



Northern Forests Climate Hub

NIACS coordinates the USDA Northern Forests Climate Hub. The Climate Change Response Framework is a core forest adaptation component of both the Midwest and Northeast Regional Climate Hubs.

Scan to learn more

Visit the Northern Forests Hub today!

CLIMATE CHANGE RESPONSE FRAMEWORK

Science-based Forest Management in an Era of Climate Change



NIACS is a multi-institutional organization led by the USDA Forest Service.

About the framework

Launched 2009, the NIACS Climate Change Response Framework is a collaborative, cross-boundary approach among scientists, managers, and landowners to incorporate climate change considerations into natural resource management.

www.forestadaptation.org

Framework components

Partnerships

Climate change is a cross-boundary issue because all lands will be affected in some way. Collaborative partnerships are the foundation for all activities.

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100+ partners

Vulnerability Assessments

High-quality information about future changes in climate and the potential effects on forest ecosystems to identify the forest communities at greatest risk.

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6 Regional vulnerability assessments published

Adaptation Resources

A planning tool, a suite of information, ideas, and tools help managers integrate climate change information into land management planning and decision making.

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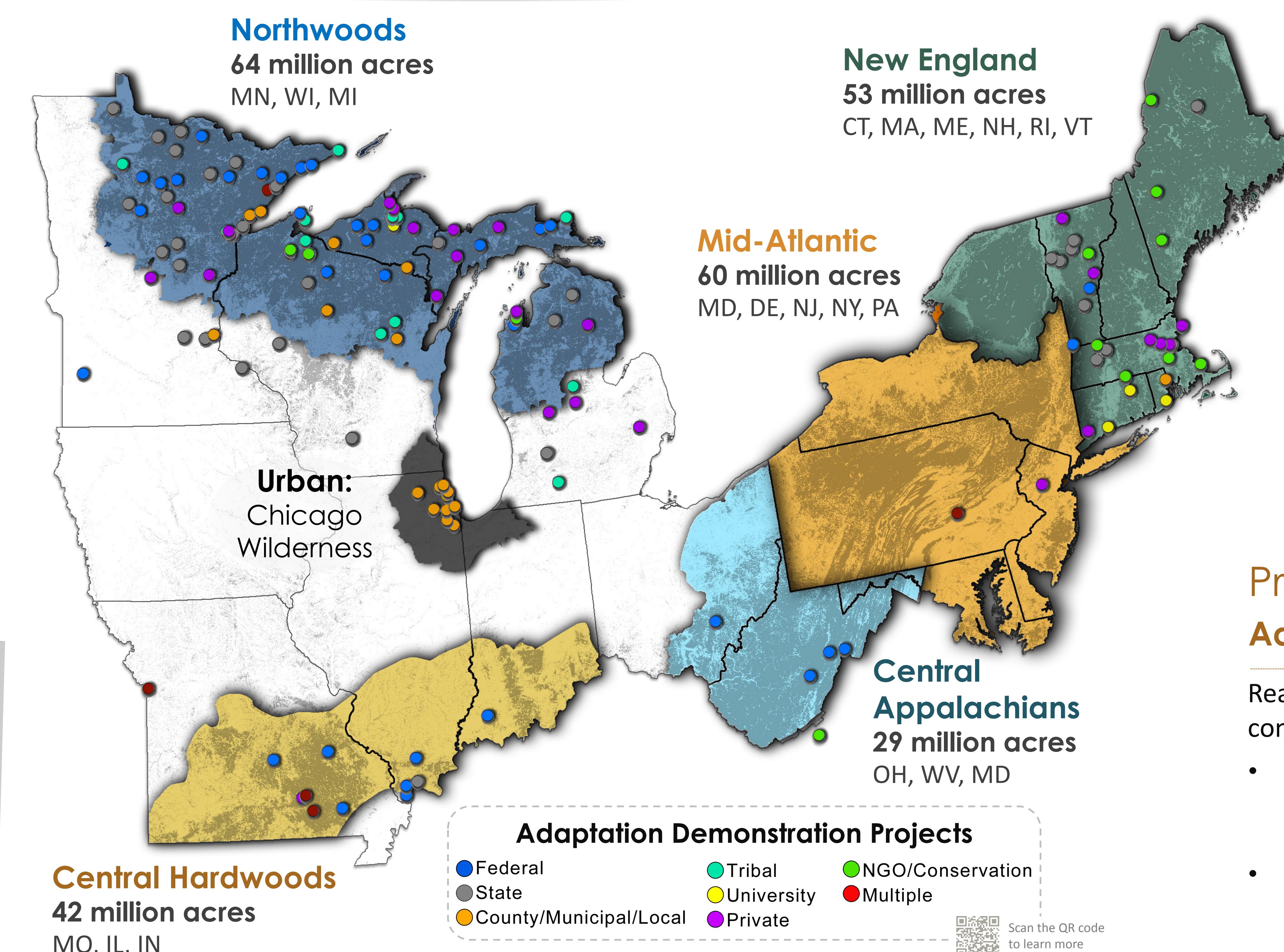
Currently being revised for the Eastern US

