

Why GAO Did This Study

Agricultural production is projected to decline in regions with increased frequency and duration of climate change impacts, according to the *Fourth National Climate Assessment*. Congress has appropriated more than \$15 billion in agricultural disaster relief in recent years. Extreme weather events also create fiscal exposure from the federal crop insurance program. In 2021, this program insured over 100 agricultural commodities, with a total program liability of \$136.6 billion. In 2013, GAO added *Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks* to its High Risk List. Enhancing climate resilience—acting to reduce potential losses by planning for climate hazards—can help manage risks.

GAO was asked to review federal efforts to enhance the climate resilience of agriculture agricultural producers. This report examines (1) USDA's efforts in this area and (2) potential options to further enhance them. GAO reviewed laws and regulations related to USDA's climate resilience efforts; analyzed literature; interviewed experts and agency officials; and used GAO's 2019 *Disaster Resilience Framework* to evaluate federal climate resilience activities.

What GAO Recommends

GAO is recommending that USDA further analyze the options and integrate them into its ongoing climate resilience planning, as appropriate. USDA agreed with GAO's recommendation.

View [GAO-23-104557](#). For more information, contact Steve Morris at (202) 512-3841 or morris@ga.gov.

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CLIMATE CHANGE

Options to Enhance the Resilience of Agricultural Producers and Reduce Federal Fiscal Exposure

What GAO Found

The U.S. Department of Agriculture (USDA) has efforts underway to encourage agricultural producers to enhance their resilience to climate change. Specifically, USDA has taken some steps to develop and disseminate information about climate change to producers and has goals to better integrate climate resilience into agency decision-making through annual updates to its climate adaptation and resilience plan. In addition, some USDA programs may provide indirect incentives for producers to enhance their climate resilience.

Through a review of literature and interviews with experts, GAO identified 13 potential options for USDA to enhance producers' climate resilience (see table). Each option has strengths and limitations. For example, regional climate resilience strategic planning could improve coordination, but achieving consensus across a diverse set of stakeholders could be challenging.

Potential Options for the U.S. Department of Agriculture (USDA) to Help Enhance Producers' Climate Resilience

1. Collect data on practices that enhance climate resilience.
2. Expand technical assistance to prioritize and promote climate resilience.
3. Prioritize climate resilience in whole-farm conservation planning.
4. Expand the capacity and expertise of USDA's Climate Hubs.
5. Develop an agricultural climate resilience plan that addresses regional needs.
6. Establish standards for climate-resilient agricultural operations.
7. Revise the Natural Resources Conservation Service's Conservation Practice Standards to include climate resilience.
8. Expand conservation program eligibility criteria to include and prioritize climate resilience.
9. Expand the capacity of USDA's conservation programs.
10. Research the feasibility of incorporating climate resilience into crop insurance rates.
11. Require producer adoption of climate-resilient practices to claim crop insurance premium subsidies.
12. Offer crop insurance premium subsidies for climate-resilient operations.
13. Require producer adoption of climate-resilient practices to maintain Farm Bill Title I program eligibility.

Source: GAO analysis. | GAO-23-104557

Implementing multiple options offers the most potential to improve the climate resilience of agricultural producers, according to experts and GAO's analysis using the *Disaster Resilience Framework*. This framework states that integrating strategic resilience goals can help decision makers focus on a wide variety of opportunities to reduce risk. USDA officials said that some of the options could be implemented administratively through resilience planning updates required by executive orders, while others would require additional authority. The appropriate mix of options is a policy choice that requires complex trade-off decisions. By analyzing options and incorporating them, as appropriate, in future climate resilience planning efforts, USDA could help meet its obligations under executive orders and inform legislative efforts to reduce fiscal exposure from the federal crop insurance program and agricultural disaster assistance programs.