

Comparative Risk Assessment Framework and Tools (CRAFT)

Comparative Risk Assessment Framework and Tools (CRAFT)

Forest management faces many obstacles, but none more challenging than an uncertain future. What new disease or invasive species will appear next? How will the climate change and what impacts will follow? Forests are naturally complex, and in recent decades, they have become even harder to manage because of these (and other) uncertain, emerging threats. Increasing—and potentially competing—demands on forests for clean air and water, wildlife habitat, forest products, and recreation add further challenges to management.



Forests are managed to provide essential goods and services, but often face competing demands and interacting threats.

To help address this challenge, the USDA Forest Service **Eastern Forest Environmental Threat Assessment Center** and partners from the University of North Carolina Asheville's National Environmental Modeling and Analysis Center (UNC Asheville's NEMAC) designed a planning framework, called Comparative Risk Assessment Framework and Tools (CRAFT). Forest managers and stakeholders can use CRAFT to help reach agreement on the most prudent path to follow in the face of uncertainty.

CRAFT provides a series of solutions for complex decision making.

CRAFT assists users in examining the values placed on forests and how these values are likely to be affected by the interactions of management decisions and future uncertainties. The CRAFT process includes—

- A simplified procedure for identifying and clarifying objectives;
- A way to identify a feasible set of alternatives;
- An ability to match real-life problems to existing models and tools; and
- A method of calculating the risks and tradeoffs associated with different management scenarios.



CRAFT can guide teams through complex decision making.

CRAFT can bring diverse groups of people and ideas together.

CRAFT is designed for a team decision making environment that allows forest managers, concerned stakeholders, groups, and individuals to be included in the decision making process from the beginning. CRAFT enables people with a variety of needs and interests to reach agreement while ensuring transparency in decision making.

Designed with planning teams in mind, CRAFT follows the requirements of the National Environmental Policy Act (NEPA); however, aspects of the CRAFT method can be widely adopted by other audiences.

CRAFT provides a suite of resources to help guide the decision making process.

CRAFT’s unique toolset includes—

Project Portal

A password protected website hosts all the tools a team needs to complete the CRAFT process. The portal also offers storage for documents and graphics, an action item application to keep team members on task, a team list for tracking contact information, and a calendar of team events and deadlines.

CRAFT Wizard

Users can work together through a step-by-step process for researching and gathering information needed to inform the decision at hand. The Wizard records each step to produce a printer-friendly document that can be saved in the Project Portal for future reference.

Geographic Information Systems (GIS) Viewer

A web-based mapping tool allows teams to share and view maps from any computer.

CRAFTiPedia

A “wiki”-style tool allows CRAFT users to search terms, definitions, case studies, and other resources that may be helpful during the CRAFT process.

Learning Modules

An interactive web tutorial illustrates the CRAFT process and allows users to explore key CRAFT concepts at their own pace.



CRAFT can support individual projects as well as broader efforts.

CRAFT can guide teams working at many scales.

Staff members from the Eastern Threat Center and UNC Asheville’s NEMAC have used CRAFT to assist teams tasked with making complex decisions at multiple geographic and planning scales. CRAFT methods can support decision making for individual projects as well as broader efforts at state, regional, and national levels.



With CRAFT, users can examine forest values and potential impacts of management decisions and future uncertainties.

For example, Eastern Threat Center and UNC Asheville’s NEMAC staff members have used CRAFT to support development of the National Cohesive Wildland Fire Management Strategy. As part of this effort, Eastern Threat Center researchers led a science and analysis team that collaborated with regional and national teams of stakeholders and managers. They used the CRAFT process to identify key values at risk and opportunities or options for reducing that risk. The science team also used conceptual models and data developed following CRAFT principles to explore various combinations of options and locations to help define national priorities. This national analysis provided important information that is being used to guide future management and wildland fire investments and reduce human and ecological losses from wildfires.



Stakeholders and managers have used CRAFT to consider alternative courses of action in wildland fire management.

CRAFT training and assistance are available.

To request demonstrations and training, contact **Steve Norman** (Eastern Threat Center research ecologist) at stevenorman@fs.fed.us or **Karin Rogers** (UNC Asheville’s NEMAC Project Manager) at kr Rogers@unca.edu.

For more information:

Visit <http://www.craft.forestthreats.org> to learn more and begin exploring CRAFT.

Contact Us:

**USDA Forest Service
Eastern Forest
Environmental Threat
Assessment Center**

**Danny C. Lee, PhD
Director**

Asheville, NC

Southern Research Station
200 W.T. Weaver Boulevard
Asheville, NC 28804
(828) 257-4298

Research Triangle Park, NC

Forestry Sciences Laboratory
3041 E. Cornwallis Road
Research Triangle Park, NC 27709
(919) 549-4000

Raleigh, NC

North Carolina State University
Centennial Campus
920 Main Campus Drive
Venture Center II, Suite 300
Raleigh, NC 27606
(919) 515-9489

Website:

www.forestthreats.org

All photos by USDA Forest Service.



Scan to learn more about CRAFT.

USDA is an equal opportunity provider and employer.