

Stanford survey: Americans back preparation for extreme weather and sea-level rise

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Images told the story: lower Manhattan in darkness, coastal communities washed away, cars floating in muck. Superstorm Sandy, a harbinger of future extreme weather intensified by climate change, caught the country off guard in October.

Unprepared for the flooding and [high winds](#) that ensued, the East Coast suffered more than \$70 billion in property damage and more than 100 deaths.

Will Americans prepare and invest now to minimize the impact of disasters such as Sandy, or deal with storms and rising sea levels after they occur?

A new survey commissioned by the Stanford Woods Institute for the Environment and the Center for Ocean Solutions finds that an overwhelming majority of Americans want to prepare in order to minimize the damage likely to be caused by global warming-induced sea-level rise and storms.

A majority also wants people whose properties and businesses are located in hazard areas to foot the bill for this preparation, not the government. Eighty-two percent of the Americans surveyed said that people and organizations should prepare for the damage likely to be caused by sea-level rise and storms, rather than simply deal with the

damage after it happens.

Among the most popular policy solutions identified in the survey are stronger building codes for new structures along the coast to minimize damage (favored by 62 percent) and preventing new buildings from being built near the coast (supported by 51 percent).

"People support preventive action," said survey director Jon Krosnick, a senior fellow at the Stanford Woods Institute for the Environment and professor of communication, "and few people believe these preparations will harm the economy or eliminate jobs. In fact, more people believe that preparation efforts will help the economy and create jobs around the U.S., in their state and in their town than think these efforts will harm the economy and result in fewer jobs in those areas. But people want coastal homeowners and businesses that locate in high-risk areas to pay for these measures."

The challenges posed by [rising sea levels](#) and increasingly severe storms will only intensify as more Americans build along the coasts. A National Oceanic and Atmospheric Administration report released March 25 predicts that already crowded U.S. coastlines will become home to an additional 11 million people by 2020.

Survey questions were formulated to assess participants' beliefs about climate change and gather opinions about the impact of climate change, sea-level rise and storms on communities, the economy and jobs.

The survey also gauged public support for specific coastal adaptation strategies and how to pay for them. "People are least supportive of policies that try to hold back Mother Nature," Krosnick said. "They think it makes more sense to recognize risk and reduce exposure."

Among the survey's respondents, 48 percent favor sand dune restoration

and 33 percent favor efforts to maintain beaches with sand replenishment, while 37 percent support relocating structures away from the coast and 33 percent support constructing sea walls.

Eighty-two percent of the survey's respondents believe that Earth's temperature has been rising over the last 100 years. However, even a majority of those who doubt the existence of [climate change](#) favor adaptation measures (60 percent).

"The question is, how does public support for preparation translate to action?" asked Meg Caldwell, executive director of the Center for Ocean Solutions. "Our impulse is to try to move quickly to put communities back together the way they were after devastation. But that impulse often leads to doubling down on high-risk investments, such as rebuilding in areas likely to experience severe impacts. To move toward long-term resiliency for [coastal communities](#), we need to seize opportunities to apply new thinking, new standards and long-term solutions."

Krosnick presented the survey results this morning at a policy briefing hosted by the Stanford Woods Institute for the Environment at the National Press Club in Washington, D.C.

The briefing was followed by a discussion about the implications of changing public attitudes with four panelists: Cas Holloway, deputy mayor for operations in New York City; Laurie McGilvray, chief of the Estuarine Reserves Division of the National Oceanic and Atmospheric Administration; Margaret Peloso, an attorney with the international law firm of Vinson & Elkins; and Carol Werner, the executive director of the Environmental and Energy Study Institute. Videos of the presentation and the panel discussion will be available by 4 p.m. Eastern/1 p.m. Pacific time on the Stanford Woods Institute website.

The survey was conducted via the Internet with a nationally

representative probability sample of 1,174 American adults, 18 and older, conducted by GfK Custom Research March 3-18, 2013. The survey was administered in both English and Spanish. The survey has a margin of error of +/-4.9 percent at the 95 percent confidence level.

Provided by Stanford University

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