

HOMELAND SECURITY PROJECT | JUNE 2023

Climate Change Requires New Approaches to Disaster Planning and Response

David J. Hayes

This paper is part of a continuing publication series for the **Global Crisis & Resilience Forum** led by Juliette Kayyem, Faculty Chair of the Belfer Center's Homeland Security Program. The forum is supported by McKinsey & Company. The ideas in these papers are the independent product of the author.

Executive Summary

To date, most of the climate policy attention has been focused on the need to reduce the greenhouse gases that are causing climate change and, as a corollary, to accelerate the U.S. economy's transition from fossil fuels to clean energy. Yet climate change also is straining our nation's emergency response capabilities as traditional climate-infused disasters such as hurricanes and floods become more frequent and destructive. At the same time, the emergency response community faces new challenges as slower-to-develop climate impacts like drought, heat, and wildfire increasingly are hitting an acute tipping points and becoming life- and livelihood-threatening disasters.

Worsening climate impacts also require that the federal government help communities adapt and become more resilient in the face of known and growing climate change threats. To do this effectively, the time is ripe for the federal government to build new institutional mechanisms that identify best practices across the full spectrum of resilience needs and work more closely as partners with tribal, state, and local governments as they address the many and varying climate risks that they face.

This short essay addresses these key climate emergency response and resilience issues and offers specific recommendations for how the government can address them.

Issue 1. The federal government should apply a unified emergency response approach when responding to non-traditional, climate-infused disasters.

The Federal Emergency Management Agency (FEMA) is the familiar and largely effective face of the federal government when responding to disasters such as hurricanes, floods, and tornadoes. Due to climate change, the number and severity of these events is increasing dramatically, straining FEMA's ability to organize and apply its usual disaster response tools and sometimes exposing gaps in the size and skill level of FEMA's workforce and its ability to manage complex supply chains—particularly when multiple and varied extreme weather events are hitting different regions of the country in a rapid-fire manner.

Of greater concern to this author is the fact that FEMA, as our nation's premier disaster response agency, is not the federal disaster lead—and often is more akin to an awkward bystander—when slower-developing climate-infused disasters blow up into acute emergencies such as killer heat waves, devastating long-term droughts, and catastrophic wildfires.

For example, when a region is hit with a severe heat wave—a signature climate-related disaster—communities typically do not know where to turn for federal government help. FEMA's authorizing statute does not reference extreme heat as a disaster category and the agency has its hands full with other, more familiar disasters. As a result, impacted communities are often left without a centralized federal touchpoint to help them set up cooling centers, secure an influx of portable air conditioners, identify and procure relevant medical supplies, address business impacts, or the like.

Likewise, when a long-term drought causes drinking water wells and irrigation water sources to go dry, triggering the need for community-wide emergency water services and potential relocation assistance, who in the federal government stands ready to organize a federal relief effort? The Departments of Agriculture and Interior may be able to provide limited assistance, but neither agency has wide-ranging disaster response personnel or experience. It won't likely be FEMA either. Even though the Stafford Act explicitly acknowledges FEMA's authority to declare drought emergencies, it almost always declines to do—as it recently did in response to a request by 10

western governors in August 2021, when virtually the entire western U.S. was in the throes of devastating long-term drought.¹

Wildfire is another signature climate-infused disaster. When wildfires hit, the federal National Interagency Fire Center does an exemplary job in working with state and local authorities to fight the fires. But when it comes to addressing the immediate needs of impacted communities after the fires are extinguished, there is no consistent federal lead. Sometimes the firefighting agencies such as the Agriculture and Interior Departments take on a lead role. Or, in the case of the major wildfire that scorched northern New Mexico in 2022, it was the U.S. Army Corps of Engineers that stepped up and played a key recovery role.² FEMA also is typically in the picture by providing Fire Management Assistance Grants. But unlike most disasters, FEMA is not the lead agency operating a unified command center for wildfire recovery. Too often, a scrum of federal agencies are engaged and doing their best to deliver needed services in a sub-optimal, ad hoc manner without single agency accountability.

