle fared well after Hurricane Ida Source: Setyawan 2021

Jean Charles after August of 2012 to have the climate-ready houses described above to be built for them in the New Isle. Of the 42 households eligible, 37 applied to participate in the program, and will be provided with 1-4 bedroom homes that were designed and developed based on residents’ preferences and feedback in community meetings and household survey responses. After residents emphasized the need to maintain access to nature from every residential lot, the design team planned for lots in an “alternating petal layout creates clusters of homes to give a sense of community” (Louisiana Office of Community Development 2021) When residents expressed a

preference to “live off the ground, as is historically typical and climatically appropriate in the region, but low enough to stay connected to the landscape and outdoor spaces,” house blueprints were drawn accordingly. Descriptions like these and blueprints for houses on the New Isle indicate intentional consideration of the preferences of community members. In this way, resettlement efforts prove to not only be successful in risk-mitigation against homelessness through house construction but also indicate a level of cultural awareness, community respect, and sustainable development that should be used as a model for future resettlement projects.

As described earlier, initial timelines by the resettlement team estimated resident relocation to be complete by 2020 (“IsleDeJeanCharles.La.Gov” 2016). Timelines were significantly delayed, with construction of the houses on the subdivision beginning two years behind schedule, in May of 2020. Given that risk-mitigation against homelessness was arguably the main component/requirement of the Isle de Jean Charles’ policies, island residents showed justified frustration at the pace of progress of house construction on the New Isle. “It’s been 5½ years, and they’re just starting to put the foundation down for the first house,” said Johnny Tamplet, a 66-year-old island resident. “And this is supposed to be the showcase for moving a community that’s vanishing because of global warming?” (Varney 2021). As of February 2022, construction of the houses is nearly complete, “with houses getting primed for

painting and windows ready for installation, so that residents are fully moved in by the summer” (Setyawan 2022). Residents were able to see the foundations of their new homes in January of 2022. Father Roch Naquin, a lifelong resident of the Isle de Jean Charles “walked through his incomplete house and blessed it. Naquin said that he thought the homes were very well built. ‘I was impressed by what I saw and how it was structured’” (Setyawan 2022). Positive feedback from residents during site visits to the New Isle suggest the potential for the resettlement team to gain back community trust and faith in resettlement progress if residents are able to move into the constructed houses by Spring of 2022, as announced in the most up-to-date relocation timelines.

D. Marginalization to Social Inclusion

“We worry that the state of Louisiana’s vision for a resettlement is assimilationist and more about moving people from the coast without taking the care to preserve and strengthen social relationships and distinct traditional ways of life that have been strained throughout this intergenerational crisis of land loss.”
(Biloxi-Chitimacha-Choctaw Tribe and Tribal Council 2019)

Loss and transition of home, cultural space, employment, and community can often result in social marginalization – a facet that is often overlooked in resettlement planning, but given the demographics of the Isle de Jean Charles, has been acknowledged by the Resettlement team throughout the relocation process. According to Tribal Chief Albert Naquin, this is not the first relocation experienced by the Biloxi-Chitimacha-Choctaw people; members of the tribe arrived on the island in the 1830s in an attempt to flee the Indian Removal Act and subsequent Trail of Tears that forcefully relocated indigenous communities west of the Mississippi River. Given this history, the state’s expressed purpose in the outset was to plan and design a relocation that would reflect the values of the Isle de Jean Charles people and emphasize “residents’ self-determination. Guided by an understanding of their expressed priorities, needs and concerns, the new community will reflect the Isle de Jean Charles people’s values, cultural affiliations and economic objectives” (Louisiana Office of Community Development 2020). Despite the intentional incorporation of resident involvement in the design, planning, and implementation process of the resettlement, skepticism regarding this state-led effort fueled by histories of marginalization is pervasive and has already impacted the implementation of IDJC’s resettlement policy. Enduring memories of the state ceasing Native land inform resident perception of this project.

Trends of distrust towards the IDJC Resettlement Team and state/federal government are made clear through community survey responses, anecdotes from journalist interviews, and tribal news releases. In one community interview, a resident asked “since we Indians, why everytime they gotta bulldoze everything and move us?” (Simms et al. 2021). The themes of this question were heard throughout the planning process – from start of the grant application process, mistrust surrounding the state’s prospects for the Island and government involvement with resettlement were pervasive. “We learned a long time ago not to trust when they came with paper and a pen,” one resident explained to a journalist, referring to a story reiterated by many residents – that their great grandparents were tricked into signing papers and unknowingly losing rights to their Native land (Krol 2018). Anecdotes like

these signal the justified skepticism against federal intervention by IDJC residents, rooted in a legacy of marginalization against Native communities.

In a press release on behalf of the Isle de Jean Charles Biloxi-Chitimacha-Choctaw tribe regarding the shift of the intended focus of the resettlement project from the tribal community to all residents of the island, Chief Albert White Buffalo Naquin asserts “that The Isle de Jean Charles Tribal Resettlement project “no longer meets the goals and objectives set out by the residents and IDJC Tribe. The changes are so much so that I have begun to question my ability to be a part of the project committee due to what I believe are unjust actions and proposals set forth in the IDJC Permanent Relocation Project” (Naquin 2018).

