



Key Message 21.1

Chronic Impacts of Extreme Weather Are Shaping Adaptation and Mitigation Efforts

The Northeast continues to be confronted with extreme weather, most notably extreme precipitation—which has caused problematic flooding across the region—and heatwaves (*very likely, high confidence*). In response, climate adaptation and mitigation efforts, including nature-based solutions, have increased across the region (*high confidence*), with a focus on emissions reductions, carbon sequestration, and resilience building (*medium confidence*).

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Key Message 21.2

Ocean and Coastal Impacts Are Driving Adaptation to Climate Change

The ocean and coastal habitats in the Northeast are experiencing changes that are unprecedented in recorded history, including ocean warming, marine heatwaves, sea level rise, and ocean acidification (*high confidence*). Changing ocean conditions are causing significant shifts in the distribution, productivity, and seasonal timing of life-cycle events of living marine resources in the Northeast (*high confidence*). These impacts have spurred adaptation efforts such as coastal wetland restoration and changes in fishing behavior (*high confidence*).

Key Message 21.3

Disproportionate Impacts Highlight the Importance of Equitable Policy Choices

Extreme heat, storms, flooding, and other climate-related hazards are causing disproportionate impacts among certain communities in the Northeast, notably including racial and ethnic minorities, people of lower socioeconomic status, and older adults (*very likely, very high confidence*). These communities tend to have less access to healthcare, social services, and financial resources and to face higher burdens related to environmental pollution and preexisting health conditions (*very likely, high confidence*). Social equity objectives are prominent in many local-level adaptation initiatives, but the amount of progress toward equitable outcomes remains uneven (*very likely, high confidence*).



Key Message 21.4

Climate Action Plans Are Now Being Implemented

In recent years, there have been substantial advances in the magnitude and scope of climate action across all jurisdictional scales (*high confidence*). Almost every state in the region has conducted or updated a climate impact assessment, developed a comprehensive climate action plan, and enacted climate-related laws since 2018 (*high confidence*). Innovative approaches to transparent, inclusive, and equitable processes around climate action are being embraced by Tribes, municipalities, and states (*high confidence*). Although ambitious emissions reduction targets have been put forward, meeting these goals is expected to be challenging (*medium confidence*).

Key Message 21.5

Implementation of Climate Plans Depends on Adequate Financing

Options for financing mitigation and adaptation efforts have expanded in recent years, providing households, communities, and businesses with more options for responding to climate change (*high confidence*). Flood insurance allows individuals and communities to recover following extreme flooding events, but many at-risk homeowners lack adequate coverage (*high confidence*). Although the public sector remains the primary source of funding for adaptation, private capital has started to invest in a variety of mitigation and adaptation projects, including services for monitoring climate risks and community-based catastrophe insurance (*high confidence*).



Projected Changes in Coastal Forests

Rising sea levels kill trees and transform coastal forests into marshes, damaging vital ecosystems and the services they provide to the community.

Figure 21.7. As sea level rises, the water table also rises; the vadose zone (which is between the ground surface and the groundwater table) becomes thinner, bringing the water table closer to the surface; and tidal flooding and storm surges reach farther inland, resulting in forest dieback and conversion of forested wetlands to standing-water wetlands. Over time, these changes result in permanent habitat shifts. Adapted from Sacatelli et al. 2020 (see full chapter for detailed citation).



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