Climate change is a fiscal disaster for local governments: Study shows how it's testing communities in Florida

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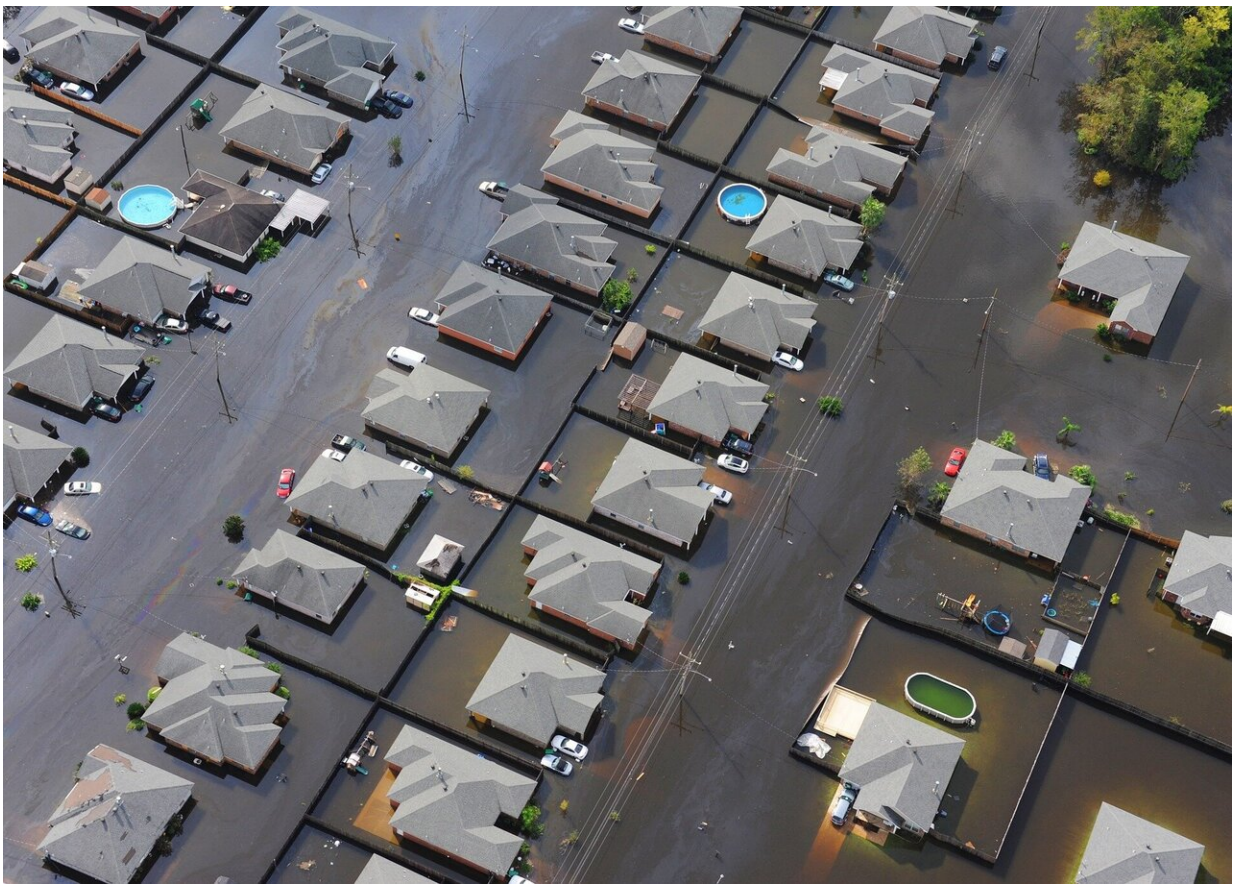

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Climate change is affecting communities nationwide, but Florida often

seems like ground zero. In September 2022, Hurricane Ian devastated southwest Florida, killing at least 156 people and causing an estimated US$113 billion in damages. Then Hurricane Idalia shut down the Florida Panhandle in September 2023, augmented by a blue supermoon that also increased tidal flooding in southeast Florida.

Communities can adapt to some of these effects, or at least buy time, by taking steps such as upgrading stormwater systems and raising roads and sidewalks. But climate disasters and sea-level rise also harm local governments financially by increasing costs and undercutting their property tax bases. Local reliance on property taxes also can discourage cities from steering development out of flood zones, which is essential for reducing long-term risks.

In a newly published study and supporting online StoryMap, we present the first-ever municipal fiscal impact assessment of sea-level rise in Florida and combine it with a statewide survey of coastal planners and managers. We wanted to know how sea-level rise would affect municipal tax revenues and whether coastal planners and managers are accounting for these fiscal impacts.

Our study finds that over half of Florida's 410 municipalities will be affected by 6.6 feet of sea-level rise. Almost 30% of all local revenues currently generated by these 211 municipalities come from buildings in areas that will become chronically flooded, potentially by the end of the century. Yet, planners and managers remain largely unaware of how much climate change will affect local fiscal health. Some communities with the most at risk are doing the least to prepare.