“Since the HUD award was announced in early 2016, state planners have steadily erased our role as leaders of the resettlement process, excluded our Tribal leadership from decision-making, disregarded Tribal protocols during community engagement activities, proposed we give up our Island home and that the new land be opened to public auction or to house other so-called ‘climate refugees’ from throughout the coast. Moreover, planners have exacerbated tensions within our Tribe. Today, our Tribe is left with growing uncertainty and empty hopes. Our Tribal Council and many of our citizens are increasingly concerned that the State is abandoning its commitment to support our Tribe’s distinct vision articulated in the funded grant proposal and is undermining our efforts to preserve our cultural heritage, improve economic conditions, enhance our cultural resilience, and protect our rights through the resettlement process. We worry that the state of Louisiana’s vision for a resettlement is assimilationist and more about moving people from the coast without taking the care to preserve and strengthen social relationships and distinct traditional ways of life that have been strained throughout this intergenerational crisis of land loss.” (Biloxi-Chitimacha-Choctaw Tribe and Tribal Council 2019)

Despite the Office of Community Development’s expressed efforts to incorporate and emphasize “residents’ self- determination” and create a “new community that reflect the Isle de Jean Charles people’s values, cultural affiliations and economic objectives,” comments from tribal leadership such as those above prove an inherent disconnect between visions of just resettlement as defined by the state and the Island’s native communities. In its current state, HUD’s grant was awarded to the state of Louisiana’s Office of Community Development, rather than the tribe itself. In removing direct agency from tribal leadership by way of this funding distribution formula, tribal self-determination is already foregone and so are efforts towards a purely just and community-led relocation. To some, distrust towards the resettlement team and government intervention is insurmountable; a few residents have expressed a potential refusal to relocate according to the Resettlement project, and Chief Naquin explained to a reporter that, because the “tribe hasn’t directly received a penny of the grant [he is] trying to find new funding to help realize its original resettlement plan” (Dermansky 2019). In a site visit by DeSmog journalist Julie Dermansky, Chief Naquin and other residents highlighted the offense taken at the perceived lack of transparency between State offices and tribal leadership. Despite being involved with the project since its inception, Chantel Comardelle (the Tribe’s executive secretary) reported that she “received no direct notification” when the land for the New Isle was purchased; “The State has no respect for our culture,” she explained shortly after an announcement about the land deal (Dermansky 2019). This perceived lack of respect for tribal self-determination feeds into and

compounds skepticism regarding government-led resettlement. “The government breaking deals with tribes is nothing new [...] The government should take the money back and leave the Tribe alone.” Chief Naquin remarked (Dermansky 2019).

Community distrust towards the Resettlement Team and grant, informed by historical and ongoing marginalization, is affecting the Resettlement of the Isle de Jean Charles in hindering its success towards maximum participation and community faith in the project. According to the Impoverishment Risks and Reconstruction (IRR) model for resettling displaced populations, risks of marginalization in relocation efforts can be addressed through strategies of social inclusion. The described community attitudes towards the project, however, poses an important limitation of social inclusion as a risk-mitigation strategy against the legacies of historical marginalization. Particularly for a community like the Isle de Jean Charles, whose residents will hold memories of institutional oppression, forced resettlement, and large-scale genocide, attempts at social inclusion by the Office of Community of Development’s resettlement team have been and will likely continue to be tainted by disbelief and distrust towards government agencies. Countless aspects of the Resettlement of the Isle de Jean Charles were directly informed by community members – the project team worked with a steering committee, comprised of representatives from various sectors of the island community and tribal members from the Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation, held island-wide community meetings to prioritize resident preferences in designs for the New Isle, and attempted to maintain transparency throughout the planning process.

Despite apparent success in social and political inclusion, incomplete risk-mitigation against marginalization not only serves as a limitation in the implementation of the Resettlement of the Isle de Jean Charles but also suggests a need to update the IRR model. The consideration of risk-mitigation strategies beyond social inclusion that incorporate a more nuanced understanding of the manifestations of marginalization in resettled communities.

E. Food Insecurity to Adequate Nutrition

“The waters, and the bountiful resources they historically provided Tribal members, have been forever changed. [and] has had a drastic effect on Tribal members' income and ability to be self-sufficient. [...] Tribal members struggle with the increased cost of living from having to shop for the food they once readily harvested.” (IDJC Biloxi-Chitimacha-Choctaw Indians of Louisiana n.d.)

Relocation often increases the risk that resettled populations will fall into patterns of food insecurity, hunger, and undernutrition. Given the connection between land and subsistence for the residents of the Isle de Jean Charles, this risk is even more pertinent. Residents who are a part of the Biloxi-Chitimacha-Choctaw community have maintained historical traditions, engaging in subsistence living on their ancestral lands. When they first settled, agricultural produce such as corn, beans, squash, and melons were grown and supplemented by hunting – now, land used to hunt animals and farm is open water (The Cultural Landscape Foundation 2019). Jamie Dardar, a lifelong IDJC resident explains his reliance on the island to secure food (and employment).

