

Climate Adaptation Planning: Executive Summary

This resource highlights key concepts from FEMA’s [Climate Adaptation Planning: Guidance for Emergency Managers](https://www.fema.gov/plan). For the full document, please visit: <https://www.fema.gov/plan>.

Introduction

Communities across the nation are experiencing changes in the natural hazards they face. The evolving hazard landscape means emergency managers need to plan differently when assessing disaster risk and community resilience. Communities should examine the changing environment, understand how future hazards could unfold, and factor that information into their planning efforts to become more resilient.

Climate adaptation and hazard mitigation share a common goal of minimizing impacts from natural hazards. These hazards are expected to increase in frequency and intensity due to climate change (see Figure 1). Climate adaptation focuses on adjusting to future conditions and building resilience to withstand those changes. As the future climate is variable and may present new challenges, climate adaptation uses multiple scenarios to help plan for uncertainty. Adaptation is also a process that continues over time, responding to new information and climate conditions.

Climate Impacts in the United States

Changing weather patterns are increasing the severity, frequency, and impact of disasters. While the frequency and severity of disasters over the coming century will continue to increase, such changes are already being felt. Today, billion-dollar disasters occur approximately four times as often as in the 1980s.¹ The physical, economic, and social impacts from these disasters are not distributed evenly.

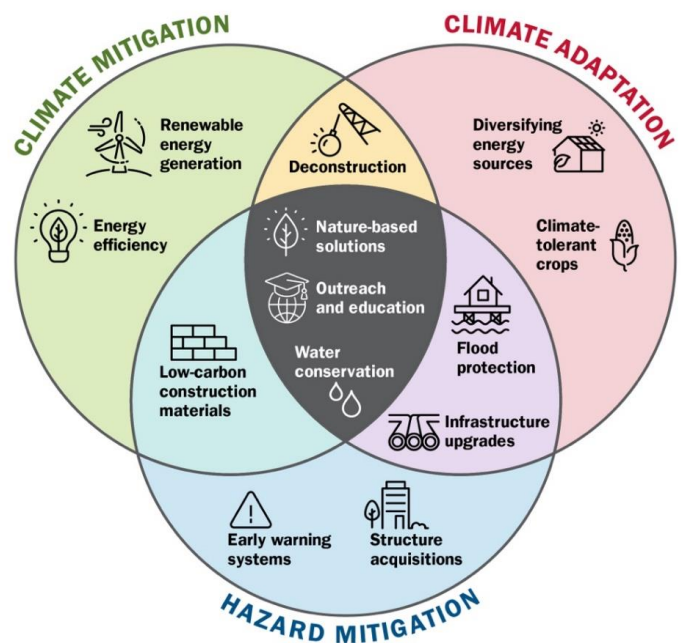


Figure 1: Overlaps between Climate Mitigation, Hazard Mitigation, and Climate Adaptation

¹ NOAA: National Centers for Environmental Information. *U.S. Billion-Dollar Weather and Climate Disasters*. (2024). <https://www.ncei.noaa.gov/access/billions/>.



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Climate and Equity: Keeping Equity at the Center of Climate Adaptation Planning

Those with the fewest resources to cope with climate change are often the most vulnerable to its impacts. Keeping equity at the center of climate adaptation planning is key to ensuring the entire community – not just a small subset – has access to the resources needed to adapt to climate change. Importantly, it also means ensuring underserved communities can meaningfully participate in decision-making, planning, and implementation of adaptation strategies.

Some common hazards that are impacted by climate change include droughts, extreme heat, coastal flooding, inland flooding, hurricanes, and wildfires. Extreme weather events, together with other natural and human-made health stressors, also influence human health in numerous ways (see Figure 2). Some existing health threats such as asthma, lyme disease, and malaria will intensify. Climate threats may lead to other biological-, health-, technological-, or economic threats, such as new risks for agricultural or natural resource-dependent industries.