Adaptation Demonstrations

Demonstration projects test new ideas and actions, grow partnerships, and provide real-world examples of climate change adaptation in forest ecosystems.

Scan to learn more

150+ projects underway

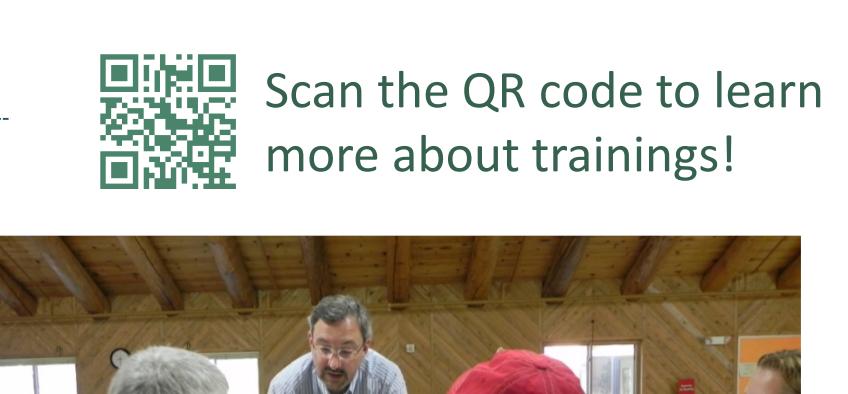


Trainings: Forest Adaptation Planning and Practices

The training provides advanced instruction on forest adaptation concepts and practices in order to develop new adaptation demonstrations. Active, hands-on training helps natural resource managers to:

- Describe regional and local climate change effects on forests
- Work with adaptation concepts in the context of sustainable management
- Incorporate climate change considerations and adaptation actions into real-world forest management projects

Post-training technical support for new adaptation projects is provided by NIACS.



Scan the QR code to learn more about trainings!