“I never bought seafood from a store ever, ever. I always caught my own, which everybody down here did. I go shrimping in the little bushes across from here. I cut them down and run shrimp on a string, with what they call a bush line. I also fish soft-shelled crab off of that. I pull it up, shake it and have soft-shelled crabs because they go in the bushes to “pop” off their shells.” (Dardar 2014)

Island residents stressed the importance of food security and independence during household survey interviews carried out by the resettlement team. In response to a question asking about what about the island is most important to their quality of life, one island resident responded “steady supply of seafood. Oysters, shrimp, crab, fish being ‘out the back or the front’ never [let us] go hungry. This is the no. 1 thing for generations” and another simply wrote “access to fresh seafood. There is no way to replace it.” (Louisiana Office of Community Development 2016). Many residents expressed their desire to be as self-sufficient as possible, catching seafood and growing food on site and being able to sell it to maintain financial independence. Access to shrimping, fishing, food markets, gardening, and communal spaces to share food were all top listed priorities in response to the question “What is most important to your quality of life?” in household surveys (Louisiana Office of Community Development 2016).

Conceptual designs for the New Isle attempt to partially incorporate these preferences and feedback through plans for two large open-air market pavilions and a proposed orchard/nursery. However, descriptions of these spaces as intended “retail and cultural destinations along La. 24” hint to a priority of economic stability over food security (Louisiana Office of Community Development 2021). The incorporation of man-made ponds stocked with fish similarly confuses the priority of shrimping and fishing on the island for a source of recreation, rather than the source of food security that it is:

“The pond and trails surrounding the [Community Center] provide an instructive site for an ethnobotany trail and culturally significant regional flora [...] The New Isle’s design highlights the strong connections between culture, ecology and water. The lake will be stocked with fish and can be a recreational amenity and drainage basin” (Louisiana Office of Community Development 2021).

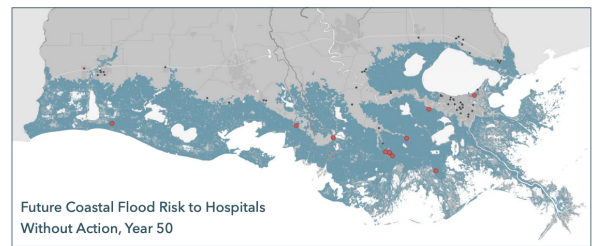
Based on anecdotes from journalistic interviews and responses to household surveys, access to water and fishing signifies more than access to recreation or employment – practices of fishing and shrimping are seen as a source of self-sustained food security, an independent act of subsistence passed down generationally and maintaining Native connection to the land. Particularly given the demographics and histories of many Isle de Jean Charles residents, risk components of this resettlement project are somewhat intersectional and suggest the need for multidimensional risk-mitigation strategies to address related risks such as marginalization, landlessness, food insecurity, and employment that are all closely tied to the community’s attachment and use of the island itself.

In its most basic form, risk mitigation against food insecurity is addressed in the Resettlement of the Isle de Jean Charles; 9 groceries are within a 15-minute driving distance from the New Isle and dozens more exist within a 20-minute driving radius of the new community. Relative to the IDJC, whose sole grocery store is now closed and the sole connecting road to the mainland (and other sources of food) is

often impassable due to flooding, food is accessible from the New Isle. The land itself has also been in agricultural use for the past 200 years, has fertile soil that continues to produce sugar cane crops, and could be further developed into farmland. Still, the lack of intentional incorporation of subsistence farming and fishing in the New Isle causes risk mitigation attempts toward adequate nutrition to forgo cultural legacy and certain community preferences.

F. Increased Morbidity to Improved Health Care

Large-scale resettlement projects are often accompanied by health risks such as displacement-induced social stress, psychological trauma, and outbreaks of relocation-related illnesses. Given the proximity between the relocation site and Isle de Jean Charles, resettles are at lower risk for illnesses described in the Impoverishment Risks and Reconstruction model, such as malaria, schistosomiasis, and dysentery (Cernea 2004). Still, improved health care serves as important guidelines for the successful implementation of displacement risk-mitigation in the context of the Resettlement of the Isle de Jean Charles. More specifically, improved *access* to healthcare was a preference expressed by Island residents during community meetings and through household surveys. Islanders conveyed their excitement to have “access to other towns: for health, culture, hospitals, center for elderly folks” and the importance of gaining access to “health/ hospital/ wellness centers” in the New Isle (Louisiana Office of Community Development 2016). Diminishing access to health care is an increasingly prevalent issue for residents of coastal Louisiana. In a study on Coastal Flood Risk and Resilience for the Louisiana Department of Health, researchers found that, “15% of hospitals in coastal Louisiana could be impacted by coastal flooding (11 hospitals)” in the next 50 years (Coastal Protection and Restoration Authority and Economics & Policy Research Group 2020). As businesses, local government services, and hospitals continue to close and rebuild on higher ground away from high risk areas, the coastal communities they once served are often left looking for services like health care that are no longer available where they live (Fazey et al. 2021).



Future Coastal Flood Risk to Hospitals Without Action, Year 50

- 1 - 2 feet of coastal flooding
- 2+ feet of coastal flooding
- Hospitals at risk of coastal flooding
- Hospitals at higher risk of coastal flooding

Figure 7: 15% of hospitals in coastal Louisiana could be impacted by coastal flooding in the next 50 years. Source: Coastal Protection and Restoration Authority and Economics & Policy Research Group 2020

Risk mitigation through health care access is successfully addressed in the Resettlement of the Isle de Jean Charles; 5 health care providers are within a 30-minute driving distance from the New Isle, including the Thibodaux Regional Health System that is located just 13 minutes away (7.2 miles) from the subdivision. In contrast, the closest hospital to the Isle de Jean Charles, Lady of the Sea General Hospital, is 40 miles away (a 51 minute drive) in Lafourche Parish and the sole connecting road to the mainland (and all health care access) is often impassable due to flooding. In choosing a relocation site that is more accessible to hospitals, the Resettlement team is successful in addressing risks of morbidity through improved health care for island residents.

