

Engaging a Climate Ready Agency

From Dave Cleaves, Forest Service Climate Change Advisor



JUNE 4, 2010

Welcome to the first edition of Engaging a Climate Ready Agency, an update brought to you by the Climate Change Advisor's office. Dave Cleaves was recently named by the Chief as the Forest Service's lead executive on climate change. In this role, Dave will lead agency efforts to manage forests and watersheds in the face of climate change, represent the agency in climate change matters with our partners, and coordinate climate change activities and communication within the agency.

MESSAGE FROM DAVE

This update

The purpose of this update is to help us keep our eyes on the prize of healthy, functioning systems – ecological, social, and economic – as the climate around them changes. All over the Forest Service, people are trying new things to prepare for a changing climate and learning as they do. We need to exchange those lessons learned and use them to adjust our land management and scientific assumptions and practices. As we get our climate-legs under us, we will learn to balance today's demands with preparing for future needs. That means efficiently recognizing and fully exchanging the feedback from our successes and failures and pulling in the lessons of other organizations to consider for our own dynamic strategies.

We will be unfolding a forward-looking, active national effort to bring climate change knowledge into our organizational expectations and actions. We will try to enhance the connection between the field, the Deputy Areas, and the Chief's office on climate change and landscape-scale conservation issues. We think that learning by "wait-and-see" is just not the Forest Service style. We will be learning by doing and learning from each other as we work to connect the strong fibers of this vast organization.

Becoming a Climate Ready Conservation Agency

The National Academy of Sciences last week released a set of three new reports on advancing the science, adapting to the impacts, and limiting the magnitude of climate change. These peer-reviewed reports reconfirmed that there is a strong, credible body of evidence documenting climate change, its correlation to greenhouse gas emissions from fossil fuel use, and its association with impacts. Many of these will affect forests and grasslands including increases in intense rainfall, decreases in snow cover, more intense and frequent heat waves and drought, increases in wildfires, and longer growing seasons. Many impacts of a changing climate are already showing up. Projections anticipate an additional warming of 2 to 11.5 degrees F over the next century, on top of the 1.4 degrees F already observed over the past 100 years.

Climate change and its implications for forests may be the biggest environmental challenge the Forest Service has ever faced. Are we ready?

The projected changes may seem to be out in a distant future, but they are really not that far off. Some of us have been in a land management career for almost half of that. The newest employees in the Forest Service will experience the extreme changes for much, if not all, of their careers. What will we in today's Forest Service leave them to work with? Can we respond to the changes that are already occurring and set things up to deal with the more rapid pace of change expected in the latter part of this century? Can we build resilience with what we do today and leave options for the next generation of users and forest managers?

I think that we can and we must. We have a lot going for us: land management, science, and landowner services under one roof; a range of legal authorities for a spectrum of interventions in the name of forest ecosystems; intimate knowledge of the land through experience and science-based resource assessments; strong partnerships with other agencies, NGO's, and communities; and an esprit de corps that, despite rocky periods, has been the envy of many government agencies.

We are the long-view people. The legacy of our decisions will be played out in the forests and grasslands of tomorrow. That legacy builds on what we are doing now, but it builds in the new science, the managerial and technical innovations, and the lessons that we will develop on what will probably be a winding and, at times, confusing pathway through the next several decades.

Be assured that much of what we are already doing is necessary in preparing for a changing climate, like keeping forest land in forests through open space preservation or reducing the regeneration backlogs. Our carbon scientists tell us that one of the most important and cost effective things we can do is to get new trees or grass reestablished quickly and back on line sequestering carbon. Through sustainable operations efforts, we have set concrete goals for reducing our energy and water use and are working to address consumption (green purchasing), recycling, and other "footprint" areas.

But what else do we do now, day-to-day, on the ground? Many of us have trouble translating from thick government reports, projections, and ominous warnings into what we should be doing in our jobs. We must first begin to think about how we do our jobs, how to build in climate change, rather than create a separate "to-do" list. We have to build the notion of change into our thinking. That shouldn't be too hard. We are accustomed to long time periods between our decisions and their outcomes with plenty of uncertainties in the interim. But we are not paralyzed by uncertainty. Planting a tree is in itself an act of both calculation and faith.

