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CLIMATE CHANGE ADAPTATION

Aligning Funding with Strategic Priorities

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Natural Resources and Environment

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Highlights of [GAO-11-876T](#), a testimony before the Subcommittee on Financial Services and General Government, Committee on Appropriations, U.S. Senate

Why GAO Did This Study

A 2009 assessment by the United States Global Change Research Program (USGCRP) found that many types of extreme weather events, such as heat waves and regional droughts, have become more frequent and intense during the past 40 to 50 years. According to the assessment, changes in extreme weather and climate events will affect many aspects of society and the natural environment, such as infrastructure. In addition, the Department of Defense found that climate change may act as an accelerant of instability or conflict, placing a burden to respond on militaries around the world.

According to the National Academies, USGCRP, and others, 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.

This testimony addresses (1) the actions federal, state, and local authorities are taking to adapt to climate change; (2) the challenges that federal, state, and local officials face in their efforts to adapt and actions federal agencies could take to help address these challenges; and (3) the extent to which federal funding for adaptation and other climate change activities is consistently tracked and reported and aligned with strategic priorities. The information in this testimony is based on prior work, largely on GAO's recent reports on climate change adaptation and federal climate change funding.

View [GAO-11-876T](#) or key components. For more information, contact David Trimble at (202) 512-3841 or trimbled@gao.gov.

July 28, 2011

CLIMATE CHANGE ADAPTATION

Aligning Funding with Strategic Priorities

What GAO Found

Federal, state, and local authorities are beginning to take steps to adapt to climate change. Federal agencies are beginning to respond to climate change systematically through an Interagency Climate Change Adaptation Task Force formed to recommend key components for inclusion in a national adaptation strategy. Individual agencies are also beginning to consider adaptation actions. For example, in May 2009, the Chief of Naval Operations created Task Force Climate Change to address the naval implications of a changing Arctic and global environment. Some state and local government authorities were beginning to plan for and respond to climate change impacts, GAO reported in 2009. For example, the state of Maryland had a strategy for reducing vulnerability to climate change, which focused on protecting habitat and infrastructure from future risks associated with sea level rise and coastal storms. In another example, King County, Washington, established a countywide flood control zone district to upgrade flood protection facilities and increase the county's resilience to future flooding, among other things.

Federal, state, and local officials face numerous challenges in their efforts to adapt to climate change, and further federal action could help them make more informed decisions. These challenges include a focus of available attention and resources on more immediate needs and insufficient site-specific data—such as local projections of expected climate changes. The lack of such data makes it hard to understand the impacts of climate change and thus hard for officials to justify the cost of adaptation efforts, since future benefits are potentially less certain than current costs. GAO's October 2009 report identified potential federal actions for improving adaptation efforts, including actions to provide and interpret site-specific information, which could help officials understand the impacts of climate change at a scale that would enable them to respond. In a May 2008 report on the economics of policy options to address climate change, GAO identified actions Congress and federal agencies could take, such as reforming insurance subsidy programs in areas vulnerable to hurricanes or flooding.

Funding for adaptation and other federal climate change activities could be better tracked, reported, and aligned with strategic priorities. GAO's report on federal climate change funding suggests that methods for defining and reporting such funding are not consistently interpreted and applied across the federal government. GAO also identified two key factors that complicate efforts to align funding with priorities. First, officials across a broad range of federal agencies lack a shared understanding of priorities, partly due to the multiple, often inconsistent messages articulated in different policy documents, such as strategic plans. Second, existing mechanisms intended to align funding with governmentwide priorities are nonbinding and limited when in conflict with agencies' own priorities. Federal officials who responded to a Web-based questionnaire, available literature, and stakeholders involved in climate change funding identified several ways to better align federal climate change funding with strategic priorities. These include a governmentwide strategic planning process that promotes a shared understanding among agencies of strategic priorities by articulating what they are expected to do within the overall federal response to climate change.

Chairman Durbin, Ranking Member Moran, and Members of the Subcommittee:

I am pleased to be here today to discuss the extent to which federal long-term budget planning contemplates changes in the frequency and severity of weather events that may occur as a result of changes in the climate. A 2009 assessment by the United States Global Change Research Program (USGCRP) found that many types of extreme weather events, such as heat waves and regional droughts, have become more frequent and intense during the past 40 to 50 years and that changes in these kinds of extreme weather and climate events are among the most serious challenges to our nation in coping with a changing climate.¹ According to the assessment, changes in extreme weather and climate events will affect human health, water supply, agriculture, coastal areas, and many other aspects of society and the natural environment.