G. Loss of Access to Restoration of Common Property Resources

We see resettlement as the best way to reunite our displaced tribal members and rekindle our traditional life-ways. Our relationships, ways of life, networks of care, and identity will be supported in a community center, museum, and gathering areas (IDJC Biloxi-Chitimacha-Choctaw Indians of Louisiana n.d.)

The displacement of resettled populations is inevitably accompanied by the loss of access to the common property assets that once belonged to the community. Physical relocation away from water bodies, burial grounds, farmlands, and other common property resources (CPRs) can result in disruptions to sources of income, culture, and livelihoods (as detailed in sections on *Joblessness*, *Landlessness*, and *Food Security*). Beyond the success and limitations in addressing common property resources of water/fishing for employment and subsistence farming that are described in these prior sections, the Resettlement of the Isle de Jean Charles attempts to address common areas through design of the New Isle.

Through household surveys and site visits, the design team observed that “strong community connections on the island are maintained through gatherings at and outside individual homes” (Louisiana Office of Community Development 2021). Restoration of CPRs is attempted through the integration of recreational spaces for gathering in and around each home, and a “requirement for a natural park space within five minutes’ walk of each home” – playgrounds, pavilions, open fields, and gardens are incorporated into the master plan of The New Isle, in addition to a community center intended to host large group gatherings (Louisiana Office of Community Development 2016). In community meetings and household surveys, island residents express interest in restoration of common property resources from the New Isle such as water for crabbing/fishing, land for farming, and common areas for communal gathering and recreation. The potential for fertile former-agricultural land to be turned into common farmland and stated plans for common gathering spaces throughout the community prove potential success in implementing strategies of these aspects of CPR restoration on The New Isle. However (as mentioned in assessments of risk mitigation strategies against food insecurity and employment) the lack of intentional incorporation of natural water bodies that maintain the potential for subsistence fishing, a critical CPR of Isle de Jean Charles residents, causes risk mitigation attempts toward CPR restoration to forgo cultural legacy and certain community preferences.

H. Community Disarticulation to Network Rebuilding

“As the people leave, our culture goes with it. We are looking for a place where we can be a community. That means a place where we can care for each other, celebrate with each other and be together as family and friends on a daily basis.” (Hasemyer 2016)

Physical resettlement can threaten the social networks that are attached to place, “tear apart existing social fabric” and disrupt norms of social organization and kinship (Cernea 2004). The residents of the Isle de Jean Charles have already begun to experience the community disarticulation that relocation can bring; climate-change related problems have affected displacement on the island

since 2012, when Hurricane Isaac hit the region and pushed out residents from dozens of households off the island. From the outset, leaders of the Biloxi-Chitimacha-Choctaw group have seen the Resettlement of the Isle de Jean Charles as an opportunity to reunite members of their tribe that have been forced to leave the island over the past decade. Chief Albert Naquin described his enthusiasm regarding the future of his tribe when they moved to The New Isle, saying “I’m very, very excited. Now we’re getting a chance to reunite the family. ... They’re excited as well. Our culture is going to stay intact, [but] we’ve got to get the interest back in our youth” (D’Angelo 2016). In providing a new setting for the IDJC residents to reconnect and live together once again, the Resettlement of the Isle de Jean Charles seemingly addresses risk-mitigation through network rebuilding. However, tensions among island residents and their tribal affiliation poses a challenge to the cohesive creation of community that the Isle de Jean Charles could offer.

Although the indigenous residents of the Isle de Jean Charles share similar cultures, they claim two different affiliations: the IDJC Band of Biloxi-Chitimacha-Choctaw Indians and the United Houma Nation. Despite this, only one tribe name (Biloxi-Chitimacha-Choctaw Indians) was named in the relocation grant. The failure to acknowledge the United Houma Nation’s presence on and cultural ties to the Island triggered immediate discontent towards the resettlement project. In an interview, Pat Forbes, Executive Director of the Office of Community Development and the resettlement team explained that, shortly after IDJC was awarded the grant from HUD in 2016, he learned that there were stakeholders on the island other than members of the Biloxi-Chitimacha-Choctaw tribe, including members of the United Houma Nation (UHN) and residents not affiliated with any tribe (Dermansky 2019)). The United Houma Nation wrote to Louisiana Governor John Edwards in 2016, stating that they were “shocked that we were never informed” about the grant or relocation and that 34 of its 18,000 tribal members live on the island but “were not brought to the table” during discussions regarding the resettlement (Krol 2018). Henceforth, the Resettlement of the Isle de Jean Charles, in policy language and implementation, was reframed to address the entire IDJC community, rather than solely members of the BCC tribe.