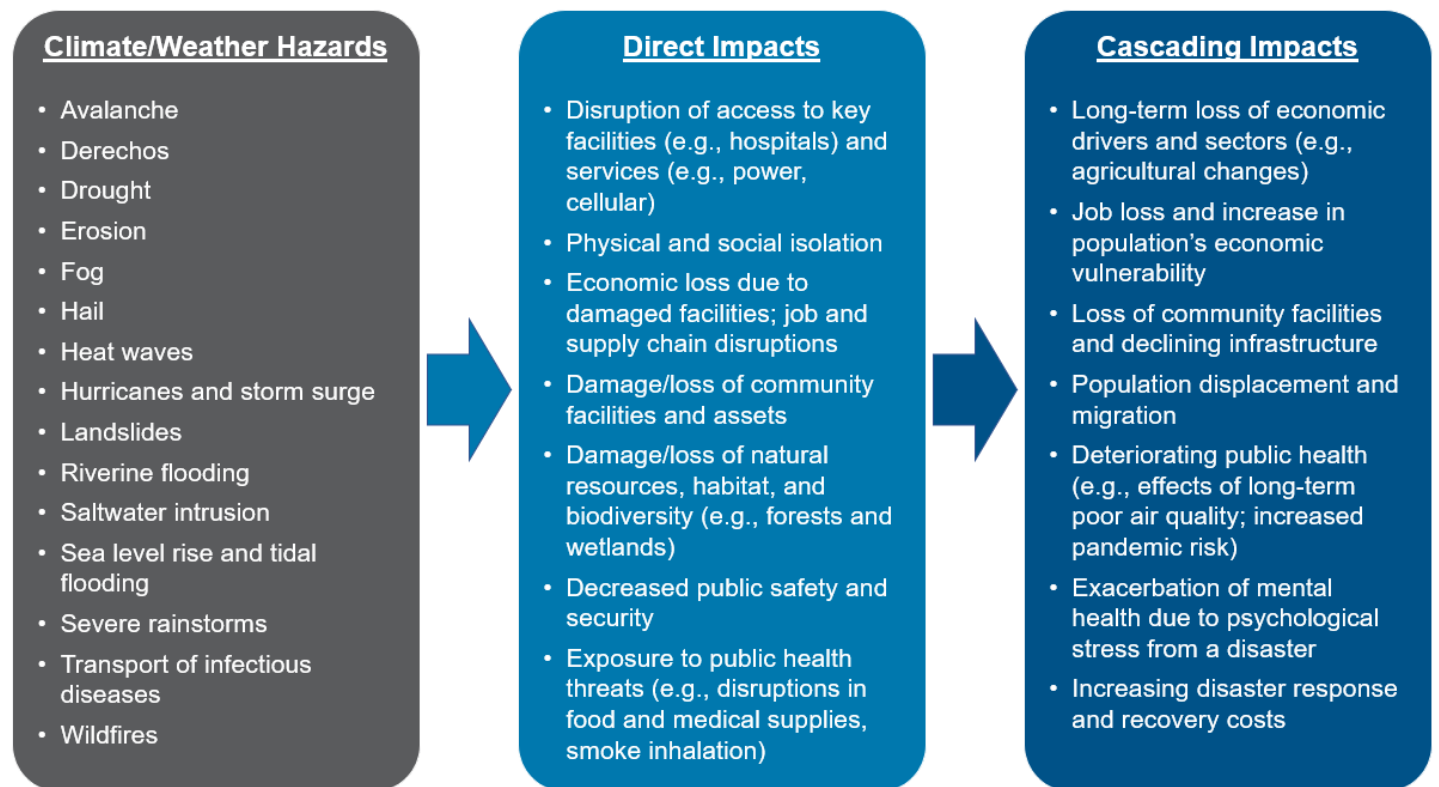


Figure 2: Climate Hazards and Their Direct and Cascading Impacts

Communicating Climate Change

Communicating the degree of uncertainty associated with climate hazards and scenarios is a key activity for emergency managers. Public outreach can help community members understand that certain hazards may become more frequent and severe. Public meetings may allow for two-way dialogues as well as discussions of potential adaptations that can lead to long-term community resilience and sustainability.