It shouldn't be too much of a stretch to imagine hotter, wetter, drier, or more volatile conditions as we think through the consequences of our choices. Try it by taking a second look at some of the projects you have been planning. What have you assumed about climatic conditions? How are these assumptions shaping your choice of action? Does your research consider climate change as an influencing factor? As we get better at incorporating diverse scenarios, we will have started to develop the "lifestyle" changes we need to adapt to climate change.

FROM THE FIELD

Eastern Forest Environmental Threats Assessment Center (EFETAC) Climate Change Talks

First Friday All Climate Change Talks (FFACCTS) start June 4. The focus of these monthly calls, hosted by the EFETAC, will be on climate change research news across the eastern US (NRS/SRS/FPL/IITF) and occasionally R8 and R9. All are welcome to listen the first Friday of every month at 11 am (ET) with access via VTC, WebEx, and phone. Please contact Perdita Spriggs for additional information.

SRS Climate Change Adaptation and Management Options (CCAMO) Meeting

The southern research station held their first CCAMO meeting in May in Raleigh, NC. About 75 SRS scientists, Region 8 land managers, and several partner groups attended. Several products are expected, including a comprehensive book on climate change impacts and management options across the southern U.S. Dr. Jim Vose, Project Leader of the Coweeta Hydrologic Lab in western NC is leading the effort. Please contact Jim Vose or SRS AD Kier Klepzig for additional details.

Climate Change Adaptation Workshop

PNW's Dave Peterson led the organizing committee for the Westwide Climate Initiative's "Adapting to Climate Change in National Forests: A Workshop for Resource Managers" at Skamania Lodge in the Columbia River Gorge Scenic Area in April. About 139 representatives from the National Forest System, Research and Development, and our partners gathered to learn about the scientific foundation and tools for preparing adaptation strategies and give feedback on the needs and priorities for future implementation of adaptation strategies. Stay tuned as the presentations will be

posted to the web and we will report the link here when available.

Chequamegon–Nicolet National Forest Climate Change Assessment and Response

The Northern Institute of Applied Carbon Science, R9, NRS, NA, and Chequamegon-Nicolet National Forest (CNNF) have worked closely with universities, the Wisconsin Initiative on Climate Change Impacts, and Wisconsin DNR to create climate change vulnerability and mitigation assessments for northern Wisconsin and the CNNF. They are also developing linked response frameworks for the Forest and its neighbors. A Shared Landscapes Workshop (65 participants) and Science Applications Workshop (58 participants) helped inform the process. Planning is underway with multiple organizations to create linked assessments and frameworks throughout the upper Midwest. To see the presentations from the Science Applications and Needs Workshop on April 27-28, 2010, check this link out: <http://www.nrs.fs.fed.us/niacs/tools/ccrf/>

FROM THE WASHINGTON OFFICE

FS Strategy and Implementation Plan for Responding to Climate Change

The FS [Strategic Framework for Responding to Climate Change](#) (2008) is the foundation for integrating climate change into our agency's programs, policies, practices, and partnerships and is the basis for a new climate change implementation plan that is currently in development. The implementation plan will set priorities, guides collaborative response efforts, and be integrated with the Secretary's "all-lands" vision for America's Forests.

RECOMMENDED READING

America's Climate Choices

The National Academies

"A strong, credible body of scientific evidence shows that climate change is occurring, is caused largely by human activities, and poses significant risks for a broad range of human and natural systems." Read more . . . [articles attached](#).

A Synthesis of the Science on Forests and Carbon for U.S. Forests

Michael G. Ryan, et al.

"Forests play an important role in the U.S. and global carbon cycle, and carbon sequestered by U.S. forest growth and harvested wood products currently offsets 12-19% of U.S. fossil fuel emissions. The cycle of forest growth, death, and regeneration and the use of wood removed from the forest complicate efforts to understand and measure forest carbon pools and flows. Our report explains these processes and examines the science behind mechanisms proposed for increasing the amount of carbon stored in forests and using wood to offset fossil fuel use. We also examine the tradeoffs, costs, and benefits associated with each mechanism and explain how forest carbon is measured." Read more . . . [follow this link](#).

LINKS

Climate Change Resource Center

The Forest Service [Climate Change Resource Center](#) provides information and tools to address climate change in planning and project implementation. Start with the [Climate Change Primer](#) to learn more about climate change science and potential impacts.

UPDATE SUBMISSIONS

Please send your submissions on FS climate change related activities to Cathy Dowd: cdowd@fs.fed.us