LOUISIANA

AMERICAN SECURITY PROJECT

Pay Now, Pay Later: Louisiana

Louisiana's low-lying coast—including New Orleans—could be entirely underwater by 2100 due to rising sea levels.[1]

The Gulf Coast faces two times as many category 4 and 5 hurricanes today as it did during the 1970s; climate change will strengthen this already worrying trend.[2]

Louisiana has enough biomass resources to sufficiently power approximately 22% of the state's homes.[3]

According to a new study, a failure to mitigate the effects of climate change could begin to cause serious gross domestic product and job losses within the next several decades. Between 2010 and 2050, it could cost Louisianans $14.3 billion in GDP and over 119,000 jobs.*

GDP numbers are based on a 0% discount rate. Job losses are measured in labor years, or entire years of fulltime employment. Backus, George et al., "Assessing the Near-Term Risk of Climate Uncertainty: Interdependencies among the U.S. States," Sandia Report (Sandia National Laboratories, May 2010), 141.* ***https://cfwebprod.sandia.gov/cfdocs/CCIM/docs/Climate_Risk_Assessment.pdf* *(accessed March 23, 2011).*

Admittedly, the effects of climate change, a complex and intricate phenomenon, are difficult to predict with precision. Informed scientific and economic projections, as we have used in our research, however, allow us to see that Louisiana faces significant losses in industries crucial to its economy if no action is taken.

Moreover, data shows Louisiana is poised to benefit from the research, development, and distribution of renewable energy technologies. **Implementing initiatives to promote renewable energy resources could create up to 22,000 jobs and yield Louisiana households up to $1,582 per year in extra income**.[4] Should we fail to take action against climate change, Louisianans have much to lose.

Pay Later: The Cost of Inaction

As the top crude oil producer and second-largest natural gas producer in the United States, Louisiana has played a key role in shaping the old energy economy.[5] These industries contribute heavily to Louisiana's gross state product—and its carbon footprint, the 4th highest per capita in the nation[6]—and are expected to at least nearly, if not completely, destroy many of the state's renowned ecosystems and hotspots.[7]

Hard Times for the Big Easy

Climate change threatens the very existence of New Orleans—it could be entirely submerged by 2100, as sea levels are projected to rise by one to four feet over the next 100 years.[8] Not only would Louisiana lose an incredible cultural center, but also an economic powerhouse for the state.

The Big Easy attracted 7.6 million visitors and generated more than $4 billion in tourism revenue in 2008. This thriving industry employs around 78,000 people in the city.[9] In addition, the Port of New Orleans is one of the busiest ports in the country, handling around 30 million tons of cargo in 2006. The port alone is responsible for 160,500 jobs and $17 billion of spending in Louisiana. The country-wide impact is even bigger: around 380,000 jobs and $47 billion in national economic output are related to the port.[10]

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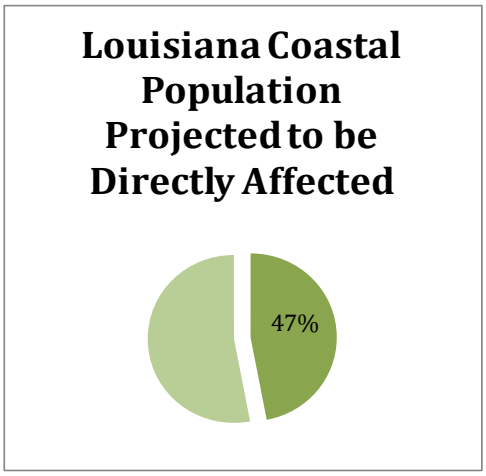
Hurricanes and Other Coastal Costs

Louisiana is no stranger to the devastating effects of hurricanes along its coast. The horrific Hurricane Katrina caused an estimated $110 billion in damages, a loss of 400,000 jobs and

275,000 homes—and a devastating loss of life.[11]



Source: Louisiana Office of Coastal Management[12]

Worldwide, hurricanes have become increasingly powerful and frequent; the number of Category 4 and 5 hurricanes between 1994 and 2004 were double the number which occurred during the 1970s.[13] Climate change will only strengthen these trends, and the coast will likely become even more vulnerable.[14] By 2030, hurricanes with strength similar to Katrina and Rita will likely occur more often; today's 100-year events will likely strike once every generation.[15] Additionally, as sea levels rise, low-level wetlands and barrier islands will be lost as buffers, making inland regions increasingly vulnerable.[16]