Federal, state, and local agencies are tasked with a wide array of responsibilities, such as managing natural resources, that will be affected by a changing climate. Climate change also has implications for the fiscal health of the federal government, affecting federal crop and flood insurance programs, and placing new stresses on infrastructure. Further, in February 2010 the Department of Defense (DOD) issued its Quadrennial Defense Review report.² That report noted that:

“while climate change alone does not cause conflict, it may act as an accelerant of instability or conflict, placing a burden to respond on civilian institutions and militaries around the world. In addition, extreme weather events may lead to increased demands for defense support to civil authorities for humanitarian assistance or disaster response both within the United States and overseas.”

¹USGCRP coordinates and integrates federal research on changes in the global environment—including climate change—and their implications for society. According to a simplified National Aeronautics and Space Administration description, “Weather is what conditions of the atmosphere are over a short period of time, and climate is how the atmosphere ‘behaves’ over relatively long periods of time. When we talk about climate change, we talk about changes in long-term averages of daily weather.”

²According to DOD, the Quadrennial Defense Review (QDR) is to set a long-term course for DOD as it assesses the threats and challenges that the nation faces and re-balances DOD's strategies, capabilities, and forces to address today's conflicts and tomorrow's threats. As required by law, the most recent QDR examined the capabilities of the armed forces to respond to the consequences of climate change, in particular, preparedness for natural disasters from extreme weather events and other missions the armed forces may be asked to support inside the U.S. and overseas.

In recent years, climate change adaptation—defined as adjustments to natural or human systems in response to actual or expected climate change—has begun to receive more attention because the greenhouse gases already in the atmosphere are expected to continue altering the climate system into the future, regardless of efforts to control emissions. According to the National Research Council, however, individuals and institutions whose futures will be affected by climate change are unprepared both conceptually and practically for meeting the challenges and opportunities it presents. In this context, adapting to climate change requires making policy and management decisions that cut across traditional economic sectors, jurisdictional boundaries, and levels of government. We have previously reported that when agencies do not collaborate well when addressing a complicated, interdisciplinary issue like climate change, they may carry out programs in a fragmented, uncoordinated way, resulting in a patchwork of programs that can limit the overall effectiveness of the federal effort.³

My testimony today addresses (1) the actions federal, state, and local authorities are taking to adapt to climate change; (2) the challenges that federal, state, and local officials face in their efforts to adapt and actions federal agencies could take to help address these challenges; and (3) the extent to which federal funding for adaptation and other climate change activities is consistently tracked and reported and aligned with strategic priorities. The information in this testimony is based on prior work, largely on our recent reports on climate change adaptation and federal climate change funding.⁴ Additional information on our scope and methodology is available in each issued product. All of the work on which this statement is based was performed in accordance with generally accepted government auditing standards.

³GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, [GAO-06-15](#) (Washington, D.C.: Oct. 21, 2005), and *Managing for Results: Barriers to Interagency Coordination*, [GAO/GGD-00-106](#) (Washington, D.C.: Mar. 29, 2000).

⁴GAO, *Climate Change Adaptation: Strategic Federal Planning Could Help Government Officials Make More Informed Decisions*, [GAO-10-113](#), (Washington, D.C.: Oct. 7, 2009), and *Climate Change: Improvements Needed to Clarify National Priorities and Better Align Them with Federal Funding Decisions*, [GAO-11-317](#), (Washington, D.C.: May 20, 2011).

Federal, State, and Local Authorities Are Beginning to Take Steps to Adapt to Climate Change

Our October 2009 report on climate change adaptation found no coordinated national approach to adaptation, but our May 2011 report on climate change funding cited indications that federal agencies were beginning to respond to climate change more systematically.⁵ About the same time as the issuance of our October 2009 report, Executive Order 13514 on Federal Leadership in Environmental, Energy, and Economic Performance called for federal agencies to participate actively in the Interagency Climate Change Adaptation Task Force.⁶ The task force, which began meeting in Spring 2009, is co-chaired by the Council on Environmental Quality (CEQ), the National Oceanic and Atmospheric Administration (NOAA), and the Office of Science and Technology Policy (OSTP), and includes representatives from more than 20 federal agencies and executive branch offices. The task force was formed to develop federal recommendations for adapting to climate change impacts both domestically and internationally and to recommend key components to include in a national strategy.