“We won’t restrict who can buy and build a house in the new community. We understand the IDJC’s desire to reunite everybody, but that’s not how we can run the project. The state is bound by the federal Fair Housing Act to treat everybody [who lives on the island] the same.” (Krol 2018)

While federally recognized tribes are exempt from FHA’s requirements, none of the tribes on the island are federally recognized. The lack of UHN consultation by the federal or state government compounded the frustration between tribes, skepticism towards resettlement agencies, and even resulted in BCC Tribal Chief Naquin recommending that grant funds be returned to the Housing and Urban Development department. Ultimately, this proves to be another limitation in the resettlement team’s risk-mitigation strategies against community disarticulation. After sparking intertribal feud, the state of Louisiana admitted its failure to perform tribal consultation in the grant process and issued a statement to correct its error and allow UHN citizens and all other island residents to participate in relocation (A. C. Creppelle 2020). Federal agencies have an obligation to consult with tribes when engaging in activities that can impact their land, culture, or resources (Seminole Nation v. United

States, 316 U.S. 286 1942). Although several federal laws explicitly require tribal consultation, federal and state agencies routinely fail to respect tribal sovereignty. The lack of federal recognition of the Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation described in Part IIIb furthered the absence of enforcement and respect for an official tribal consultation, which could have worked to maintain or restore community articulation and connection between the United Houma Nation and Biloxi-Chitimacha-Choctaw tribe.

I. Key Findings from Data Analysis

Given findings from data analysis and categorization of findings into Cernea's deconstructed displacement risks, the following key themes and findings are identified:

1. The Resettlement of the Isle de Jean Charles is successful in integrating values and attachment-to-island expressed by Isle de Jean Charles residents and shows impressive effort in incorporating comments and feedback during household surveys and community meetings into plans for the New Isle. Examples of successful integration of community values into the master plan include
 - Integration of values and attachment-to-land expressed by IDJC residents in plans for the island after resettlement
 - Exceptions allowed to the primary residence requirements on a case-by-case basis arising from hardship beyond the homeowner's control
 - Integration of commercial sites into master plans for the New Isle for provide community revenue and employment opportunities
 - Design plans for two large open-air market pavilions situated between an event space and a proposed orchard/nursery, requests explicitly requested in community group meetings
 - Incorporation of community gathering spaces and communal lands near each home (within 5 minute walk of each house)
 - Fertile soil on the New Isle that continues to produce sugar cane crops and could be further developed into farmland, restoring a common property resource from the Island that was valued by many island residents for subsistence farming; and
 - Generally, intentional incorporation of resident involvement in the design, planning, and implementation process of the resettlement
2. Risk mitigation through house reconstruction so far proves to be successful in designs to avoid flooding, hurricane risks, etc. Houses on The New Isle are being designed with resilience to environmental hazards and for long-term sustainability, including the following:
 - Guaranteed provision of climate-ready houses to all current island residents or those who have moved off the Isle de Jean Charles after August of 2012; and
 - Cultural awareness, community respect, and sustainable development indicated through incorporation of feedback from community meetings and household surveys into design plans

3. Location of the New Isle aids success in expanding access to public resources and consequently, risk mitigation strategies against food insecurity and improved healthcare, such as:
 - 9 groceries located within 15-minute driving distance from the New Isle (dozens more exist within a 20-minute driving radius); and
 - 5 health care providers located within <30-minute driving distance from the New Isle
4. Unkept promises and lack of transparency between the Resettlement team and residents of the Isle de Jean Charles limits the trust and compliance with voluntary resettlement, thus hindering the success of risk mitigation attempts and implementation of the resettlement project. These include the following:
 - Potential upcoming private development on island to create seven adjacent recreational lots for campgrounds. Development caused tribal leadership to speak out against and lose faith in the resettlement project, and:
 - Existing skepticism against government intervention by Native American residents that informs resident perception of the resettlement project and proves the need for intentional consideration, community involvement, and transparency with island residents.
5. Lack of intentional incorporation of ancestral food practices on the New Isle, including subsistence farming and fishing, limits the cultural sensitivity risk-mitigation attempts toward common property resource restoration, reemployment, and adequate nutrition, such as:
 - Limited restoration of common property resources and connections to place despite attempted recreation of key features of the Isle de Jean Charles. This underscores a reality of the irreplicability of cultural attachment to place through resettlement policies
6. The pace of progress and failure to align with promised timelines has limited the complete implementation of various risk mitigation strategies by making the outcomes of intended components of the resettlement project uncertain and causing justified frustration at intermediate rounds of relocation needed due to the unlivable state of the island. This involves the following:
 - • Delays in implementation – initial timelines guaranteed relocation to be complete by 2020 and the foundation for first set of houses was only set in Fall of 2021; and
 - Plans outlined in Key Finding 1 are successful in their intention, but outcomes are left uncertain due to the ongoing nature and consistent delays in the resettlement project.
7. Failure to achieve tribal consultation damaged relationships between tribal communities on the island and between the resettlement team and island resettlement, such as:
 - Lack of acknowledgement of the United Houma Nation’s presence on the island compounded the frustration between tribes and exacerbated the disconnect between island residents and the resettlement team; and
 - Expansion of the resettlement effort and policy away from a tribal focus by The Office of Community Development’s; this initiated a loss of trust from BCC leadership and even triggered requests that grant funds be returned to the federal government.

