

Climate Change Adaptation: Sea-Level Rise Projects

Global sea levels could rise three to six feet over the next century.

Four feet of sea-level rise would inundate an area the size of Massachusetts, and just 20 inches of sea-level rise would cause \$23-170 billion in damage in the United States.¹ Sea-level rise will cause higher storm surge and more flooding and erosion. Governments will be required to spend large amounts of money responding to emergencies and rebuilding flooded infrastructure.

Recognizing these risks, state and local governments have begun developing adaptation plans. Some are moving from planning stages to actually implementing adaptive actions. In doing so, decision-makers often face many challenges, including competing policy alternatives; divided authority among local, state, and federal entities; and limited financial resources.

The Georgetown Climate Center works with state and local governments to help them become “coast-smart”—that is, better prepared to cope with the threats posed by rising sea levels. To this end, the Center helps state and local governments during all phases of adaptation. At the planning stage, we help identify adaptation policies and organize them into a coherent strategy. At the implementation stage, we help governments evaluate their authority to adopt existing policies to meet the unique threats posed by sea-level rise by incorporating policies into existing legal frameworks, navigating legal obstacles, and tapping federal resources.

Recent Projects

- **Sea-Level Rise Toolkit** — This toolkit analyzes 19 different land-use tools that state and local governments can use to respond to sea-level rise. The toolkit identifies adaptive policies, discusses how each tool can be used to address sea-level rise, and provides a framework to help decision-makers weigh the trade-offs between options and anticipate potential legal and policy obstacles.
- **Policy analysis** — The Center analyzes policy tools from three perspectives: 1) tools that local governments can implement on the ground (e.g., a model overlay zone to cope with sea-level rise), 2) ways that state and federal laws might hinder implementation of adaptive policies (e.g., analysis of the impact of the National Flood Insurance Program on retreat options), and 3) existing federal programs that could provide financial resources to help governments adapt (e.g., the Hazard Mitigation Grant Program).

¹Source: National Oceanic and Atmospheric Administration