More than 70% of Louisiana's salt marshes could be submerged over the next 100 years due to sea level rise. During this past century, Louisiana's coastal wetlands lost 1.2 million acres. The state is currently losing its wetlands at a rate of 24 square miles annually—comparable to losing a football field worth of land every half hour.[17]

Cost to Fishing, Wildlife & Related Industries

Louisiana prides itself on its annual crawfish boils, a time-honored tradition in the state. However, the state's $2 billion iconic crawfish industry—which supports 50,000-70,000 jobs in the state—is at risk from increased diseases triggered by warmer water temperatures.[18]

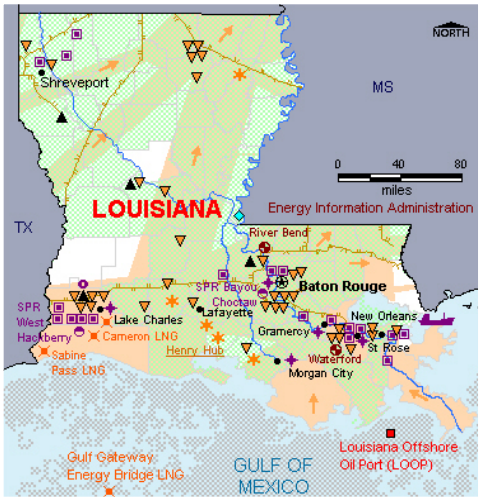
Louisiana offers a rich environment—from its coast to marshy bayous—that is host to a wonderful array of wildlife. Wildlife tourism attracted more than $16 million, while hunting expenditures exceeded $44 million in 2001.[19] Many of Louisiana's wildlife habitats have already been hard hit by disaster, particularly—and most recently—by the BP oil spill. Climate change threatens them further.

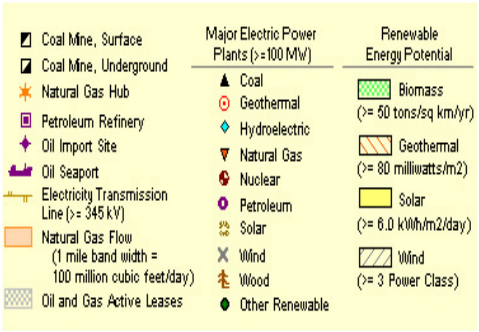
Agriculture and forestry, which contribute more than $10 billion to Louisiana's economy, are likely to suffer from increased drought, forest fire frequency, and irrigation problems brought on by climate change.[20] The timber industry, in particular, is at risk from a 30% increase in forest fires by mid-century and a rise in pest outbreaks. Pine beetle infestations have significantly impacted timber output, costing as much as $237 million in a single year; losses due to infestation are expected to increase more than four-fold due to climate change.[21]

Pay Now: The Benefits of Taking Action

Louisiana is fourth—aside from federal offshore drilling areas—in U.S. crude oil production. It is also a major hub for oil refineries and responsible for 20% of all crude oil imports. Moving to a green energy economy could certainly hurt this part of the state's economy.[22] It is important to note, however, **of the total economic loss severe weather is expected to cause by 2030 in the four Gulf Coast states—an aggregate of roughly $350 billion, 88% is expected to be felt by the old energy economy, commercial, and residential properties**.[23]

Despite the fact that Louisiana will lose part of its traditional income by mitigating the long-term effects of climate change, it is also positioned to benefit from further developing renewable energy resources. Louisiana could reduce its future CO_2 emissions from electricity generation by 44% by increasing energy efficiency and shifting to renewable sources such as solar and biomass.[24] Not only would the state reduce its carbon footprint with appropriate incentives and initiatives,





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Louisiana could increase average household income up to $1,582 per year and create up to 22,000 jobs, offsetting many of the jobs lost in traditional energy-intensive industries.[25]

Louisiana has the potential to produce 3,500-5,500 Whr per square meter via solar power; **one square mile devoted to solar power could provide electricity for around 1,200 households annually**.[26] Additionally, Louisiana has the potential to power around 22% of the state's homes using biomass energy resources.[27]

Conclusion

Louisiana must consider action on climate change not just in terms of cost, but also in terms of opportunities. If we give Louisiana's population, businesses, and investors clear and consistent signals by properly offering initiatives and cultivating demand, investment and innovation in renewable technologies will follow.

Louisiana residents will have to pay for the effects of climate change. The only remaining question is whether they will pay now, or pay later and run the risk of paying significantly more.

(Endnotes)

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