On October 14, 2010, the task force released its interagency report outlining recommendations to the President for how federal policies and programs can better prepare the United States to respond to the impacts of climate change. The report recommends that the federal government implement actions to expand and strengthen the nation's capacity to better understand, prepare for, and respond to climate change. These recommended actions include making adaptation a standard part of agency planning to ensure that resources are invested wisely and services and operations remain effective in a changing climate. According to CEQ officials, the task force will continue to meet as an interagency forum for discussing the federal government's adaptation approach and to support and monitor the implementation of recommended actions in the progress report. The task force is due to release another report in October 2011 that documents progress toward implementing its recommendations and provides additional recommendations for refining

⁵See [GAO-10-113](#) and [GAO-11-317](#). For a list of federal adaptation efforts by agency as of 2009, see *Climate Change Adaptation: Information on Selected Federal Efforts to Adapt To a Changing Climate* ([GAO-10-114SP](#), October 7, 2009), an E-supplement to [GAO-10-113](#), [GAO-10-114SP](#), (Washington, D.C.: October 2009).

⁶For more information about the Interagency Climate Change Adaptation Task Force, see <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>.

the federal approach to adaptation, as appropriate, according to CEQ officials.⁷

Individual agencies are also beginning to consider adaptation actions. For example, in May 2009, the Chief of Naval Operations created Task Force Climate Change to address the naval implications of a changing Arctic and global environment. The Task Force was created to make recommendations to Navy leadership regarding policy, investment, and action, and to lead public discussion. In addition, the U.S. Department of the Interior issued an order in September 2009 designed to address the impacts of climate change on the nation's water, land, and other natural and cultural resources.⁸ Among other things, the order requires each bureau and office in the department to consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, developing multi-year management plans, and making major decisions regarding potential use of resources. In another example, according to NOAA, its Regional Integrated Sciences and Assessments (RISA) program supports climate change research to meet the needs of decision makers and policy planners at the national, regional, and local levels.

In October 2009, we reported that some state and local authorities were beginning to plan for and respond to climate change impacts.⁹ We visited three U. S. sites in doing the work for that report—New York City; King County, Washington; and the state of Maryland—where state and local

⁷The White House Council on Environmental Quality, *Progress Report of the Interagency Climate Change Adaptation Task Force: Recommended Actions in Support of a National Climate Change Adaptation Strategy* (October 5, 2010). This report is available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/Interagency-Climate-Change-Adaptation-Progress-Report.pdf>.

⁸Secretarial Order No. 3289 (Sept. 14, 2009), as amended by Secretarial Order No. 3289, Amendment No. 1 (Feb. 22, 2010). As originally enacted, the order also designated eight regional Climate Change Response Centers, which were subsequently renamed Climate Science Centers. According to the Department of the Interior, these centers will synthesize existing climate change impact data and management strategies, help resource managers put them into action on the ground, and engage the public through education initiatives. Interior has also identified specific adaptation strategies and tools for natural resource managers. For example, Interior provided a number of adaptation-related policy options for land managers in reports produced for its Climate Change Task Force, a past effort that has since been expanded upon to reflect new priorities.

⁹[GAO-10-113](#).

officials were taking such steps. We have not evaluated the progress of these initiatives since the issuance our 2009 report.