This is an unsatisfactory situation. Climate-infused disasters such as drought, extreme heat, and wildfires are becoming more frequent and more damaging. Each of these types of disasters deserves the same type of competent federal response treatment that hurricanes, floods, and other more traditional disasters typically receive—namely, an experienced and accountable federal emergency response lead such as FEMA that can bring well-trained experts and needed supplies to the disaster scene, while coordinating with and tapping appropriate resources and personnel from other federal, state and local agencies.

Recommendations: In response to this situation, the White House should undertake an administrative legal and policy review, in consultation with FEMA and other front-line agencies, that evaluates the potential broadening and deepening of FEMA's emergency response responsibilities for non-traditional climate-infused disasters. In particular, the review should:

- Identify and assess the effectiveness of federal government emergency responses in recent years to major drought, extreme heat, and wildfire disasters;
- Identify the type of federal emergency response skills, training, and supplies that should be available for these and other types of climate-related disasters;
- Analyze FEMA's discretion under the Stafford Act to make emergency disaster

1 Letter from Gov Spencer Cox et al. to Pres. Joseph R. Biden, Joint Request to Declare Federal Drought Disaster, Aug. 15, 2021, available at <https://bof.fire.ca.gov/media/z5cnvpak/4-gov-request-for-drought-disaster-declaration-08-15-2021.pdf>.

2 Simon Romero, "How New Mexico's Largest Wildfire Set Off a Drinking Water Crisis," *The New York Times*, Sept. 28, 2022.

declarations and lead the federal emergency response effort for major drought, extreme heat, wildfire and other climate-infused disasters; and

- Explore whether and, if so, how FEMA or other agencies might serve as the lead federal emergency response agency for these types of signature climate disasters.

Issue 2. The federal government should take additional steps to organize a strong, cohesive climate resilience effort that includes close coordination with impacted communities.

While FEMA has decades of deep experience in responding effectively to traditional disasters, the learning curve is steep for FEMA—and other federal agencies—in helping communities anticipate and become more resilient to climate impacts such as rising sea levels, storm surges, heat waves, inland flooding, catastrophic wildfires, and the like.

This is due to two key factors. The first is that the economic risks associated with climate impacts—and the fact that these risks are escalating as climate impacts become more frequent and severe—have only become widely acknowledged in recent years. The traditional norm has been to adopt a business-as-usual approach to rebuilding after disaster strikes.

But we now know that communities that have suffered climate impacts are likely to be hit again, and that communities which have avoided climate harms must brace for them. Given this reality, governmental and business leaders at all levels are now recognizing that they need to build stronger and smarter infrastructure that can withstand future climate-related impacts, invest in modern water systems that will blunt the impact of severe droughts, prepare for dangerous extreme heat events that will put residents' lives in danger, and so on.

The second, and related, reason why it is a propitious time to reset federal resilience planning and execution is the rapid increase in funding that Congress is providing to multiple agencies to address communities' resilience needs. Congress provided the first major slug of climate resilience spending to the Department of Housing and Urban Development (HUD) ten years ago in the aftermath of Superstorm Sandy. Since then, HUD's Community Development Block Grant Mitigation and Community Development Block Grant Disaster Recovery programs have grown steadily in size. Congress also has increased resilience funding for FEMA's mitigation programs over the past several years, including a quantum leap in 2018 when it authorized FEMA's Building

Resilient Infrastructure for Communities (BRIC) program to set aside six percent of FEMA massive disaster response spending for resilience-related investments. More recently, Congress earmarked approximately \$50 billion in the 2021 Bipartisan Infrastructure Law and \$10 billion more in the 2022 Inflation Reduction Act for resilience spending by multiple agencies, including the Departments of Agriculture, Interior, Energy and Commerce in response to a variety of climate-related threats, including extreme weather impacts on energy and coastal infrastructure, wildfires, long-term droughts, and heat waves.

