

Sandy shows costs of climate change

By Andrew Holland, senior fellow, American Security Project - 11/06/12 04:30 PM ET

America is not prepared for a changing climate. Hurricane Sandy vividly demonstrated this by cutting off our greatest city, sending half of Manhattan into darkness, and turning the boardwalks and houses of JerseyShore into matchsticks. The estimates are that this storm will ultimately cost over \$20 billion in insured losses, and \$50 billion in economic loss.

Last week – purely coincidentally – the American Security Project (ASP) released its new Climate Security Report, detailing how climate change will undermine America's national security. It makes clear, however, that this is not simply a problem that stops at the water's edge: climate change presents clear dangers to our homeland security as well.

In the aftermath of the storm, we are waking up to the knowledge that America's infrastructure is dreadfully underprepared for a changing climate. The American Society of Civil Engineers most recently gave America's infrastructure a grade of 'D' when they published their most recent report card in 2009. Critical sectors like wastewater, levees, dams, and drinking water – the very infrastructure that will have to be resilient to a changing climate – fared even worse.

A study from Stanford Business School estimates that \$1 in preparedness spending is worth \$15 in relief payments resulting from future disasters. However, America's recent efforts on disaster spending have been the exact opposite. The same study finds that since 1988, although the amount spent on disaster preparedness remained flat, funding for disaster relief jumped 13 fold.

As the Engineers' reports shows, we have systematically underinvested in our infrastructure. Then, when it fails under duress, as it inevitably does, we say that "we will rebuild." It surely would be much easier to build more resilient in the first place, so that we do not face these failures.

In 2011, the American Security Project put out a comprehensive report called "Pay Now, Pay Later" that detailed the projected costs that unabated climate change would have on each of the 50 states. The clear result was that the costs of addressing climate change become much higher, the longer we waited.

In the age of climate change, our policy of responding to disaster has to change. As Benjamin Franklin's Poor Richard said: "An ounce of prevention is worth a pound of cure." But, in an age of deficits, austerity, and national debt, we will have to be smart about it.

We will of course need to spend vast amounts of money to help New York and New Jersey rebuild. We spent more than \$16 billion helping New Orleans to rebuild after Katrina and \$20 billion in federal aid to help Lower Manhattan rebuild after 9/11. But, we should also spend to protect them – and the rest of the country. We closed the barn door by upgrading the levees in New Orleans after Katrina blew all the horses out, and now there should be a debate about whether to build a flood barrier for New York harbor, at a cost that could be \$15 billion or more.

After the devastating floods of 1953, the Netherlands committed to building the Delta Works and Zuidersee Works, a battery of flood protections from the North Sea that protects the low-lying country from damaging storm surges. This project took 50 years and cost over \$10 billion. But, America is not the

Netherlands – a small, densely populated nation living with about 300 miles of coastline.

If we are going to build flood barriers, we're going to have to take some difficult decisions – you simply cannot protect our entire 3800 mile coastline, from Lubec, Maine to Key Largo on the Atlantic, and from Key West to Corpus Christi, Texas in the Gulf of Mexico (and that does not even count the West Coast, which is not threatened by Hurricanes, but has its own threats). That means that our government is going to have to make some serious decisions and trade-offs about what is worth protecting and where we should build.

Right now, the government actively encourages building in the most vulnerable areas by offering below market-rate flood insurance to houses living along the coast and by having the Army Corps of Engineers rebuild eroded beachfronts. This encourages more building in vulnerable areas.

A smarter policy would be to build resilience in some areas, through flood protection barriers in high value areas, encouraging natural protection barriers – like wetlands and barrier islands where possible.

The New Jersey shore will be the first test of whether our country wants to continue this policy. Growing up, I spent many happy summer days in Point Pleasant, Avalon, and Seaside Heights, but I am not convinced that the government should subsidize the rebuilding of multi-million dollar beachfront homes along the coast. It may take several more storms and much more damage before this lesson really sinks in.

Holland is a senior fellow at the American Security Project, a non-partisan national security think tank. He is an expert on America's energy, climate, and infrastructure policy.

Read more: <http://thehill.com/blogs/congress-blog/energy-a-environment/266187-sandy-shows-costs-of-climate-change#ixzz2gU89oXni>

Follow us: [@thehill on Twitter](#) | [TheHill on Facebook](#)