Institute for Youth in Policy

5214F Diamond Heights Blvd #3055
San Francisco, CA 94109
+1 (715) 469-6884
fellowship@yipinstitute.org
www.yipinstitute.org/fellowship/

Fellowship Capstone | Policy Brief

Coastal Erosion within Louisiana

Lillian Coulon

I. Executive summary

Coastal erosion is the process of damage from waves, coastal floods, and other natural factors which lead to eroding along the coast. This process can carry away rocks, soils, and/or sands along the coast. The process of coastal erosion degrades the natural coast through various natural and human caused processes.

II. Overview

Coastal erosion is a process that can concern both the residents of coastal land and the people involved in the economic, social, and political concerns regarding coasts. The solutions for coastal erosion can seem ineffective due to poor government concern or lack of awareness for the issue. Despite progress in state legislations with resistance projects, momentum within the Louisiana legislature to completely address coastal erosion is low, , partially due to partisan opinions that environmental policy such as coastal erosion should not have heavy support from state funding. Hence, this paper investigates the phenomena of why coastal resistance is integral to maintaining the Louisiana ecosystem and preserving its economies while also satisfying the current corporate interests that characterize the state. While environmental concerns regarding coastal erosion are not as common as a concern as other forms of erosion, having less media coverage, the necessity to understand who coastal erosion will affect and how the damage is irreversible will demonstrate why legislation must be enacted.

A. Relevance

The constant erosion of the Louisiana coast has significantly damaged the physical barriers of the state. The various losses associated with coastal erosion include loss of food source, property loss, population diversion, and transportation impediments. First, the source of most coastal economies includes fisheries which derive from coastal ecosystems. As coastal erosion occurs, there is a decrease in habitat for the seafood to dwell causing loss of fisheries for local and national farmers. Property loss occurs when properties lying on the coast, typically involved with tourism, are lost due to the loss of foundation for the properties. Then, population diversion occurs when people are displaced due to the loss of these properties and the resources they need to remain in the coastal region. Finally, coastal transportation is necessary as these lands are key access points from various larger bodies of water. Therefore, as the land erodes, there is no longer efficient means to continue transportation.

III. History

A. Current Stances

Environmental policy has been a perennial concern within the United States, but politics

within the country continue to ignore the social, economic, and personal significance of such land loss that occurs within coastal erosion. While coastal erosion is the cause for up to 500 million dollars in coastal property loss, per the United States Climate Resistance Toolkit, these effects are continuously ignored by local, state, and even national governments because of an aversion to addressing the grave concerns of the environment.

Historically, coastal erosion has not had significant regard in legislation, but statistics point that it must gain attention or it can severely harm the structure of our nation. According to the Environmental Protection Agency, By 2050, up to $106 billion worth of coastal property will likely be below sea level if current trends continue. There are other regions besides Louisiana that coastal erosion significantly affects. The overarching regions include the Gulf Coast, the Atlantic Coast, the Pacific Coast, the Great Lakes, and in Alaska. For example, Florida and Texas, two major proponents to the United States economy, face grave risks due to coastal erosion. In Texas, constant underwater oil extraction places the state at a high risk for increased structure loss that further harms the effects of coastal erosion. In Florida, coastal erosion places its most famous tourist spots such as Clearwater in harm because of the significant loss of land due to coastal erosion. Despite this, Louisiana is still the state with the most at stake due to coastal erosion. Louisiana itself has experienced 80 percent of the country's wetland loss. Since the 1930s, Louisiana has lost more than 2,00 square miles of land, more land coverage than the state of Delaware. While Louisiana has proved strong in the face of adversity in events such as Hurricane Kaatrina, the small state can only lose so much land before the displacement grows too substantial and its citizens lose their home state.

IV. Policy Problem

A. Stakeholders

Primarily, the stakeholders are the citizens of Louisiana who will lose property due to the effects of coastal erosion. These people primarily live along the barriers of the state. The erosion first affects the barrier islands along the state which provide crucial protection to the state from major storms. These barrier islands also protect the wetlands within Louisiana. The threat to the population is so severe that former Governer John Bell Edwards declared a state of emergency in 2017 due to the state of coastal erosion and its effect on citizens.

Industries are also significantly affected by coastal erosion. Some various economic concerns that can occur with coastal erosion include oil and gas, transportation, and commercial fishing and recreation losses. For example, if a storm not protected due to the effect of coastal erosion were to occur and the oil field was not in function for three weeks, the US economy would be at a loss of 33,000 jobs and the loss of earnings would average 1 billion dollars. Coupled with the transportation industry's effects, the US economies would lose over 75,000 jobs and the loss of earnings would equal 2.4 billion USD dollars. These reductions would include delays along the Mississippi River, a major transportation route within Louisiana.

