

Government Accountability Office

Why the Evolution of GAO's Climate Change Work Is Important to Federal Science Programs

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Agenda

- What is GAO and Why am I here?
- GAO's Climate Change Work: Past, Present, Future
- **HIGH RISK LIST:** Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks
- May 14, 2013, Infrastructure Adaptation Report
- Discussion

What is the Government Accountability Office (GAO)?

- Independent, Nonpartisan
- Congressional Watchdog
- Mission:

to support the Congress in meeting its constitutional responsibilities and to help improve the performance and ensure the accountability of the federal government for the benefit of the American people. We provide Congress with timely information that is objective, fact-based, nonpartisan, nonideological, fair, and balanced.

- Core Values: Accountability, Integrity, and Reliability

4 Climate Change Key Issues Pages

- Understanding Climate Change
- Reducing Greenhouse Gas Emissions
- Climate Change Funding and Management
- Climate Change Response

Past Climate Change Reports

- At the direction of Congress, much of GAO's past reports have focused on understanding climate change and efforts to reduce greenhouse gas emissions.
- **Understanding Climate Change**
 - Emissions data
 - Measuring and monitoring climate change
 - Satellites
 - GAO works with the National Academies and USGCRP on climate science issues

Past Climate Change Reports

Reducing Greenhouse Gas Emissions

- Analyzing policy options
- Emissions trading
- Carbon offsets
- International programs
- Technology
 - Carbon capture and storage

Funding and Management

- More recently, Increased focus on funding, improving the management of federal programs, and adaptation.

Ongoing Work Focuses Primarily on Adaptation

- *HIGH RISK: Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks* (Released February 14, 2013)
- *Climate Change: Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers* – (Released MAY 14, 2013)
- *Climate Change: Various Adaptation Efforts Are Under Way at Key Natural Resource Management Agencies* (May 31, 2013)

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|--|---|
| • Arctic Council | • Ocean Acidification |
| • U.S. Foreign Assistance for Climate Change | • Defense Infrastructure Adaptation |
| • Energy Infrastructure Adaptation | • Federal Crop and Flood Insurance |
| • Water Infrastructure Adaptation | • UNSTAFFED – Agriculture, Public Health, Options for Organizing Climate Data |
| • Arctic Infrastructure | |



What is the High-Risk List?

- Every two years at the start of a new Congress, GAO calls attention to agencies and program areas that are high risk due to their vulnerabilities to fraud, waste, abuse, and mismanagement, or are most in need of transformation.
- In February 2013, GAO detailed 30 high-risk areas.
- <http://www.gao.gov/highrisk>



U.S. GAO - High Risk List - Windows Internet Explorer

http://www.gao.gov/highrisk

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 **High Risk List**

Every two years at the start of a new Congress, GAO calls attention to agencies and program areas that are high risk due to their vulnerabilities to fraud, waste, abuse, and mismanagement, or are most in need of transformation. This site presents GAO's current High Risk List, explains what has changed since the last update, and provides background information and related multimedia.

[View the 2013 Report](#)

High Risk Welcome Video

Listen to Our High Risk Podcast

2013 LIST LATEST CHANGES BACKGROUND MULTIMEDIA

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GAO's 2013 High Risk List:

Sort By Title	Sort By Topic
Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks	Natural Resources and Environment
Management of Federal Oil and Gas Resources	Natural Resources and Environment
Modernizing the U.S. Financial Regulatory System and Federal Role in Housing Finance	Business Regulation and Consumer Protection
Restructuring the U.S. Postal Service to Achieve Sustainable Financial Viability	Government Operations
Funding the Nation's Surface Transportation System	Transportation
Strategic Human Capital Management	Government Operations
Managing Federal Real Property	Government Operations
DOD Approach to Business Transformation	National Defense
DOD Business Systems Modernization	Information Technology
DOD Support Infrastructure Management	National Defense
DOD Financial Management	Auditing and Financial Management

http://www.gao.gov/index.html

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Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks

- GAO reported in 2009 that the federal government's emerging adaptation activities were carried out in an ad hoc manner and were not well coordinated across federal agencies, let alone with state and local governments.
- Subsequently, GAO's 2011 report on climate change funding found no coherent strategic government-wide approach to climate change.
- The federal government would be better positioned to respond to the risks posed by climate change if federal efforts were more coordinated and directed toward common goals.
- Climate change adaptation—adjustments to natural or human systems in response to actual or expected climate change—is a risk-management strategy to help protect vulnerable sectors and communities.

Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks

- Recognizing the CEQ adaptation task force, agency adaptation plans, and other efforts, while individual agency actions are necessary, a centralized strategy driven by a government wide plan is also needed to reduce the federal fiscal exposure to climate change, maximize investments, achieve efficiencies, and better position the government for success.
- Recognizing the lack of a strategic framework, climate change creates significant financial risks for the federal government 4 key areas:
 1. Owner of Property
 2. Insurer
 3. Provider of Technical Assistance
 4. Provider of Disaster Aid

Examples of What Remains to Be Done

Develop clear governmentwide priorities with strong leadership

- Need to combine current decentralized approach with more focused and efficient governmentwide strategy that also informs action at the state and local levels. Who will do what by when?
- EXAMPLE – multiple inwardly focused decentralized agency technical assistance programs vs. a more coordinated, outward facing effort.

Develop and incorporate climate information into flood and crop insurance.

- Develop the information needed to consider sea level rise and long-term erosion when updating flood maps. The Biggert-Waters Flood Insurance Reform Act of 2012 requires FEMA to use, among other things, information on future changes in sea levels and intensity of hurricanes in updating its flood maps. Effectiveness will depend on implementation by FEMA.

Provide technical assistance to state and local governments.

- Develop a government-wide approach for providing (1) the best available climate-related data for making decisions at the state and local level and (2) assistance for translating available climate-related data into information that officials need.

Disaster aid.

- FEMA needs improved criteria to assess a jurisdiction's capability to respond and recover on its own, and also to better apply lessons from past experience when developing disaster cost estimates so decision makers have a comprehensive view of overall funding claims and trade-offs.

Climate Change: Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers

High Level Findings

- Roads and Bridges, Wastewater Management Systems, and NASA Centers Are Vulnerable to Changes in the Climate
- Climate Change Has Not Been Systematically Incorporated in Infrastructure Planning
- **Key Factors Enabled Some Decision Makers to Integrate Climate Change into Infrastructure Project Planning**
- Future Federal Adaptation Efforts Could Better Meet the Needs of Local Infrastructure Decision Makers

4 Key Factors Enabled Some Decision Makers to Integrate Climate Change into Infrastructure Project Planning

1. Local Circumstances Were Conducive to Addressing Climate-Related Risks
 - Experienced natural disaster or had discernable climate-related impact
 - Strong leadership
 - Executive order or formal policy document to justify and encourage action

2. Decision Makers Learned to Use Available Information
 - Did not wait for perfection / uncertainty not an excuse for inaction
 - Use a range of information sources to make the most informed decision
 - Site-specific projections
 - Qualitative information (state or regional scale)
 - Observed historical climate data

4 Key Factors Enabled Some Decision Makers to Integrate Climate Change into Infrastructure Project Planning

3. Decision Makers Had Access to Local Assistance

- Translating available information
- Communicating to the public

4. Decision Makers Considered Climate Impacts within Existing Planning Processes

- Viewed in same context as other risks
- Mainstreaming (e.g. design standards)

Future federal efforts could help in all 4 of these areas.

GAO High-Risk on the Web

Web site: <http://www.gao.gov/highrisk>

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