- *New York City*: New York City's adaptation efforts stemmed from a growing recognition of the vulnerability of the city's infrastructure to natural disasters, such as the severe flooding in 2007 that led to widespread subway closures. At the time of our October 2009 report, New York City's adaptation efforts typically had been implemented as facilities were upgraded or as funding became available. For example, the city's Department of Environmental Protection (DEP), which manages water and wastewater infrastructure, had begun to address flood risks to its wastewater treatment facilities. These and other efforts are described in DEP's *2008 Climate Change Program Assessment and Action Plan*.¹⁰ Many of New York City's wastewater treatment plants, such as Tallman Island, are vulnerable to sea level rise and flooding from storm surges because they are located in the floodplain next to the bodies of water into which they discharge. In response to this threat, DEP planned to, in the course of scheduled renovations, raise sensitive electrical equipment, such as pumps and motors, to higher levels to protect them from flood damage.
- *King County, Washington*: According to officials from the King County Department of Natural Resources and Parks (DNRP), the county took steps to adapt to climate change because its leadership was highly aware of climate impacts on the county. For example, in November 2006, the county experienced severe winter storms that caused a series of levees to crack. The levees had long needed repair, but the storm damage helped increase support for the establishment of a countywide flood control zone district, funded by a dedicated property tax.¹¹ The flood control zone district planned to use the funds, in part, to upgrade flood protection facilities to increase the county's resilience to future flooding. In addition to more severe winter storms, the county expected that climate change would lead to sea level rise; reduced snowpack; and summertime extreme weather such as heat waves

¹⁰New York City Department of Environmental Protection Climate Change Program, with contributions by Columbia University's Center for Climate Systems Research and HydroQual Environmental Engineers & Scientists, P.C., *Report 1: Assessment and Action Plan—A Report Based on the Ongoing Work of the DEP Climate Change Task Force* (New York City, N.Y., 2008).

¹¹King County Ordinance 15728 (Apr. 25, 2007). The district is funded by a countywide ad valorem property tax levy of 10 cents per \$1,000 assessed value.

and drought, which can lead to power shortages because hydropower is an important source of power in the region. The University of Washington Climate Impacts Group, funded by NOAA's RISA program, has had a long-standing relationship with county officials and worked closely with them to provide regionally specific climate change data and modeling, such as a 2009 assessment of climate impacts in Washington, as well as decision-making tools.¹²

- *Maryland*: Maryland officials took a number of steps to formalize their response to climate change effects. An executive order in 2007 established the Maryland Commission on Climate Change, which released the Maryland Climate Action Plan in 2008.¹³ As part of this effort, the Maryland Department of Natural Resources (DNR) chaired an Adaptation and Response Working Group, which issued a report on sea level rise and coastal storms.¹⁴ The *2008 Maryland Climate Action Plan* calls for future adaptation strategy development to cover other sectors, such as agriculture and human health. Additionally, Maryland provided guidance to coastal counties to assist them with incorporating the effects of climate change into their planning documents. For example, DNR funded guidance documents to three coastal counties—Dorchester, Somerset, and Worcester Counties—on how to address sea level rise and other coastal hazards in their local ordinances and planning efforts.¹⁵

¹²University of Washington Climate Impacts Group, *The Washington Climate Change Impacts Assessment: Evaluating Washington's Future in a Changing Climate* (Seattle, Wash., 2009).

¹³Maryland Commission on Climate Change, *Climate Action Plan* (Annapolis, Md., 2008).

¹⁴Maryland Commission on Climate Change Adaptation and Response Working Group, *Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change Phase I: Sea Level Rise and Coastal Storms*.

¹⁵Wanda Diane Cole, Maryland Eastern Shore Resource Conservation & Development Council, *Sea Level Rise: Technical Guidance for Dorchester County*, a special report prepared at the request of the Maryland Department of Natural Resources, March 2008; URS and RCQuinn Consulting, Inc., *Somerset County Maryland Rising Sea Level Guidance*, a special report prepared at the request of Somerset County, Maryland, Annapolis, Md., 2008; and CSA International Inc., *Sea Level Rise Response Strategy Worcester County, Maryland*, a special report prepared at the request of Worcester County, Maryland Department of Comprehensive Planning, September 2008.

Government Officials Face Numerous Challenges When Considering Adaptation Efforts, and Further Federal Action Could Help Them Make More Informed Decisions

In our prior work, we found that the challenges faced by federal, state, and local officials in their efforts to adapt to climate change fell into several categories:

- *Focusing on immediate needs.* Available attention and resources were focused on more immediate needs, making it difficult for adaptation efforts to compete for limited funds. For example, several federal, state, and local officials who responded to a questionnaire we prepared for our October 2009 report on adaptation noted how difficult it is to convince managers of the need to plan for long-term adaptation when they are responsible for more urgent concerns that have short decision-making time frames. One federal official explained that “it all comes down to resource prioritization. Election and budget cycles complicate long-term planning such as adaptation will require. Without clear top-down leadership setting this as a priority, projects with benefits beyond the budget cycle tend to get raided to pay current-year bills to deliver results in this political cycle.”
- *Insufficient site-specific data.* Without sufficient site-specific data, such as local projections of expected changes, it is hard to predict the impacts of climate change and thus hard for officials to justify the current costs of adaptation efforts for potentially less certain future benefits. This is similar to what we found in past work on climate change on federal lands. Specifically, our August 2007 report demonstrated that land managers did not have sufficient site-specific information to plan for and manage the effects of climate change on the federal resources they oversee.¹⁶ In particular, the managers lacked computational models for local projections of expected changes. For example, at the time of our review, officials at the Florida Keys National Marine Sanctuary said that they did not have adequate modeling and scientific information to enable managers to predict the effects of climate change on a small scale, such as that occurring within the sanctuary.¹⁷ Without such modeling and information, most of the managers’ options for dealing with climate change were limited to reacting to already-observed effects on their units, making it difficult to

¹⁶GAO. *Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources*, [GAO-07-863](#), (Washington, D.C.: Aug. 7, 2007)

¹⁷We conducted our work for [GAO-07-863](#) between May 2006 and July 2007. The agencies involved with this work are now beginning to consider climate change adaptation in planning decisions.

plan for future changes. Furthermore, these resource managers said that they generally lacked detailed inventories and monitoring systems to provide them with an adequate baseline understanding of the plant and animal species that existed on the resources they manage. Without such information, it is difficult to determine whether observed changes are within the normal range of variability.

- *Lack of clear roles and responsibilities.* Adaptation efforts are constrained by a lack of clear roles and responsibilities among federal, state, and local agencies. Of particular note, about 70 percent (124 of 178) of the federal, state, and local officials who responded to a questionnaire we prepared for our October 2009 report on adaptation rated the “lack of clear roles and responsibilities for addressing adaptation across all levels of government” as very or extremely challenging. For example, according to one respondent, “there is a power struggle between agencies and levels of government...Everyone wants to take the lead rather than working together in a collaborative and cohesive way.”

These challenges make it harder for officials to justify the current costs of adaptation efforts for potentially less certain future benefits. A 2009 report by the National Research Council discusses how officials are struggling to make decisions based on future climate scenarios instead of past climate conditions.¹⁸ According to the report, requested by the Environmental Protection Agency and NOAA, usual practices and decision rules (for building bridges, implementing zoning rules, using private motor vehicles, and so on) assume a stationary climate—a continuation of past climate conditions, including similar patterns of variation and the same probabilities of extreme events. According to the National Research Council report, that assumption, which is fundamental to the ways people and organizations make their choices, is no longer valid; Climate change will create a novel and dynamic decision environment.

We reached similar conclusions in a March 2007 report that highlighted how historical information may no longer be a reliable guide for decision

¹⁸National Research Council (2009), *Informing Decision in a Changing Climate*. Panel on Strategies and Methods for Climate-Related Decision Support, Committee on the Human Dimensions of Global Change, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

making.¹⁹ We reported on the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program, which insures properties against flooding, and the U.S. Department of Agriculture's (USDA) Federal Crop Insurance Corporation, which insures crops against drought or other weather disasters. Among other things, the report contrasted the experience of private and public insurers. We found that many major private insurers were proactively incorporating some near-term elements of climate change into their risk management practices. In addition, other private insurers were approaching climate change at a strategic level by publishing reports outlining the potential industry-wide impacts and strategies to proactively address the issue.

In contrast, we noted that the agencies responsible for the nation's two key federal insurance programs had done little to develop the kind of information needed to understand their programs' long-term exposure to climate change for a variety of reasons. As a FEMA official explained, the National Flood Insurance Program is designed to assess and insure against current—not future—risks. Unlike the private sector, neither this program nor the Federal Crop Insurance Corporation had analyzed the potential impacts of an increase in the frequency or severity of weather-related events on their operations over the near- or long-term. The proactive view of private insurers in our 2007 report was echoed on March 17, 2009, by the National Association of Insurance Commissioners, which adopted a mandatory requirement that insurance companies disclose to regulators the financial risks they face from climate change, as well as actions the companies are taking to respond to those risks. We have not studied the progress of these specific programs in managing the nation's long-term exposure to climate change since the issuance of our 2007 report.