Photos from Menominee, WI Forest Adaptation Planning and Practices event



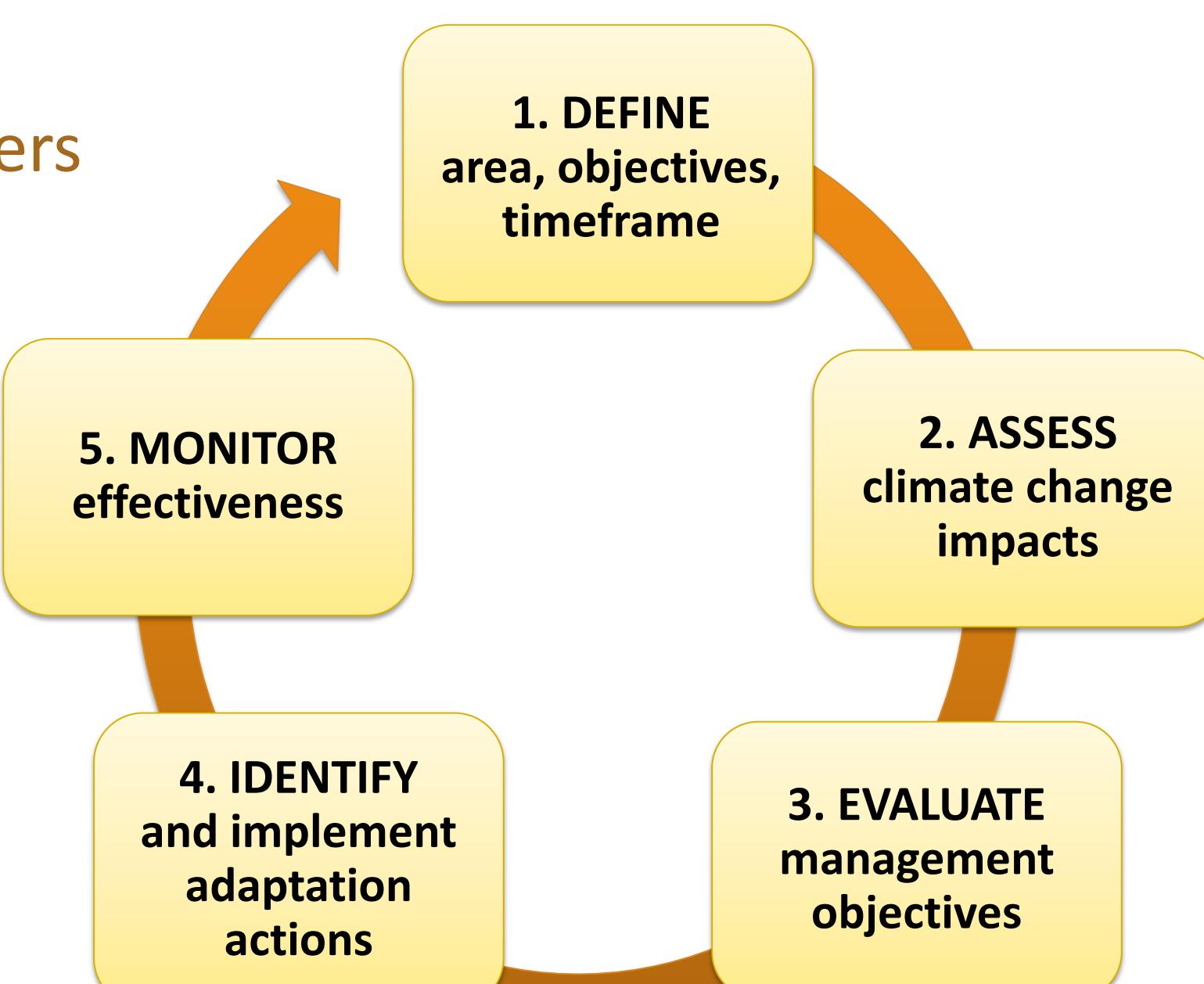
Planning tool: FOREST ADAPTATION RESOURCES

Climate Change Tools and Approaches for Land Managers

Structured decision-making tool a decision-support tool for incorporating adaptation considerations into current management objectives.

Source: Swanson and Janowiak (2012) www.nrs.fs.fed.us/pubs/40543

Scan the QR code with Mobile Device to access the Forest Adaptation Resources Document (USFS)



Projects: Adaptation Demonstration Projects

Real-world examples of how managers have integrated climate considerations into forest management. Projects are:

- Flexible, using the management goals and objectives identified by the land manager
- Customizable, identifying specific adaptation actions to meet objectives
- Educational, fostering discussions and shared learning among forest stakeholders
- Collaborative, sharing ideas and resources among multiple land management agencies

Scan the QR code to check out our Demos for yourself!

Go to this project page now! Scan the QR code



Photos: White Oak (H. Mdres), Oak-hickory forest

Example Demonstration Project

Partner: Gracie & Harrigan Consulting Foresters, Inc.

Location: Northern New Jersey

Site: 1,000 acres of privately owned mid-successional oak forest with some northern hardwoods; currently low oak regeneration

Management goals:

- Enhance wildlife habitat;
- Improve quality, health, and vigor of the forest

Management objectives and timeframe:

over the next 15 years

- Increase species and structural diversity;
- Retain hard mast sources on the landscape

Future Impacts: Warmer temperatures, drought, drier soils may cause regeneration failure of northern hardwoods

Opportunities: Oak regeneration may take advantage of warmer temperatures and drier soils

Adaptation Actions Identified:

- Simulate low-intensity fire regime (mechanical) to stimulate oak regeneration and reduce other hardwoods
- Spray for gypsy moth to prevent subsequent defoliations and improve ability of forests to resist pests and pathogens

Monitor: (1) Number of acres with regeneration; (2) Number of gypsy moth egg casings; (3) Establishment of post-harvest invasive species