VII. Broader Implications and Policy Recommendations

While the data analysis articulated can and should be used to inform an inevitable future of climate-driven relocation, it also underscores the necessity of structural policy changes to address climate adaptation, mitigation, and migration policies for large-scale and sustainable change. The key findings from data analysis described above inform recommendations to federally recognize Isle de Jean Charles tribes (Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation), improve enforcement and standards of tribal consultation requirements, and establish federal climate migration protocol /consistent provision of federal funding.

A. Federal Recognition of IDJC Tribes

Prior to receiving funding from the U.S Department of Housing and Urban Development, Isle de Jean Charles residents received little federal assistance when storms hit the Island. In 2012, when Hurricane Isaac hit the region, dozens of households were displaced and forced to relocate with little coordinated federal aid. Although the tribes are recognized by the state of Louisiana, they do not meet the Bureau of Indian Affairs' criteria for federal recognition (as detailed below)– and therefore lack eligibility for organized and community-wide assistance from the Federal Emergency Management Agencies and the Bureau of Indian Affairs during such storms. Given the lack of federal recognition of the Biloxi-Chitimacha-Choctaw and United Houma Nation, members of these groups cannot directly seek resources available to other indigenous groups, such as federal assistance by requesting a presidential emergency or major disaster declaration. Efforts towards relocation for the UHN and BCC are therefore reliant on state-level organizations like the Office of Community Development utilizing federal block grants such as Housing and Urban Development's \$48.3 million grant for the Resettlement of the Isle de Jean Charles.

Federal recognition is the strongest position that a tribe can occupy, by allowing federal law to consider tribes to be treated as “domestic dependent nations” and therefore allowing tribal sovereignty, self-determination, and agency over their natural resources (A. Crepelle 2018). The FEMA Tribal Policy “outlines a commitment by the Agency to enhance its nation-to-nation relationship with federally recognized Indian tribal governments, and to ensure FEMA works with Tribal Nations to build, sustain, and improve their capacity to prevent, protect against, mitigate, respond to, and recover from all hazards” (Federal Emergency Management Agency, n.d.).

Currently, in order to be entitled to federal recognition, a tribe must be able to prove the following (U.S. Department of the Interior 2015):

1. It has been identified as an American Indian entity on a substantially continuous basis since 1900;
2. A predominant portion of the petitioning group comprises a distinct community and has existed as a community from historical times until the present;
3. It has maintained political influence or authority over its members as an autonomous entity from historical times until the present;
4. It has provided a copy of the group's present governing document including its membership criteria;

5. Its membership consists of individuals who descend from an historical Indian tribe or from historical Indian tribes that combined and functioned as a single autonomous political entity, and provide a current membership list;
6. The membership of the petitioning group is composed principally of persons who are not members of any acknowledged North American Indian Tribe; and,
7. Neither the petitioner nor its members are the subject of congressional legislation that has expressly terminated or forbidden the federal relationship.

In 1995, the Biloxi-Chitimacha-Choctaw filed for federal recognition – however, to meet these seven criteria for acknowledgement, tribes must document their existence “through a variety of means, including blood quantum requirements, Federal census records, maps or oral history” (Talamo 2016). Such extensive documentation is challenge for the residents of IDJC; “When the tribe moved [onto the island], we didn’t tack a note to a tree,” Chief Albert Naquin explains – “we know where we come from, but we have to prove we’re a historical tribe, and census records are hard to find” (Talamo 2016). Similarly, the United Houma Nation’s petition to federal recognition was denied in 1994 because of their failure to prove that it was a unified community that descended from a tribe named Houma (Bowman 2021). “We are being held to the standard of European documentation,” explained Houma tribal administrator Lanor Curole (Bowman 2021).

Problematic and seemingly arbitrary standards for federal recognition have repercussions on federal resource distribution and the lives of tribal communities like those living on the Isle de Jean Charles. Congress has the power to establish and update criteria for tribal recognition either directly or by delegation to the executive branch (Katz 2003). Adjusting the criteria for federal recognition and/or expanding the qualification criteria for federal assistance during natural disasters can aid the residents of the Isle de Jean Charles and other unrecognized native groups during climate crises, particularly as a short-term resolution to implementation challenges described above. A repeated theme in the risk-mitigation assessment above is frustration and intermediate displacement due to the pace of progress of construction of the New Isle. Federal recognition of the BCC Tribe and UHN could mitigate the transitional displacement risks faced by residents through federal assistance and alleviate the challenges brought on by limited implementation in this regard.

B. Improved/Enforced Standards of Tribal Consultation

Although the Island de Jean Charles is populated by members of the Biloxi-Chitimacha-Choctaw Tribe and United Houma Nation, initial failure to acknowledge the United Houma Nation’s presence on and cultural ties to the Island triggered immediate discontent towards the resettlement project. As discussed in Data Analysis, official tribal consultation could have worked to maintain/restore community articulation between the United Houma Nation and Biloxi-Chitimacha-Choctaw tribe and trust between tribal leadership and state resettlement agencies.

