

**T**here is an ever-increasing volume of useful scientific knowledge about climate change and forest ecosystems. However, the quantity of existing information and rate of development of new information make it difficult to efficiently consume and apply. The Template for Assessing Climate Change Impacts and Management Options (TACCIMO) is a web-based tool developed by the USDA Forest Service to assist federal, state, and private land managers and planners with evaluation of climate change science implications for sustainable natural resource management. TACCIMO provides users with an interactive resource that efficiently delivers climate change science needed to assess, manage, and monitor forest resources under a changing climate.

**TACCIMO's public-facing website includes:**

- ◆ A searchable repository of climate change effects and management options derived from peer reviewed literature accessible through a custom web application
- ◆ A geospatial mapping application that provides national extent downscaled climate data and other models relevant to evaluating climate change impacts on forests
- ◆ Report generators that assist users in capturing outputs specific to a given location and resource area in a consistent and organized manner
- ◆ For US Forest Service users, science findings can be readily linked with management language in national forest land and resource management plans



To learn more and begin exploring TACCIMO, visit:

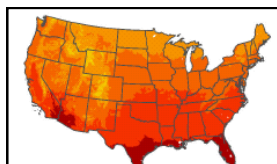
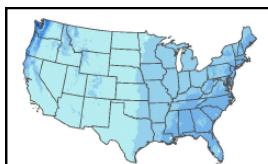
[www.forestthreats.org/taccimotool](http://www.forestthreats.org/taccimotool)

**TACCIMO's flexible framework allows new information to be added routinely and existing information to be reorganized. Automated features add value to the information by combining relevant content within science literature and between science and planning. In addition, spatial data help users ask informed questions and quickly derive results specific to their location.**

**Identifying Problems and Connecting Solutions:** A major challenge in applying science to support planning and management decisions is the need to readily connect effects of climate change with appropriate management options. These key pieces of information are not always addressed together in scientific literature. TACCIMO addresses this problem by systematically associating effects of climate change and management options from different sources into a single reference document based on simple methods and criteria.

**Establishing the Range of Future Climate:** For the purposes of planning and forest management, it is important to know the likely range of projected future climate. However, it is time consuming and difficult to navigate the many projections at different temporal and geographic points. TACCIMO simplifies this process by identifying a set of projections that mark the bounds of future climate specific to a location. Furthermore, TACCIMO places location-specific trends in the context of regional and national trends to better provide perspective on climate change across scales.

**Linking Science with Planning:** Over the last several decades, the US Forest Service has developed a wealth of forest management information in the form of forest plans. These plans include desired conditions as well as more specific objectives and design criteria to guide the forest toward sustainability. Similarly, the scientific understanding of climate change is a maturing discipline that is working to address forest management information needs. TACCIMO facilitates this connection by directly linking scientific and land management planning knowledge.



## TACCIMO provides access to climate change science through explore and reporting functions:

The **Explore** function enables easy and intuitive user orientation and self-education.

- ◆ The **Literature Explorer** enables review and keyword filtering of effects of climate change and management options from scientific literature by subject and geographic region.
- ◆ The **Forest Plan Explorer** enables review and keyword filtering of forest plan components.
- ◆ The **GIS Viewer** enables review of climate data, including interactive tools and relevant context layers.

The **Generate a Report** function enables the capturing of inputs for additional review through structured report generation.

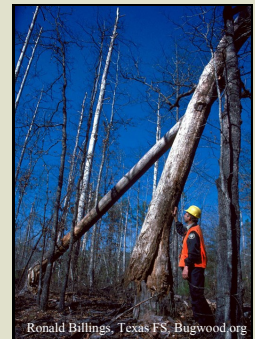
- ◆ The **Literature Report** builds a custom report of highlighted effects of climate change and management options from scientific literature based on user defined selections.
- ◆ The **Literature and Planning Report** adds relevant plan components to highlighted literature.
- ◆ The **Planning Report** allows for report generation from forest plan content independent of science content selections.
- ◆ The **Climate Report** produces a snapshot of the range of projected future temperature and precipitation at national, regional, state, county, and national forest extents.

### Applications:

**US Forest Service Land and Management Plan revisions:** TACCIMO helps forest planners identify direct and indirect impacts of climate change, appropriate management options, and how new management directions could change from current Forest Service planning language. TACCIMO was used to address climate change in the George Washington National Forest Plan and is currently used by planning offices in US Forest Service Southern (R8) and Pacific Southwest (R5) Regions.

**Project-level NEPA analysis:** TACCIMO helps project-level managers and coordinators engaged in the National Environmental Policy Act (NEPA) process to address the effects of climate change on a proposed project and formulate management alternatives. TACCIMO may also be used to address public comments regarding climate change by providing examples from peer reviewed sources.

**Everyday use:** TACCIMO provides a wealth of information that can be used for self-education of climate change issues. TACCIMO provides a literature review and climate modeling resource for forest managers, landowners, students, teachers, researchers, and anyone who is interested in surveying the current body of climate change knowledge for forest ecosystems. Scientists may look at TACCIMO to determine gaps in climate change science and guide future research direction.



### TACCIMO includes resources for training and assistance:

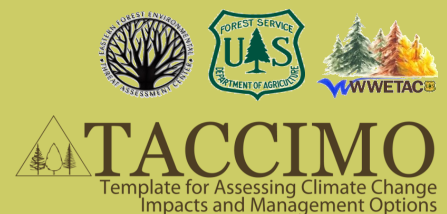
In addition to a detailed user guide, TACCIMO provides video and text assistance to users in all areas of the website. Quick-link buttons at the top of each page provide access to a series of step-by-step help files, how-to videos, feedback forms, and a general site disclaimer. These resources allow users to come to TACCIMO without any prior knowledge of the tool and produce the results needed to quickly and effectively address impacts of a changing climate on forest resources.



**“Yes it's a timesaver. It generated a 30 page report in about 30 seconds. That would have taken an ID team a year to gather and produce. TACCIMO looks like a huge time and money saver.” - Anonymous comment from Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis**

### For More Information, Contact the TACCIMO team:

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