Best Practices for Communicating Climate Change to Diverse Audiences

- Use terms that resonate with the target audience and find common ground. “Future risk” and “future conditions” may be good alternative terms to “climate change.”
- Leverage the [power of story](#).² Stories can make climate change more relatable. Be sure to convey opportunities and a positive outlook.
- Collaborate with partners who the audience trusts and can carry the message for you.

Climate Adaptation Planning

Climate adaptation requires planners to think in terms of decades rather than months or years. Climate adaptation planning should incorporate the following principles:



Focus on the Future: Climate resilience involves planning periods of decades or longer and should factor in how changing climate conditions might interact with other aspects of a community.



Link to Community Planning Processes: Integrate with established planning efforts so that existing services, infrastructure, and capabilities are adapted to withstand future climate-related challenges.



Leverage Partnerships and Relationships: Provide opportunities for public and stakeholder engagement and ensure community members are aware of the threats posed by a changing climate.



Use a Multidisciplinary Approach: Integrate social, economic, and environmental considerations to promote solutions that are socially acceptable, viable, equitable, sustainable, and increase resilience.

Climate adaptation planning is most effective when it incorporates natural science-, social science-, and engineering-based strategies, such as [nature-based solutions](#).³ Climate adaptation often has short- and long-term benefits beyond enhancing community resilience, such as economic development and public health benefits.

Linking to Hazard Mitigation Planning

Emergency managers should incorporate future climate conditions into existing risk analysis and planning activities. [Updated hazard mitigation planning policies](#) require state and local hazard mitigation plans to address climate risks.

Climate adaptation can take advantage of relevant existing mitigation plans and activities, and help secure funds for projects that achieve both hazard mitigation and climate adaptation goals. Before disasters, FEMA programs, such as [Building Resilient Infrastructure and Communities](#) (BRIC), provide resources so communities are better prepared

² Climate stories NC. Click on individual stories at: <https://www.youtube.com/@climatestoriesnc6891/videos>.

³ For more information on Building Community Resilience with Nature-Based Solutions, see https://www.fema.gov/sites/default/files/documents/fema_nature-based-solutions-guide-2-strategies-success_2023.pdf.

for extreme weather events.⁴ After disasters, emergency managers can help build back with greater climate resilience by drawing upon programs such as FEMA’s [Hazard Mitigation Grant Program](#) (HMGP).⁵

For a larger list of federal, state, local, private, and philanthropic funding sources, see [Appendix C in the guide](#).

The Six-Step Planning Process

Traditional emergency planning and climate adaptation planning share many similarities; however, there are a few differences:

- Climate adaptation planning has a higher degree of uncertainty and should consider multiple future climate scenarios.
- Climate adaptation planning is an iterative process.
- Climate adaptation planning should be a key part of all community planning.

This guide aligns the climate adaptation planning actions included in the [U.S. Climate Resilience Toolkit’s](#)⁶ Steps to Resilience (see Figure 3) to the six-step planning process outlined in FEMA’s [Comprehensive Preparedness Guide \(CPG\) 101](#)⁷ (see Figure 4), providing the tools to integrate adaptation planning into hazard mitigation and emergency management.

For a more in-depth explanation of the six-step planning process and case studies applied to climate adaptation planning, please go to Section 4 of the [Climate Adaptation Planning Guide](#).



Figure 3: U.S. Climate Resilience Toolkit’s Steps to Resilience



Figure 4: The Six-Step Planning Process

⁴ For more information on BRIC, see <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>.

⁵ For more information on FEMA’s HMGP, see <https://www.fema.gov/grants/mitigation/hazard-mitigation>.

⁶ NOAA. *U.S. Climate Resilience Toolkit*. (2014). <http://toolkit.climate.gov>.

⁷ FEMA. *Comprehensive Preparedness Guide 101: Developing and Maintaining Emergency Operations Plans, Version 3.0*. (2021). https://www.fema.gov/sites/default/files/documents/fema_cpg-101-v3-developing-maintaining-eops.pdf.