Federal agencies have an obligation to consult with tribes when engaging in activities that can impact their land, culture, or resources (Seminole Nation v. United States, 316 U.S. 286 1942). In addition to federal law, Article 19 of the United Nations Declaration on the Rights of Indigenous

Peoples (UNDRIP) declares, "States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them" (United Nations Department of Economic and Social Affairs 2007). Although several federal laws and international agreements explicitly require tribal consultation, federal and state agencies routinely fail to respect tribal sovereignty (Crepelle 2020). Many of the challenges identified in this paper's assessment of the implementation of the Isle de Jean Charles result from disconnect between the tribal communities/leadership and government agencies, that result in frustration with and even refusal to comply with state-led relocation efforts. Resident memories of institutional oppression and distrust towards government agencies will not be resolved with a single silver-bullet policy. However, consideration of tribal consultation requirements could have worked to better community relations and intentionally incorporate resident voices into every step of the resettlement process. This would have revealed tribal politics on the Island, presence of the United Houma Nation, and the reality that many Islanders are reluctant to move. Informed by these realities, the Office of Community Development and/or federal government could have focused grant resources on plans with complete community and tribal support.

In the case of the tribal communities on the Isle de Jean Charles, the lack of federal recognition of both the Houma Nation and Biloxi-Chitimacha-Choctaw tribe (as described above) exacerbated lack of respect towards duties of tribal consultation prior to Resettlement of the Isle de Jean Charles. Improving the tribal consultation process to better incorporate tribes recognized at the state level can allow for the enforcement of tribal consultation. Applying international law on tribal recognition (self-identification as indigenous people is the standard for international recognition) in the context of tribal consultation requirements can also resolve this challenge.

C. Establishment of federal climate migration protocol and consistent provision of federal funding

The US Department of Housing and Urban Development's National Disaster Resilience Competition, the source of funding for the Resettlement of the Isle de Jean Charles, was the first large-scale federal effort to highlight and support local solutions for coping with climate change. In 2015, eligible communities around the country competed to receive HUD Disaster Recovery funds, and a two-phase process was used to competitively award nearly \$1 billion to state and local governments. Four thousand miles north of Louisiana on the western edge of Alaska, the town of Newtok faced challenges similar to those of the Isle de Jean Charles and also applied to receive funds from the NDR Competition. At the time, Newtok was losing 50 to 100 feet of land each year due to sea-level rise and melting permafrost, and at risk of losing its source of drinking water, school, and even airport. The 350 residents of Newtok, all members of the indigenous and federally recognized Yupik people, had been attempting a community-led relocation for 20 years, and even obtained land 10 miles away from the town (Flavelle 2016). In 2016, HUD announced that the residents of the Isle de Jean Charles would receive full funding for their resettlement project – and Newtok would receive no funding at all. Alaska's application on behalf of Newtok and three other towns was rejected, while projects in 10 towns were fully or partially funded.

“It doesn't make any sense,’ said Sally Russell Cox, the state official in charge of Newtok’s application. ‘The decision “simply astonishes me,’ Alaska Governor Bill Walker wrote to Julian Castro, the secretary of HUD. Senator Lisa Murkowski, in a letter to Obama, said HUD’s decision ‘left rural Alaskans looking like simply a backdrop on your pathway to Paris.’” (Flavelle 2016)

The one-time funds awarded to states supports certain communities like the Isle de Jean Charles and excludes others demonstrates the federal government’s lack of preparedness for sustained need for nation-wide climate-driven relocation efforts and funding. In their current state, federal programs provide limited support to climate migration efforts. According to a report by the U.S Government Accountability Office, they are federal programs “are not designed to address the scale and complexity of community relocation and generally fund acquisition of properties at high risk of damage from disasters in response to a specific event such as a hurricane” (US G.A.O 2020).

Many of the challenges identified in this paper’s assessment of the implementation of the Isle de Jean Charles can be attributed to unclear federal leadership. The absence of authority by any federal agency to lead federal assistance for climate migration has resulted in projects like the Resettlement of the Isle de Jean Charles to start from scratch on climate migration protocols, prolonging relocation timelines and hurting community relations as discussed in the data analysis above. Even *with* block grant funding from the federal government, the IDJC resettlement team has faced hurdles in attempts to maintain the promised timeline as the impacts of increasingly severe storms continue to push residents off the Island. The State of Louisiana’s Office of Community Development has been tasked with a responsibility that they will inevitably repeat in the future as coastal wetlands erode – but coordinated assistance must be incorporated in order to address the implementation limitations faced in the Resettlement of the Isle de Jean Charles.

Current projections of 12-inch sea level rise by 2050 mean that entire cities like Galveston, New Orleans, and Miami may require coordinated relocation efforts. The reliance on one-time block grants like those distributed through the National Disaster Resilience Competition is neither sustainable nor sufficient to address imminent need for climate-driven relocation efforts; Newtok and these other coastal communities will rely on post-disaster assistance if no action is taken beforehand. The establishment of federal climate migration protocol and consistent provision of federal funding can minimize fiscal costs of reactive climate disaster policies and create a framework to manage risks with the urgency that they call for.

VIII. Conclusion

The categorization of findings on the Resettlement of the Isle de Jean Charles according to deconstructed components of displacement risks and assessing efforts towards risk mitigation allows for insight into the successes and limitations of the resettlement policy, as implemented by the state of Louisiana. Some of these limitations have the potential to be resolved in the coming months, as the ongoing resettlement continues to be implemented, while some require structural and wide-ranging changes to community relations, political funding formulas, and existing norms regarding systems of power. Although complete resettlement is still underway, I ultimately find that goals towards a

structured, scalable, and just resettlement from the Isle de Jean Charles are being hindered by skepticism regarding government intervention by Native American residents, the pace of progress/failure to align with promised timelines, failure to achieve tribal consultation, and the irreplicability of cultural attachment to place during relocation.