The combination of heightened awareness of climate-related risks and increased federal funding to address resilience needs across a wide range of contexts has spurred a flurry of resilience activity in a number of federal agencies. From an organizational perspective, it is challenging to address resilience issues at the federal level because climate-related impacts manifest differently across and among departmental silos. For example, the Department of Transportation has deep experience regarding resilience needs for roads, bridges, and other transportation-related infrastructure; HUD has expertise on the housing front; and the Department of Energy is an expert on resilience strategies for transmission and other critical energy infrastructure. Also, for many climate impacts, multiple agencies bring specialized resilience expertise to the table such as, for example, National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce and the Interior Department for coastal resources; the General Services Administration for federal buildings; the U.S. Forest Service and the Interior Department for wildfire risk; Interior's Bureau of Reclamation, the Department of Agriculture, and the U.S. Army Corps of Engineers for long-term drought; and, for extreme heat, a clutch of agencies including the Department of Health and Human Services, EPA, NOAA and the Labor Department.

After four years of stalled progress in addressing climate resilience issues, President Biden's climate Executive Order 14008³ called on his administration "to implement a Government-wide approach" that "increases resilience to the impacts of climate change." Acting through its cabinet-level National Climate Task Force, the Administration addressed this pressing need by establishing an interagency working group structure that pulled together multiple agencies' resilience expertise and resources to coordinate federal resilience planning and action for top priority climate risks such as flood, drought, extreme heat, wildfire and coastal impacts.

The Biden Administration also has focused on ramping up individual federal agencies' resilience planning and execution. President Biden's sustainability Executive Order 14057⁴ outlined an ambitious path to prepare Federal agency policy, programs, operations, and infrastructure to adopt

3 Exec. Order No. 14,008, "Tackling the Climate Crisis at Home and Abroad," 86 Fed. Reg. 7619, Feb. 1, 2021, available at <https://www.govinfo.gov/content/pkg/FR-2021-02-01/pdf/2021-02177.pdf>.

4 Exec. Order No. 14,057, "Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability," 86 Fed. Reg. 70935, Dec. 13, 2021, available at <https://www.govinfo.gov/content/pkg/FR-2021-12-13/pdf/2021-27114.pdf>.

adaptive and resilient strategies for future climate impacts. In accordance with that directive, agencies have developed climate adaptation and resilience plans that evaluate the most significant climate-related risks and vulnerabilities for agency operations and missions, and identify action to manage those risks and vulnerabilities.

The combination of interagency working groups and agency-specific resilience planning has brought federal cooperation and resources to the table and facilitated related federal resilience initiatives, including the development of publicly available GIS-based tools that map projected climate impacts on a census tract basis⁵ and pool impact-specific information that will help communities prepare for impacts.⁶ Federal agencies that have significant resilience funding programs also are focusing on how to ensure that their financial resources get to communities that need it most—particularly disadvantaged communities that often bear the brunt of climate impacts.⁷

While Biden Administration initiatives have raised the visibility and effectiveness of resilience planning and execution at the federal level, the time is ripe to establish a more comprehensive and durable organizational approach that will (1) more firmly establish prioritization and accountability for climate resilience policy in the federal government; (2) establish a stronger link between the federal government and the states, tribes and local communities that are on the front lines of climate impacts and ensures that federal funding and other decisions fully take into account their interests and needs; and (3) create a durable organizational mechanism that optimizes cross-agency coordination for resilience policy development and implementation.

5 U.S. Global Change Research Program, “Climate Mapping for Resilience and Adaptation,” U.S. Climate Resilience Toolkit, <https://resilience.climate.gov/>.

6 See, e.g., National Oceanic and Atmospheric Administration, National Integrated Heat Health Information System, available at <https://www.heat.gov>.

7 See, e.g., Federal Emergency Management Agency, “FEMA Advances Equity, Provides Direct Support to Underserved Communities to Invest in Resilience,” press release (no. HQ-22-059), May 23, 2022, available at <https://www.fema.gov/press-release/20220523/fema-advances-equity-provides-direct-support-underserved-communities-invest>.