Property tax and climate change: A Catch-22

Property taxes are critically important for municipal governments. Nationwide, they provide 30% of local revenues. They are one of the

few funding sources that local governments control, and climate change directly threatens them.

As climate change warms ocean waters, it fuels hurricanes and increases their reach and intensity. Climate change also is raising sea levels, which increases coastal flooding during both storms and high tides, often referred to as sunny-day flooding. Unlike storms, sea-level rise doesn't recede, so it threatens to permanently inundate coastal lands over time.

Property tax revenues may decline as insurance companies and property markets downgrade property values to reflect climate impacts, such as increasing flood risks and wildfires. Already, a growing number of insurance companies have decided to stop covering some regions and types of weather events, raise premiums and deductibles and drop existing policies as payouts rise in the wake of natural disasters. Growing costs of insuring or repairing homes may further hurt property values and increase home abandonment.

Climate change also makes it more expensive to provide municipal services like water, sewage and road maintenance. For example, high heat buckles roads, rising water tables wash out their substructure, and heavier rains stress stormwater systems. If cities don't adapt, increasing damage from climate-driven disasters and sea-level rise will create a vicious fiscal cycle, eroding local tax bases and driving up services costs—which in turn leaves less money for adaptation.

However, if cities reduce development in vulnerable areas, their property taxes and other revenues will take a hit. And if they build more seawalls and homes fortified to withstand hurricanes and storms, they will induce more people to live in harm's way.

In Florida, we found that these theoretical dynamics are already occurring.

Florida's local revenues at risk

Our analysis shows that sea-level rise could flood properties that have a combined assessed value of US$619 billion and currently generate $2.36 billion in annual property taxes. Five million Floridians live in towns where at least 10% of local revenues comes from properties at risk of chronic and permanent flooding. For 64 municipalities, 50% of their revenues come from these risk zones.

Actual fiscal effects would likely be worse after accounting for other lost revenues, rising expenditures and the impacts of multiple climate hazards, such as hotter weather and more intense hurricanes.

These impacts are not evenly distributed. Municipalities with the greatest fiscal risks are geographically and demographically smaller, denser, wealthier and whiter. Lower-risk municipalities tend to be more populous, more diverse, lower-income and have larger land areas.

For instance, the 6,800 residents of the city of Treasure Island in southwest Florida are 95% white and have a median household income of $75,000. The town occupies 3 square miles of land on a barrier island. In our model, its potential lost revenues due to sea-level rise equal its entire municipal revenue stream.

In contrast, St. Petersburg, the nearest big city, has a population of 246,000 residents that is 69% white and a median household income of $53,800. It covers 72 square miles, with only 12% of its property tax revenues at risk from flooding.

Heads in the sand

We see our findings as a wake-up call for state and local governments. Without urgent action to adapt to climate change, dozens of

municipalities could end up fiscally underwater.

Instead, many Florida cities are pursuing continued growth through infrastructure expansion. Even after devastating events like Hurricane Ian, administrative boundaries, service obligations and budgetary responsibilities make it hard for municipal leaders to make room for water or retreat onto higher ground.

Treasure Island, for instance, is allocating property taxes to upgrade the town's causeway bridge. This protects against modest climate impacts in the short term but will eventually be overwhelmed by bigger storm surges, rising water tables and accelerating sea-level rise.

These dynamics can worsen displacement and gentrification. In Miami, developers are already buying and consolidating properties in longtime Black and lower-income neighborhoods like Little Haiti, Overtown and Liberty City that are slightly more elevated than areas along the shore.

If this pattern continues, we expect that inland and upland areas of cities like St. Petersburg, Tampa and Miami will attract more resilient, high-end development, while displaced low-income and minority residents are forced to move either out of the region or to coastal zones with declining resources.

Charting a different future

We don't see this outcome as inevitable, in Florida or elsewhere. There are ways for municipalities to manage and govern land that promote fiscally sound, equitable and sustainable ways of adapting to climate change. The key is recognizing and addressing the property tax Catch-22.

As a first step, governments could assess how climate change will affect

their fiscal health. Second, state governments could enact legislation that expands local revenue sources, such as sales or consumption taxes, vacancy taxes, stormwater impact fees and resilience bonds or fees.

Regional sharing of land and taxes is another way for small, cash-strapped communities to reduce development in vulnerable places while maintaining services for their residents. For example, New Hampshire passed a bill in 2019 to allow coastal municipalities to merge in response to sea-level rise.

Finally, state governments could pass legislation to help low-income neighborhoods gain more control over land and housing. Tested tools include limited equity cooperatives, where residents buy an affordable share in a development and later resell at below-market prices to maintain affordability; community land trusts, where a nonprofit buys and holds land title to keep land costs down; and resident-owned mobile home parks, where residents jointly buy the land. All of these strategies help communities keep housing affordable and avoid displacement.

Shifting away from a business-as-usual development model won't be easy. But our study shows that Florida, with its flat topography and thousands of miles of coastline, faces cascading fiscal impacts if it continues down its current path.

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