B. Risks of Indifference

The risks of indifference in regards to coastal erosion would cause physical loss to the state of Louisiana. If the state of Louisiana's coast was ignored, the erosion will perpetuate and the property loss will continue. Currently, every 100 minutes, Louisiana loses a football field of land to open waters. By allowing the rate to continue, the state of Louisiana will cease to exist.

C. Nonpartisan Reasoning

Louisiana is home to 4.598 people. No person actively desires to lose their property despite differences in partisanship. Since the heightened awareness of coastal erosion has occurred, both sides of the easel can formally acknowledge the existence of coastal erosion. While some people may believe this is an occurrence that can not be prevented, they can agree that the damage to the state is irreversible. If action is taken to protect our coast, there will be a multitude of benefits for both the population and economy of Louisiana:

1.) Continuity of economy: The economies that lie offshore and inshore in Louisiana are vital to the national economy as Louisiana is a major driver in oil and gas, transportation and fisheries. By protecting the coast, opportunities in the economy may continue in the state of Louisiana. In order for the state to sustain itself, it must uphold these economies so that it may fund environmental relief efforts such as the CPRA's Coastal Master Plan.

2.) Domestic Security:

As out of necessity, coastal resilience plans to combat coastal erosion would benefit the population of Louisiana by allowing the property of its residents to be sustained. As Louisiana is a populated state, the land is utilized not only for residential purposes but also for fisheries, which are a vital industry for local fishermen. Louisiana restaurant owner of the Fish Shack Saint Bernard, Rachel Lagarde Molinario, states that she depends on the local fisheries of Louisiana to provide her with the supply of shrimp that fuels her business: "We must maintain these fisheries in order to keep our Louisiana and the vital small businesses".

V. Tried Policy

The Coastal Master Plan

This is the official plan within Louisiana's to address coastal erosion. The Coastal Master Plan has been developed aby the Coastal Protection and Restoration Authority (CPRA). This authority was created in 2005 to place governance over environmental concerns within Louisiana. The plan contains a multi-pronged approach for large-scale projects and small scale plans in order to address land loss from coastal erosion.

Additionally, the
Protection and Restoration Act (CWPPRA)

(1990) funds the restoration for wetland restoration Louisiana and other Gulf Coast states.

Funding with coastal policy within Louisiana is a matter of content. The Master Plan of the Coastal Protection and Restoration Authority contains a lengthy timeline with a larger budget. (50 years, $50 billion) This timeline reflects the severity of coastal erosion and helps set long scale priorities rather than short-term fixes that will not benefit the state. While the $50 billion figure demonstrates a potential for funding for coastal sciences, the actual funding available is sparse, and many projects are canceled in the stages of development.

VI. Policy Options

Sediment Diversion Revitalization

The most effective coastal resilience is sediment diversion. Previously, the Mid-Barataria Diversion Project was the largest project in state history which would have created a large-scale project in Plaquemines Parish. As this was canceled by the state, policy can be reformed to include renewal of projects like the sediment diversion. To do so, there could be reform within the environmental policy to more effectively communicate with the opinions of locals.

Expanding Government Coordination

In order to more effectively push for environmental reform, the expansion of government organizations which coordinate and advocate for coastal resilience policy. Currently, the Coastal Protection and Restoration Authority is the sole organization concerning coastal erosion. By creating more localized government organizations in order to push for community involvement, the presence of government guidance will advocate for furthered projects.

Research Expansion

According to Louisiana State University, Louisiana contributes the least amount of funding towards coastal research in comparison to other states despite having the most substantial land loss. Allocating expanded research funding from the federal and state government towards policy coastal science research strengthens Louisiana's effectiveness in coastal resilience policy. Possible policy will fund the research through connection with local scientists involved within the coast, including scholars from universities such as

Louisiana State University, Nicholls State University, or Tulane University. .

Acknowledgment

The Institute for Youth in Policy wishes to acknowledge Taylor Beljon-Regen, Alexis Kagan, Lilly Kurtz, Asher Cohen, Paul Kramer. and other contributors for developing and maintaining the Fellowship Program within the Institute.

References

City of New Orleans. 2015. "Coastal Erosion - NOLA Ready." Nola.gov. 2015. https://ready.nola.gov/hazard-mitigation/hazards/coastal-erosion/.

Restore the Mississippi River Delta. 2024. "Coastal Land Loss in the Mississippi River Delta." Restore the Mississippi River Delta. 2024. https://mississippiriverdelta.org/our-coastal-crisis/land-loss/.

Richardson, James, and Loren Scott. 2004. "The Economic Impact of Coastal Erosion in Louisiana on State, Regional, and National Economies Prepared for Department of Natural Resources State of Louisiana Prepared By." https://www.jedi-sec.com/downloads/AW_EconomicImpactofCoastErosion.pdf.