Recommendations: The federal government should expand its climate resilience initiatives by creating a durable climate resilience accountability structure in the Executive Office of the President; a formal structure to ensure that front-line community leaders and other key parties are fully engaged in federal resilience planning and execution; and a joint federal Resilience and Adaptation Center in FEMA or a specially-created cross-agency governmental unit. More specifically:

- To more firmly establish prioritization and accountability for climate resilience policy in the federal government, the President should:
 - a. Appoint a Chief Resilience Officer who sits in the Executive Office of the President.
 - b. Among other duties, the Chief Resilience Officer should oversee the development of a National Adaptation and Resilience Strategy framework and operational plan.⁸
- To establish a stronger link between the federal government and non-federal stakeholders, the White House should establish a Partner’s Council on Climate Resilience and Adaptation, chaired by the Chief Resilience Officer and including non-federal partners who are engaged in addressing climate resilience issues from different perspectives, including state, local, tribal and territorial government; non-profits; companies; and colleges, universities, and other research institutions. It is particularly important to formalize outreach to front-line communities that are bearing the brunt of climate impacts, particularly disadvantaged communities that may have limited institutional capacity to assess resilience needs and obtain federal support for resilience planning and execution.⁹
- To create a durable organizational mechanism that optimizes cross-agency coordination for resilience policy development and implementation, a permanent, centralized Resilience and Adaptation Center should be created in either a single operational agency such as FEMA, or through a specially-created governmental unit like the U.S. Access Board¹⁰ or the Federal Permitting Improvement Steering Council (FPISC) which would bring together high-level agency officials to facilitate the coordination of federal climate resilience activities.¹¹
 - a. The Resilience and Adaptation Center should be chaired by the Chief Resilience Officer and include key programmatic experts from federal agencies that have authority and funding to address resilience issues in their mission areas, creating

8 See Sen. Chris Coons et al., “National Climate Adaptation and Resilience Strategy Act of 2022,” fact sheet, last visited May 16, 2023, available at https://www.coons.senate.gov/imo/media/doc/one_pager_ncars_resilience_117.pdf.

9 Ibid.

10 U.S. Access Board, “About the U.S. Access Board,” last visited May 16, 2023, <https://www.access-board.gov/about/>.

11 Permitting Dashboard, “Federal Permitting Improvement Steering Council (FPISC) Agencies,” Aug. 28, 2019, <https://www.permits.performance.gov/about/federal-permitting-improvement-steering-council-fpisc-agencies>.

a new cadre of resilience experts who would work closely together to address multiple resilience needs associated with climate and other hazards, while drawing on multiple agency authorities and funding sources. Because multiple agencies' authorities and funding sources must form the foundation of an effective federal resilience strategy, it will be essential that high-level agency representatives from relevant agencies actively participate in the Resilience and Adaptation Center. The U.S. Access Board and FIPSC provide interesting models in that regard.

- b. The White House Office of Management and Budget should help coordinate and rationalize resilience spending by preparing an annual cross-cutting budget that identifies and tracks resilience spending across multiple departments and agencies, in consultation with the Chief Resilience Officer.

Conclusion

Communities need and deserve federal governmental help in become more resilient in the face of increasingly-severe climate impacts. The federal government should move aggressively to further institutionalize climate resilience planning and execution at the federal level and engage more actively with communities to understand and respond to climate risks that they face—particularly front-line and disadvantaged communities.

About the Author

David J. Hayes was Special Assistant to the President for Climate Policy for President Biden from January 20, 2021, until November 2022. Hayes is now a Lecturer in Law at Stanford Law School and a Senior Fellow at the Natural Resources Defense Council. In prior government service in the Clinton and Obama Administrations, Hayes served as the Deputy Secretary and Chief Operating Officer for the U.S. Department of the Interior.