Based on information obtained from studies, visits to sites pursuing adaptation efforts, and responses to a Web-based questionnaire sent to federal, state, and local officials knowledgeable about adaptation, our October 2009 report identified three categories of potential federal actions for addressing challenges to adaptation efforts:

- First, training and education efforts could increase awareness among government officials and the public about the impacts of climate change and available adaptation strategies. A variety of programs are

¹⁹GAO, *Climate Change: Financial Risks to Federal and Private Insurers in Coming Decades Are Potentially Significant*, [GAO-07-285](#), (Washington, D.C.: Mar. 16, 2007)

trying to accomplish this goal, such as the Chesapeake Bay National Estuarine Research Reserve (partially funded by NOAA), which provides education and training on climate change to the public and local officials in Maryland.

- Second, actions to provide and interpret site-specific information could help officials understand the impacts of climate change at a scale that would enable them to respond. About 80 percent of the respondents to our Web-based questionnaire rated the “development of state and local climate change impact and vulnerability assessments” as very or extremely useful.
- Third, Congress and federal agencies could encourage adaptation by clarifying roles and responsibilities. About 71 percent of the respondents to our Web-based questionnaire rated the development of a national adaptation strategy as very or extremely useful. Furthermore, officials we spoke with and officials who responded to our questionnaire said that a coordinated federal response would also demonstrate a federal commitment to adaptation. Importantly, our October 2009 report recommended that within the Executive Office of the President the appropriate entities, such as CEQ, develop a national adaptation plan that includes setting priorities for federal, state, and local agencies. CEQ generally agreed with our recommendation.

Some of our other recent climate change-related reports offer additional examples of the types of actions federal agencies and the Congress could take to assist states and communities in their efforts to adapt. Our August 2007 report, for example, recommended that certain agencies develop guidance advising managers on how to address the effects of climate change on the resources they manage.²⁰ Furthermore, our May 2008 report on the economics of policy options to address climate change identified actions Congress and federal agencies could take, such as reforming insurance subsidy programs in areas vulnerable to hurricanes or flooding.²¹

²⁰[GAO-07-863](#).

²¹*Climate Change: Expert Opinion on the Economics of Policy Options to Address Climate Change*, [GAO-08-605](#), (Washington, D.C.: May 9, 2008).

Funding for Adaptation and Other Federal Climate Change Activities Could be Better Tracked, Reported, and Aligned with Strategic Priorities

Our May 2011 report on federal climate change funding found that (1) agencies do not consistently interpret methods for defining and reporting the funding of climate change activities, (2) key factors complicate efforts to align such funding with strategic priorities, and (3) options are available to better align federal funding with strategic priorities, including governmentwide strategic planning.²² Any effective federal climate change adaptation strategy will need to ensure that federal funds are properly tracked and that funding decisions are aligned with strategic priorities. Given the interdisciplinary nature of the issue, such alignment is a challenge as formidable as it is necessary to address.

In our report, we identified three methods for defining and reporting climate change funding, foremost of which is guidance contained in OMB's Circular A-11.²³ The circular directs agencies to report funding that meet certain criteria in three broad categories—research, technology, and international assistance. According to OMB staff, Circular A-11 is the primary method for defining and reporting long-standing “cross-cuts” of funding for climate change activities. Interagency groups, such as USGCRP have collaborated in the past with OMB to clarify the definitions in Circular A-11, according to comments from CEQ, OMB, and OSTP.²⁴

Our work suggests that existing methods for defining and reporting climate change funding are not consistently interpreted and applied across the federal government.²⁵ Specifically, for our May 2011 report, we sent a Web-based questionnaire to key federal officials involved in defining and reporting climate change funding, developing strategic priorities, or aligning funding with strategic priorities. Most of these respondents indicated that their agencies consistently applied methods for defining and reporting climate change funding. Far fewer respondents indicated that methods for defining and reporting climate change funding were applied consistently across the federal government. Some

²²[GAO-11-317](#).

²³The other methods identified by respondents were guidance from interagency programs and periodic “data calls” to collect information for unique reporting needs.

²⁴CEQ, OMB, and OSTP submitted consolidated technical comments on our May 2011 report. These comments are reflected in this statement as appropriate.

