

US Forest Service releases findings on the effects of drought for forests and rangelands

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The U.S. Forest Service today released a new report, *Effects of Drought on Forests and Rangelands in the United States: A Comprehensive Science Synthesis*, that provides a national assessment of peer-reviewed scientific research on the impacts of drought on U.S. forests and rangelands. This report will help the Forest Service better manage forests and grasslands impacted by climate change.

"Our forests and rangelands are national treasures, and because they are threatened, we are threatened," said Agriculture Secretary Tom Vilsack. "This report confirms what we are seeing, that every region of the country is impacted by the direct and indirect effects of [drought conditions](#) and volatile weather patterns. Sixty million Americans rely on drinking water that originates on our 193 million acres of national [forest](#) and grasslands. They support 200,000 jobs and contribute over \$13 billion to local economies every year."

The report establishes a comprehensive baseline of available data that land managers can use to test how well their efforts to improve drought resilience and adaptation practices are working nationwide. Major findings from the report include:

- Drought projections suggest that some regions of the U.S. will become drier and that most will have more extreme variations in precipitation.
- Even if current drought patterns remained unchanged, warmer temperatures will amplify drought effects.

- Drought and warmer temperatures may increase risks of large-scale insect outbreaks and larger wildfires, especially in the western U.S.
- Drought and warmer temperature may accelerate tree and shrub death, changing habitats and ecosystems in favor of drought-tolerant species.
- Forest-based products and values - such as timber, water, habitat and recreation opportunities - may be negatively impacted.
- Forest and rangeland managers can mitigate some of these impacts and build resiliency in forests through appropriate management actions.

"Since 2000, fire seasons have grown longer and the frequency, size and severity of wildland fires have increased," said Vilsack. "Among the many benefits of having this solid baseline data is the improved ability to identify where restoration work can help forests adapt and prosper while minimizing the threat and impact of future wildfires."

The assessment, a broad review of existing drought research, provides input to the reauthorized National Integrated Drought Information System (NIDIS), established by Congress in 2006, and the National Climate Assessment (NCA), produced every four years to project major trends and evaluate the effects of global climate change on forests, agriculture, rangelands, land and water resources, human health and welfare, and biological diversity. Together these serve as key, science-based, resources for anyone working to maintain or improve public and private lands in the face of a changing environment.

Edited by Forest Service scientists in partnership with Duke University, the document provides a valuable new tool to inform discussion, planning and implementation of adaptation strategies for land managers and policy makers. The collaborative effort, authored by 77 scientists from the Forest Service, other Federal agencies, research institutions and

universities across the United States, examines ways to understand and mitigate the effects of drought on forests and rangeland including the 193 million acres of National Forest System lands.

The implications of the findings of this report are likely to have far-reaching effects on the environment for the foreseeable future. As [climate change](#) drives temperatures increases and precipitation patterns change, [drought](#)-and associated disturbances such as insect outbreaks and wildfires-will only get worse across many areas of the United States.

The full text of the report is available at <http://www.fs.fed.us/science-technology/climate-change/drought-forests-and-rangelands>

Provided by USDA Forest Service

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