



Highlights of [GAO-09-534T](#), a testimony before the Subcommittee on Energy and Environment, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

Changes in the climate attributable to increased concentrations of greenhouse gases may have significant environmental and economic impacts in the United States. For example, climate change could threaten coastal areas with rising sea levels, alter agricultural productivity, and increase the intensity and frequency of floods and storms.

Federal, state, and local agencies are tasked with a wide array of responsibilities that will be affected by a changing climate, such as managing natural resources. Furthermore, climate change could increase the cost of federal programs, such as crop and flood insurance, and place new stresses on infrastructure.

Greenhouse gases already in the atmosphere will continue altering the climate system into the future regardless of emissions control efforts. Therefore, adaptation—defined as adjustments to natural or human systems in response to actual or expected climate change—is an important part of the response to climate change.

Today's testimony summarizes GAO's prior and ongoing work examining (1) actions that federal, state, local, and international authorities are taking to adapt to a changing climate, (2) the challenges that federal, state, and local officials face in their efforts to adapt, and (3) actions that the Congress and federal agencies could take to help address these challenges.

View [GAO-09-534T](#) or key components. For more information, contact John Stephenson, (202) 512-3841, stephensonj@gao.gov.

CLIMATE CHANGE

Observations on Federal Efforts to Adapt to a Changing Climate

What GAO Found

Based on preliminary observations from GAO's ongoing adaptation work for the Select Committee on Energy Independence and Global Warming, certain federal, state, local, and international government authorities are beginning to consider and implement climate change adaptation measures. Some federal programs are already helping officials make decisions in response to a changing climate. For example, the National Oceanic and Atmospheric Administration's Regional Integrated Sciences and Assessments (RISA) program supports climate change research to meet the adaptation-related information needs of decision makers and planners at the regional level. In addition, certain state, local, and international governments are developing and implementing climate change adaptation plans. For example, GAO's recent site visit to Maryland examined the state's comprehensive strategy for reducing vulnerability to climate change focused on sea level rise and coastal storms. As part of ongoing work for the Select Committee, GAO plans to conduct four additional site visits to learn from international, federal, and local adaptation efforts.

Several of GAO's recent reports on climate change examined a number of challenges faced by government officials in their efforts to adapt. First, climate change is one of many priorities competing for attention and resources. Second, a lack of guidance can constrain the ability of officials to consider climate change in management and planning decisions. Third, insufficient site-specific data, including a lack of local projections of expected changes, can reduce the ability of officials to manage the effects of climate change on the resources they oversee. Fourth, officials are struggling to make decisions based on future climate scenarios that may not reflect past conditions. Our ongoing work seeks to identify other challenges warranting the attention of policymakers.

Some of GAO's recent climate change-related reports offer clues on the types of actions federal agencies and the Congress could take to assist states and communities in their efforts to adapt. A recent GAO report on federal land management, for example, recommended that certain agencies develop guidance advising managers how to address the effects of climate change on the resources they manage. Furthermore, a recent GAO report on the economics of climate change identified actions the Congress and federal agencies could take, such as reforming insurance subsidy programs in areas vulnerable to hurricanes or flooding. GAO's current effort for the Select Committee, which focuses more directly on adaptation, will obtain information and perspectives from diverse groups of knowledgeable federal, state, and local officials, and in particular will seek to learn from the experience of practitioners on the front lines working to adapt to a changing climate. This work will be completed by late 2009.