

THE OPPORTUNITY PROJECT

2022 PROBLEM STATEMENT

Building Community and Individual Climate Resilience

Federal Emergency Management Agency (FEMA)

THE CHALLENGE – Create data-driven tools to help state, local, tribal, and territorial emergency managers, elected officials, and members of the public visualize both the risks of climate change to their communities and the impacts of implementing mitigation and adaptation strategies.

EXECUTIVE CHAMPION – Erin Hoffman, Director, Office of National Exercises and Technological Hazards, FEMA

THE PROBLEM – Climate change represents a profound crisis for the nation, making natural disasters more frequent, more intense, and more destructive. In 2020 alone, there were 22 weather and climate disaster events, with total losses exceeding [\\$1 billion across the U.S.](#) In comparison, the previous record set in both 2011 and 2017 was 16 disasters. Emergency managers in communities across the country face increasing demands generated by more extreme and frequent disasters – from wildfires and coastal storms to inland flooding – as well as climate-related emergencies such as drought and extreme heat.

The growing severity of disasters increases the time it takes for communities to recover – a process that can be further complicated by repeat events in areas already struggling to bounce back. These cascading and compounding impacts, propelled by climate change, pose the greatest risk to our communal and nationwide resilience. Natural disasters often disproportionately affect people in underserved communities where weakened infrastructure, fewer resources, and less support to invest in hazard mitigation can compound a disaster's impact.

To help confront these threats, we must enhance the nation's ability to anticipate, prepare for, and adapt to future climate conditions. This starts with fostering a common understanding of how climate change will reshape emergency management at both the community and household level, and includes building better resources and tools to drive understanding of future risk and enhance a community's ability to act. While [risk maps](#) and climate projection data for [specific hazards](#) exist, we do not yet have widely available tools to help communities and individuals prioritize mitigation strategies based on cost, impact, and other factors.

THE OPPORTUNITY – The challenges of climate change will continue to shape the next several decades. Individuals and communities must be empowered with knowledge about the benefits of climate adaptation resources available to them to reduce the risk of climate-related disasters.

Currently, a community's disaster risk is typically assessed based on past disaster activity, but due to the changing climate, this historical data is no longer indicative of future conditions. Communities now need access to future conditions data and modeling. Advanced climate forecasting capabilities in

government, non-profits, and the private sector can provide the information needed to improve understanding of risk and the relative benefits of different preparedness actions.

Preparing for the impacts of climate change also requires understanding why some communities are disproportionately impacted by climate-fueled disasters. Even within the same city, different communities will face differing levels of risk due to demographic, economic, and physical characteristics. It is important for communities to develop the capacity to access and interpret accurate information about this localized risk. This information will help communities and households better understand their own risks and identify the most appropriate resilience actions.

VISION FOR SPRINT OUTCOMES – Using accurate data on risk and outcomes of various climate adaptation strategies, future modeling techniques, and plain language messaging, emergency managers, state and local decision makers, and individuals will be better prepared to make informed and timely decisions to improve their resilience to the effects of climate change. The resulting tools will communicate highly technical information in easily understood, relatable ways to support individual and community decision making and help communities improve their climate resilience through systems-based investments in climate adaptation.

TARGET END USERS – State, local, tribal, and territorial emergency managers and elected officials, as well as city planners, transportation officials, public health authorities, individuals, households, NGOs serving them, and others involved in planning.

RELATED DATA SETS

- ↳ [Climate data](#), National Oceanic and Atmospheric Administration
- ↳ [Climate Change and Global Warming](#), NASA
- ↳ [Climate Hubs](#), USDA
- ↳ [Climate Change](#), EPA
- ↳ [About the Office of Climate Change and Health Equity \(OCCHE\)](#), HHS
- ↳ [Climate-Smart Communities, The Opportunity Project](#), Census
- ↳ [FEMA National Risk Index](#)

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