

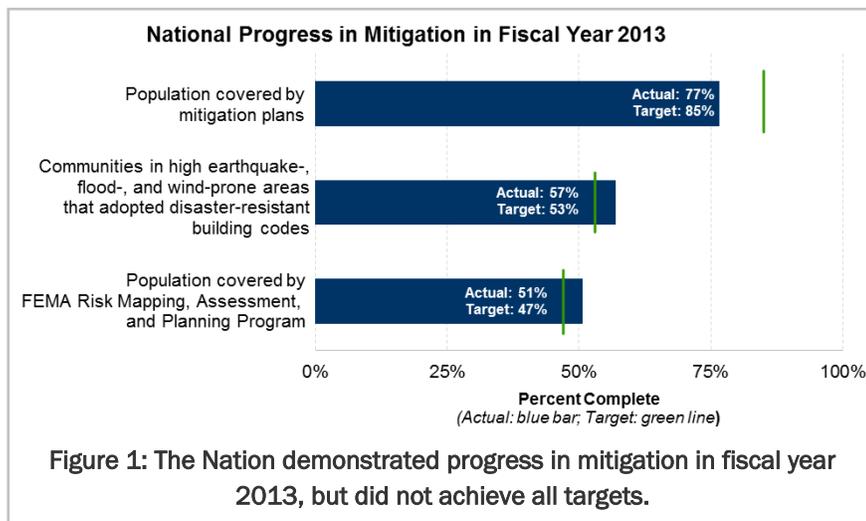
MITIGATION



Highlights

- The *Biggert-Waters Flood Insurance Reform Act of 2012* (Public Law 112-141) began to address the sustainability of Federal flood insurance by calling for updated flood risk maps and modified flood insurance rates that reflect risk more accurately. (Long-term Vulnerability Reduction, p.43)
- Threat and hazard identification initiatives by state, local, tribal, and territorial partners involved diverse representation from government agencies, non-governmental organizations, and other whole community partners to produce an inclusive understanding of threats and hazards. (Threats and Hazard Identification, p. 39)
- Federal partners are assessing the impacts of climate change on key economic sectors and the vulnerability of their missions to climate change and extreme weather. (Risk and Disaster Resilience Assessment, p. 40)
- New incentives and expanding partnerships are strengthening community resilience across the Nation. (Community Resilience, p. 42)

Trends Nationwide, mitigation efforts reduced the cost of natural disasters by an estimated \$3.2 billion in fiscal year 2013, exceeding Federal targets by over 30 percent. As shown in Figure 1, progress occurred in several mitigation areas, but challenges remain in addressing existing gaps and future risks.



The National Flood Insurance Program faces fiscal challenges. By design, the Federal Government has subsidized some of the highest-risk policies to reduce the financial burden on households. While this approach has kept premiums affordable, major disasters such as Hurricanes Katrina and Sandy have forced the program to borrow money to cover costs and the program is \$24 billion in debt. The *Biggert-Waters Flood Insurance Reform Act of 2012* (“Biggert-Waters”) attempts to ensure the sustainability of the program and, in turn, the future availability of flood insurance. The *Homeowner Flood Insurance Affordability Act of 2014* (Public Law 113-89) amended

certain provisions from Biggert-Waters to delay implementation of full risk-based premium rates for certain properties.

In addition to policy and fiscal issues, population changes and climate conditions pose challenges for reducing disaster losses. Over the past 40 years, the population in coastal shoreline counties has increased by 39 percent. Changes in climate are also influencing the frequency and intensity of extreme weather across the United States.

Given challenges from climate change, some states and Federal agencies are planning proactively. FEMA’s regulations require states to include an overview of past and future natural events that can affect them in their hazard mitigation plans. Thirty-two states mention climate change in their mitigation plans; of these, 11 incorporate a thorough discussion of the impacts of climate change and adaptation actions. In addition, USACE requires consideration of climate change in its planning activities.

By the Numbers

Mitigation plans from more than 22,000 communities cover approximately **76 percent** of the U.S. population, up from 71 percent in 2012.

Over 50 percent of the population is either aware of the importance of personal preparedness or is taking actions to improve their preparedness.

Seventy-one percent of Citizen Corps Councils have supported local emergency planning activities within the past two years.

Resilience Innovations

- The U.S. Department of Education's Readiness and Emergency Management for Schools Technical Assistance Center created a [virtual toolkit](#) with resilience resources for school emergency managers.
- NOAA's [Digital Coast](#) gives a growing coastal population information needed to make coastal communities more resilient.
- Oak Ridge National Lab researchers developed a [methodology to use social media](#) to help measure community resilience.
- In 2013, community leaders from Joplin, Missouri, [published lessons learned and recommendations](#) from their recovery from a 2011 tornado to help communities increase resilience before a disaster.

Preparedness in Action The Community and Regional Resilience Institute reported on the first pilot projects completed through its FEMA-supported Community Resilience System. A key finding from the pilot programs was that despite the flexibility that assessment tools offer, such tools cannot substitute for building relationships, networks, and plans across agencies and sectors. One example of this community networking is the Communities Organized to Respond in Emergencies program in Miami-Dade County that engages faith-based and community organizations in response and recovery efforts. Forty-six additional organizations committed to partner with this program in 2013, augmenting its available resources.

The Federal Highway Administration (FHWA) also continued working with state and local jurisdictions to assess the resilience of transportation systems to climate change. The FHWA developed a climate vulnerability assessment model for transportation and tested its application in five pilot studies from 2010–2011. In the Washington State pilot, the assessment revealed that many transportation assets are resilient to climate change, due to a “no regrets” mitigation strategy, which goes beyond minimum standards for seismic retrofitting and reducing flood exposure. [FHWA expanded the program](#) to 19 additional pilot sites in 16 states. The pilots are using the vulnerability assessment model and analyzing adaptation options to improve the resilience of transportation infrastructure. Washington State is building on its previous work by examining the Skagit River Basin, one of the vulnerable areas identified in a previous pilot study. Key activities include identifying adaptation strategies for transportation infrastructure, developing a repeatable evaluation process, and producing an action plan that accounts for future climate impacts.

Whole Community Accomplishments

Colorado: During the 2013 Colorado floods, the Independence Center led regional coordination efforts to help disaster survivors with disabilities. The Independence Center collaborated with seven other Centers for Independent Living, disability advocacy and service organizations, and FEMA's Office of Disability Integration and Coordination to integrate people with disabilities and others with access and functional needs into response and recovery operations.

Los Angeles, California: The City of Los Angeles Fire Department partnered with local organizations and businesses to create the South Los Angeles Teen Community Emergency Response Team Collaborative, which received the [John D. Solomon Whole Community Preparedness Award](#) in 2013. The program provided basic disaster preparedness and response training to youth from at-risk neighborhoods in Los Angeles, delivering training to 27 local teens. Fourteen of these individuals also received training in cardiopulmonary resuscitation and first-aid.

Eagle Village, Alaska: In Eagle Village, Alaska, mitigation actions have reduced vulnerability. After devastating floods in 2009, the community used mitigation funding from FEMA to relocate housing for its nearly 70 residents, moving several miles inland from the Yukon River. When similar floods occurred in 2013, these new homes did not sustain damage.