

GAO Highlights

Highlights of [GAO-16-37](#), a report to congressional requesters

Why GAO Did This Study

Over the last decade, the federal government incurred over \$300 billion in costs due to extreme weather and fire, according to the President's 2016 budget request. Costs are expected to grow as rare events become more common and intense due to climate change, according to the National Academies. State, local, and private sector decision makers also drive fiscal exposures, as they are responsible for infrastructure paid for with federal funds or eligible for disaster aid. GAO's 2015 High-Risk update prioritized improving federal efforts to provide the best available climate information and technical assistance to help decision makers use the information to build resilience in up front.

This report examines (1) the extent to which federal efforts meet the climate information needs of decision makers; (2) examples of how other countries organized climate information systems; (3) whether and how federal efforts could be improved; and (4) the strengths and limitations of different options to provide climate information. GAO analyzed reports; reviewed systems in three other countries; and interviewed stakeholders with knowledge of climate information.

What GAO Recommends

GAO recommends that the Executive Office of the President (EOP) direct a federal entity to develop a set of authoritative climate change projections and observations and create a national climate information system with defined roles for federal agencies and nonfederal entities. Relevant EOP entities provided only technical comments, which GAO incorporated as appropriate.

View [GAO-16-37](#). For more information, contact J. Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov.

November 2015

CLIMATE INFORMATION

A National System Could Help Federal, State, Local, and Private Sector Decision Makers Use Climate Information

What GAO Found

Many federal efforts are under way, but the climate information needs of federal, state, local, and private sector decision makers are not being fully met, according to recent GAO reports, National Academies and other studies, and interviews with stakeholders. The November 2013 Executive Order 13653 on *Preparing the United States for the Impacts of Climate Change* calls on certain federal agencies to work together to provide authoritative information on climate preparedness and resilience. However, the federal government's own climate data—composed of observational records from satellites and weather stations and projections from climate models—are fragmented across individual agencies that use the information in different ways to meet their missions. GAO's February 2015 High-Risk update found that federal, state, local, and private sector decision makers may be unaware that climate information exists or be unable to use what is available.

Germany, the Netherlands, and the United Kingdom have well-established climate information systems, although each country's system is organized somewhat differently. In each, the government provides direction and funding, and entities within and outside the government provide technical assistance to help decision makers understand how to use climate information in planning.

Federal climate information efforts could be improved by incorporating key organizational and data elements, according to GAO reports, studies by the National Academies and other organizations, site visits to three countries with climate information systems, and interviews with stakeholders. Specifically, the key elements are (1) a focused and accountable organization, (2) authoritative data that define the best available information for decision makers, and (3) technical assistance to help decision makers access, translate, and use climate information in planning. Authoritative locally-focused information is crucial because it defines a common starting point for decision makers, and most decisions are made at the local level.

Options to provide climate information and technical assistance to decision makers have strengths and limitations, according to studies, international site visits, and interviews with stakeholders. For example, a new federal agency would have a focused mission but could face turf conflicts with existing programs at other agencies. On the other hand, a national climate information system could be developed that would incorporate the best features and address the limitations of these options. Similar to the programs in Germany, the Netherlands, and the United Kingdom, a national system to provide climate information to U.S. decision makers could have roles for federal and nonfederal entities. Based on GAO's review of systems in other countries, studies, and interviews with stakeholders, a key federal role in a national climate information system would be to provide authoritative data and quality assurance guidelines for how to use the data. A nonfederal entity would be better positioned to provide on-the-ground technical assistance and facilitate connections between decision makers and intermediaries with expertise.