²⁵In [GAO-11-317](#) we analyzed OMB funding reports and responses to a Web-based questionnaire sent to key federal officials with the assistance of the Executive Office of the President and interagency coordinating bodies.

respondents, for example, noted that other agencies use their own interpretation of definitions, resulting in inconsistent accounting across the government. Respondents generally identified key reasons agencies may interpret and apply existing methods differently, including difficulty determining which programs are related to climate change.²⁶ In comments to our May 2011 report, CEQ, OMB, and OSTP noted that consistency likely varies by method of reporting, with Circular A-11 being the most consistent and other methods being less so.

In addition, our work identified two key factors that complicate efforts to align federal climate change funding with strategic priorities across the federal government. First, federal officials lack a shared understanding of priorities, partly due to the multiple, often inconsistent messages articulated in different sources, such as strategic plans.²⁷ Our review of these sources found that there is not currently a consolidated set of strategic priorities that integrates climate change programs and activities across the federal government. As we stated in our May 2011 report, in the absence of clear, overarching priorities, federal officials are left with many different sources that present climate change priorities in a more fragmented way. The multiple sources for communicating priorities across the climate change enterprise may result in conflicting messages and confusion.

The second key factor that complicates efforts to align federal funding with priorities is that existing mechanisms intended to do so are nonbinding, according to respondents, available literature, and stakeholders. For example, some respondents noted that the interagency policy process does not control agency budgets and that agencies with their own budget authority may pay little attention to federal strategic priorities. In other words, federal strategic priorities set through an interagency process may not be reflected in budget decisions for individual agencies.

²⁶These key reasons are discussed in detail in our May 2011 report: [GAO-11-317](#).

²⁷These sources include (1) strategic plans for interagency programs and agencies, (2) executive-level guidance memoranda, (3) the development of new interagency initiatives, (4) regulations and guidance memoranda, (5) international commitments, and (6) testimony of federal executives before Congress.

As OSTP officials acknowledged to us, “The major challenge is the need to connect climate science programs with broader inter- and intra-agency climate efforts.” In comments to our report, OSTP stated that while significant progress is being made in linking the climate science-related efforts, individual agencies still want to advance initiatives that promote or serve their agency missions. This, according to OSTP, yields a broader challenge of tying climate-related efforts (science, mitigation, and adaptation) together into a coherent governmentwide strategy.

Our May 2011 report identified several ways to better align federal climate change funding with strategic priorities, including: (1) options to improve the tracking and reporting of climate change funding, (2) options to enhance how strategic climate change priorities are set, (3) the establishment of formal coordination mechanisms, and (4) continuing efforts to link related climate change activities across the federal government.²⁸ Specific options are discussed in detail in our May 2011 report and include a governmentwide strategic planning process that promotes a shared understanding among agencies of strategic priorities by articulating what they are expected to do within the overall federal response to climate change. Also discussed in detail is an integrated budget review process that better aligns these priorities with funding decisions through a more consistent method of reporting and reviewing climate change funding.

Federal entities are beginning to implement some of these options. For example, there has been some recent progress on linking related federal climate change programs, according to OSTP. Specifically, OSTP stated that the science portion of the CEQ, NOAA, and OSTP-led Climate Change Adaptation Task Force is being integrated within USGCRP. OSTP also stated that it is working to create an interagency body that will bring together agencies that provide climate services to allow for better links between climate services and other federal climate-related activities.

To further improve the coordination and effectiveness of federal climate change programs and activities, we recommended in our May 2011 report that the appropriate entities within the Executive Office of the President, in consultation with Congress, clearly establish federal strategic climate

²⁸These were identified by respondents, available literature, and stakeholders.

change priorities and assess the effectiveness of current practices for defining and reporting related funding.

Chairman Durbin, Ranking Member Moran, and Members of the Subcommittee, this concludes my prepared statement. I would be happy to respond to any questions that you or other Members of the Subcommittee may have.

Contacts and Acknowledgements

For further information about this testimony, please contact David Trimble at (202) 512-3841 or trimbled@gao.gov. Contact points for our Congressional Relations and Public Affairs offices may be found on the last page of this statement. Steve Elstein, Cindy Gilbert, Ben Shouse, Jeanette Soares, Kiki Theodoropoulos, and J. Dean Thompson also made key contributions to this statement.

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