CLIMATE CHANGE
Opportunities to Reduce Federal Fiscal Exposure

What GAO Found

The estimated economic effects of climate change, while imprecise, can convey useful insight about potential damages in the United States. In September 2017, GAO reported that the potential economic effects of climate change could be significant and unevenly distributed across sectors and regions (see figure). This is consistent with the recent findings of the U.S. Global Change Research Program’s Fourth National Climate Assessment, which concluded, among other things, that the continued increase in the frequency and extent of high-tide flooding due to sea level rise threatens America’s trillion-dollar coastal infrastructure.

Examples of Potential Economic Effects from Climate Change by 2100

Information about the potential economic effects of climate change could inform decision makers about significant potential damages in different U.S. sectors or regions. According to prior GAO work, this information could help decision makers identify significant climate risks as an initial step toward managing them. The federal government faces fiscal exposure from climate change risks in several areas, including:

- **Disaster aid:** due to the rising number of natural disasters and increasing reliance on federal assistance. GAO has previously reported that the federal government does not adequately plan for disaster resilience. GAO has also reported that, due to an artificially low indicator for determining a jurisdiction’s ability to respond to disasters that was set in 1986, the Federal Emergency

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Management Agency risks recommending federal assistance for jurisdictions that could recover on their own.

- **Federal insurance for property and crops**: due, in part, to the vulnerability of insured property and crops to climate change impacts. Federal flood and crop insurance programs were not designed to generate sufficient funds to fully cover all losses and expenses. The flood insurance program, for example, was about $21 billion in debt to the Treasury as of April 2019. Further, the Congressional Budget Office estimated in May 2019 that federal crop insurance would cost the federal government an average of about $8 billion annually from 2019 through 2029.

- **Operation and management of federal property and lands**: due to the hundreds of thousands of federal facilities and millions of acres of land that could be affected by a changing climate and more frequent extreme events. For example, in 2018, Hurricane Michael devastated Tyndall Air Force Base in Florida, with a preliminary repair estimate of $3 billion.

The federal budget, however, does not generally account for disaster assistance provided by Congress or the long-term impacts of climate change on existing federal infrastructure and programs. GAO has reported that more complete information about fiscal exposure could help policymakers better understand the trade-offs when making spending decisions.

Further, federal investments in resilience to reduce fiscal exposures have been limited. As GAO has reported, enhancing resilience can reduce fiscal exposure by reducing or eliminating long-term risk to people and property from natural hazards. For example, a 2018 interim report by the National Institute of Building Sciences estimated approximate benefits to society in excess of costs for several types of resilience projects. While precise benefits are uncertain, the report estimated that for every dollar invested in designing new buildings to particular design standards, society could accrue benefits amounting to about $11 on average.

The federal government has invested in individual agency efforts that could help build resilience within existing programs or projects. For example, the National Climate Assessment reported that the U.S. military integrates climate risks into its analysis, plans, and programs. In addition, as GAO reported in March 2019, the Disaster Recovery Reform Act of 2018 could improve resilience by allowing the President to set aside a portion of certain grants for pre-disaster mitigation. However, the federal government has not undertaken strategic government-wide planning to manage climate risks.

GAO’s March 2019 High-Risk report identified a number of recommendations GAO has made related to fiscal exposure to climate change. The federal government could reduce its fiscal exposure by implementing these recommendations. Among GAO’s key government-wide recommendations are:

- Entities within the Executive Office of the President (EOP) should work with partners to establish federal strategic climate change priorities that reflect the full range of climate-related federal activities;
- Entities within EOP should use information on potential economic effects from climate change to help identify significant climate risks and craft appropriate federal responses;
- Entities within EOP should designate a federal entity to develop and update a set of authoritative climate observations and projections for use in federal decision making, and create a national climate information system with defined roles for federal agencies and certain nonfederal entities; and
- The Department of Commerce should convene federal agencies to provide the best-available forward-looking climate information to organizations that develop design standards and building codes to enhance infrastructure resilience.