Climate Change, Slow-Onset Disasters, and the Federal Emergency Management Agency

June 29, 2021

FEMA and Climate Change

The United States is already experiencing certain effects of climate change, including high temperature extremes and heavy precipitation events. The U.S. Global Change Research Program, among many other bodies, expects these trends to continue and intensify, likely resulting in more severe and frequent “slow-onset” events (e.g., drought; sea level rise), compound disasters (e.g., extreme rainfall combined with coastal flooding), and cascading events (e.g., landslides following wildfires). Such events may not have clearly defined start or end dates, and cumulative damage may not be immediately apparent.

Congress may consider how these events affect the Federal Emergency Management Agency (FEMA), which administers federal disaster relief authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act, P.L. 93-288, as amended). Although FEMA does not have an explicit mission to address climate change, the agency is increasing its activities related to nationwide adaptation to some of its effects, including extreme weather events. This Insight highlights issues FEMA may face when activating the Stafford Act for slow-onset events endemic to a changing climate. Slow-onset disasters are not mentioned or defined in the Stafford Act, FEMA’s regulations, or guidance, nor are they included in existing emergency or major disaster definitions.

Stafford Act Declarations

The Stafford Act authorizes the President to declare an incident an emergency or a major disaster. A Stafford Act declaration serves as a means to provide federal assistance to states, territories, and tribes for incident response, recovery, and mitigation. FEMA may authorize several forms of assistance pursuant to a Stafford Act declaration, including Individual Assistance (IA), Public Assistance (PA), and Hazard Mitigation Assistance (HMA).

Under the Stafford Act, governors or tribal chief executives may request an emergency or major disaster declaration when an incident is “of such severity and magnitude” that state, local, tribal, or territorial governments (SLTTs) are unable to effectively respond without federal assistance.
The Stafford Act defines a major disaster by listing incidents or situations that exemplify major disasters:

...any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this chapter to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby. 42 U.S.C. §5122(2)

Stafford Act declarations generally respond to rapid-onset events that cause a measurable amount of damage in a particular geographic area over a defined period of time. FEMA refers to the time interval during which the event occurs as the incident period. Per FEMA regulations, Stafford Act assistance shall only alleviate “the damage or hardship ... which took place during the incident period or was in anticipation of that incident.”

The Stafford Act and Slow-Onset Events

Current authorities may limit FEMA’s ability to provide assistance for slow-onset events like on-going inland high water levels, “sunny-day” flooding, sea level rise, erosion, and drought. Damages accrued during slow-onset events may not be easily attributed to a discrete incident or limited to a specific incident period. Further, an individual small event in a series (e.g., a single flood as part of recurring flooding), may not individually appear to overwhelm a state or locality, or meet damage thresholds to receive certain forms of Stafford Act assistance. However, some may argue that these incidents—taken together—warrant federal assistance that the Stafford Act is not currently designed to provide.

FEMA’s process for assessing losses may limit the availability of assistance for slow-onset events. The factors FEMA uses to evaluate whether to recommend the President authorize PA and/or IA for a major disaster (Figure 1) only consider the effects of the disaster-causing incident during the incident period. Further, some of these factors (e.g., insurance coverage or severe local impacts) may defy measurement for ongoing incidents.

Regulations also require declaration requests be submitted according to deadlines (e.g., major disaster declarations should be requested within 30 days of the incident). A governor or tribal chief executive may struggle to identify the appropriate time to request a Stafford Act declaration for a slow-onset incident.

Finally, the Stafford Act generally authorizes response and recovery assistance to redress losses attributed to a single event (e.g., repairs following a tornado). This approach may not comport with slow-onset, compound, or cascading incidents, where damages may not be easily attributable to a single event (e.g., when an area prone to regular sunny-day flooding is hit by a hurricane). Slow-onset events may also reduce SLTT capacity to withstand rapid-onset events; FEMA does not currently specify how such strain may be measured or remedied.

Considerations for Congress

Catastrophic events pose a financial threat both to society as a whole and to the federal government, as it allocates increasing resources to disaster relief. The Congressional Budget Office projects hazard-related losses, including those attributed to slow-onset events, will likely increase in the United States, especially as hazard-prone areas undergo rapid development and observe rising property values. Experts anticipate that resulting damages will mount, straining federal, state, and local governments, as well as businesses and individuals, particularly the socially vulnerable.
Given these issues, Congress could consider amending the Stafford Act to support disaster response, recovery, and mitigation associated with slow-onset, compound, or cascading disasters, such as:

- specifying FEMA’s roles and authorities in the federal response to climate change;
- amending the major disaster declaration definition to include slow-onset or other comparable terms;
- establishing a new type of declaration and corresponding disaster assistance authorities for slow-onset and ongoing incidents;
- requiring FEMA to develop a means to assign damage that is not limited to a discrete incident or incident period, or requiring FEMA to modify or extend the incident period under certain conditions;
- increasing funding for pre-disaster mitigation and introducing new approaches to mitigation funding to reduce risk before disasters occur;
- providing enhanced assistance for vulnerable communities already observing the effects of climate change; for example, reducing nonfederal cost shares, expediting and simplifying delivery of assistance, and providing technical assistance to bolster local capacity; and
- adding to FEMA’s authority to restrict rebuilding assistance in disaster-prone communities, provide pre-disaster mitigation assistance to reduce future losses to extreme weather events (including those projected under future conditions), and/or shift spending from response and recovery to mitigation.
Figure 1. Major Disaster Assistance Evaluation and Approval

How Is a Major Disaster Declared?

FEMA Factors to Assess Requests for Individual Assistance (IA)

- State/Territorial Governor’s Request
  1. State fiscal capacity and resource availability*
  2. Uninsured home and personal property losses*
  3. Disaster-impacted population profile
  4. Impact to community infrastructure
  5. Casualties
  6. Disaster-related unemployment
  *Indicates principal factor for determining the need for the Individuals and Households Program

Tribal Chief Executive’s Request
- Tribal government resources
- Voluntary agency and other assistance
- Availability of housing resources
- Uninsured home and personal property losses
- Disaster-impacted population profile
- Impact to community infrastructure
- Casualties
- Unique conditions that may affect tribal governments

FEMA Factors to Assess Requests for Public Assistance (PA)

- State/Territorial Governor’s Request
  1. Is the cost of PA-eligible work, less the cost of other assistance and insurance proceeds, at least $1 million?
  2. Does the per-capita cost of assistance across state/territory and county exceed annually adjusted thresholds?
  3. FEMA also considers:
     - Severe local impacts
     - Recent multiple disasters
     - Evaluation of previous mitigation efforts
     - Other federal agencies that may provide assistance

Tribal Chief Executive’s Request
- Has the tribal government sustained at least $250,000 in damages or costs eligible for PA?
- FEMA also assesses the impacts of a disaster, including:
  - Types and cost of damaged facilities
  - Economic impact of the incident
  - Tribal Government resources
  - Demographics
  - 24-month disaster history
  - Evaluation of previous mitigation efforts
  - Other federal agencies that may provide assistance
  - Unique conditions that affect tribal governments

Author Information

Diane P. Horn
Analyst in Flood Insurance and Emergency Management

Elizabeth M. Webster
Analyst in Emergency Management and Disaster Recovery

Erica A. Lee
Analyst in Emergency Management and Disaster Recovery

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS’s institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.