In this paper, I aimed to assess current successes and failures towards the overarching goal of carrying out a structured, scalable, and just resettlement. Following a survey of existing literature on other case studies of relocation, frameworks of resettlement, regional impacts of environmental change in coastal Louisiana, and the ongoing resettlement of the Isle de Jean Charles, I provided comprehensive narrative of the implementation of this planned resettlement according to eight deconstructed risks of displacement. I set out to answer the following research questions: How effectively does the Resettlement of the Isle de Jean Charles address each of the eight deconstructed risks of displacement outlined in the IRR model through suggested risk-mitigation strategies? What challenges has the IDJC experienced in efforts to implement the first federally-funded climate-driven relocation? Through this research process and evaluation of the risk mitigation strategies of the Resettlement of the Isle de Jean Charles according to the IRR model, I ultimately found that federally-funded climate-driven resettlement succeeds in the following attempts toward Cernea's recommended mitigation strategies:

- Integration of values and attachment-to-island expressed by Isle de Jean Charles residents and shows impressive effort in incorporating comments and feedback during household surveys and community meetings into plans for the New Isle.
- House reconstruction is successful in designs to avoid flooding, hurricane risks, etc.; Houses on The New Isle are being designed with resilience to environmental hazards and for long-term sustainability.
- Expansion of access to public resources and consequently, risk mitigation strategies against food insecurity and improved healthcare through improved location of the New Isle.

Despite these successes, the project's attempts implementing structured, scalable, and just resettlement were hindered by the following limitations in risk mitigation strategies:

- Unkept promises and lack of transparency between the Resettlement team and residents of the Isle de Jean Charles, that ultimately limited the trust and compliance with voluntary resettlement, and hindered the success of risk mitigation attempts and implementation of the resettlement project.
- Lack of intentional incorporation of ancestral food practices on the New Isle, including subsistence farming and fishing, limits the cultural sensitivity risk-mitigation attempts toward common property resource restoration, reemployment, and adequate nutrition.
- The pace of progress restricted the complete implementation of various risk mitigation strategies. The failure to align with promised timelines made the outcomes of intended components of the resettlement project uncertain and caused justified frustration at intermediate rounds of relocation needed due to the unlivable state of the island.

- The failure to achieve tribal consultation, which damaged relationships between tribal communities on the island and between the resettlement team and island residents

This paper, and the implications of the Isle de Jean Charles Resettlement Project are not reflective of an isolated or singular event. Globally, we are already seeing trends of climate-induced displacement – whether they are planned, unplanned, voluntary, or involuntary. From Bangladesh and Fiji to California and Alaska, communities are also already facing relocation. The goal of ‘scalability’ posed by this resettlement project thus hints at the inevitable future of climate-induced resettlement that our global community faces. From the outset, the goal of this research was to examine the implementation of the Resettlement of the Isle de Jean Charles and assess whether policy for the United States’ first federally-funded, climate-driven relocation was being carried out in a ‘socially just’ manner and also understand how lessons from this resettlement policy could guide future climate-driven relocation projects. While the data analysis articulated can and should be used to inform an inevitable future of climate-driven relocation, it also underscores the necessity of structural changes to climate adaptation, mitigation, and migration policies for the large-scale and sustainable change. Such structural changes may be needed to address certain limitations of this project that are rooted beyond the Resettlement of the Isle de Jean Charles itself.

The Housing and Urban Development’s National Disaster Resilience Competition, the source of funding for the Resettlement of the Isle de Jean Charles, was the first large-scale federal effort to highlight and support local solutions for coping with climate change. The one-time funds awarded to states that supported certain communities like the Isle de Jean Charles and excluded others (like Newtok, Alaska as explained in Part VII Section 3) demonstrated the federal government’s lack of preparedness for sustained need for nation-wide climate-driven relocation efforts and funding. Regardless of explicit claims of intention towards tribal self-determination and cultural sensitivity, the consistent disconnect between members of Louisiana’s Office of Community Development and tribal leaders and community members underscored the deep-seated and justified skepticism that marginalized groups hold regarding government agencies and state-led efforts. The bureaucratic processes that pushed the resettlement team’s timelines for construction of the New Isle and relocation back three years (and counting) compounded community frustration and even certain residents’ refusal to relocate to the new subdivision. Aggravation between the State of Louisiana, Biloxi-Chitimacha-Choctaw Tribe, and United Houma Nation as governing structures exemplifies the urgency of considering community relations and power imbalances through existing tools like tribal consultation and federal tribal recognition. The resolution of these structural challenges and countless others present in the Isle de Jean Charles resettlement project would strongly benefit from continued scholarship and informed policy. Future assessments of updated risk-mitigation in the Resettlement of the Isle de Jean Charles should incorporate the voices of residents whose voices were less represented in the data sources used in this paper, deeper understandings of marginalization as a risk component and risk-mitigation strategies that move beyond social inclusion, and evaluate the applicability of policy recommendations from this paper to other regions and community groups that do not follow the characteristics of the Isle de Jean Charles.

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