Engaging a Climate Ready Agency

From Dave Cleaves, Forest Service Climate Change Advisor

JULY 7, 2010

Welcome to the second edition of Engaging a Climate Ready Agency, brought to you by the Climate Change Advisor's office. The first edition is available here. The purpose of this update is to help us keep our eyes on the prize of healthy and functioning ecological, social, and economic systems as the climate around them changes. Through the Climate Change Advisor's office in the Chief's Office, we are working to bring climate change knowledge into our organizational expectations and actions. We will be learning by doing and learning from each other as we work to connect the strong fibers of this vast organization.

MESSAGE FROM DAVE

Getting Organized

"Sound climate science is the foundation for an effective management response." These were Chief Tidwell's words to the participants of a Forest Service workshop on climate change adaptation this past April. Using science to help us deal with change is not new to us. We are a science-based organization. And the vast weight of scientific evidence – thousands of peer-reviewed studies – supports the conclusion that we have entered a period of rapid climatic changes with impacts already occurring in different parts of the country.

Yes, we have growing science portfolio about the specifics of climate change impacts on natural resources as well as about how ecosystems operate and how our management can influence them. But this science is not useful unless we are organized and committed to using it. That requires structure and discipline, especially given the many different kinds of science and the many practices based on science that have to be involved.

The Climate Change Advisor's office is striving to improve our organization for climate change response in four areas: getting connected, taking responsibility, providing direction, and coordinating information and services. Our modus operandi is to, whenever possible, take on climate-related issues through our existing national program structure, not create a separate program. That is why most of the people working on climate change have full-time assignments in functional programs in the Deputy Areas or in the field.

Climate does not act alone. It drives many stressors such as fire, pests, and floods, and interacts with many non-climatic stressors such as land use conversion, introduction and spread of invasives, energy development, human recreation, and others. We are dealing with these stressors through our regular programs and so in one way or another then already dealing with climate change, whether we call it that or not. As climate change and variability influence these disturbance complexes, the need for more integrated cross-deputy and cross-agency organization grows. We will have to meet this need with higher levels of organizational fitness in every respect: scientific strength, organizational speed and agility, political and managerial flexibility, and leadership balance and endurance. We will have to build on what we already know and improve our ability to adopt new science and innovate new approaches.

This update is one way we are trying to connect people inside and outside the Forest Service around

the issues and the lessons we are learning in this changing climate. In implementing the Department's new Strategic Plan (described in the next section), just signed by Secretary Vilsack, the Forest Service will be leading efforts to mitigate and adapt to climate change. In the coming weeks, we will be unfolding a system for accounting for our accomplishments under this new and important responsibility. We will be providing direction through the implementation of the Strategic Framework for Responding to Climate Change and through the implementation of a new derivative roadmap that sets priorities from among the Framework's many recommended actions. Forest Service R&D is already operating off a new companion Climate Change R&D Strategy and Implementation Plan, which outlines research and science application priorities based on an extensive assessment of knowledge needs and scientific realities.

To improve national and regional coordination, we are developing a nationwide, cross-deputy network of leaders set up to enable, coordinate, and advocate climate change action and learning. We are also forming a limited number of standing national teams to be our centers of excellence on key, enduring needs such as carbon and greenhouse gas emissions policy, adaptation planning and capacity building, and education. These standing teams will blend national and field perspectives and define ways to more effectively organize science syntheses, resource assessments, impact analyses, and climate response strategies so that each national forest or field unit is not forced to develop separate or piecemeal approaches to dealing with the multidimensional climate dilemma.

Hopefully by connecting the creative activities of a decentralized organization such as ours and balancing national direction with regional and local discretion, we can fulfill our duty to represent the role of forests and grasslands in the growing national efforts to respond to a changing climate.

FROM THE WASHINGTON OFFICE

USDA Strategic Plan 2010-2015

USDA recently released the 2010-2015 Strategic Plan that guides its agencies towards achieving the goals of rural prosperity, preservation and maintenance of forests and working lands, sustainable agricultural production, global food security, and safe and nutritious foods for Americans. The goals contain 14 objectives that describe the Department's major programmatic policies and cover the many programs and services that USDA administers. Performance measures will track progress in attaining each objective and its overarching goal. Measures specify baseline information and long-term performance targets. The Forest Service Climate Change Advisor's office is preparing an implementation package that describes how we plan to achieve the performance targets that relate to forests and climate change, particularly under Objective 2.2 (Lead efforts to mitigate and adapt to climate change) of Strategic Goal 2 (Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources). The performance measures under this objective seek to reduce greenhouse gas emissions by the U.S. agricultural sector, increase the amount of carbon sequestered on U.S. lands, and bring all National Forests into compliance with a climate change adaptation and mitigation strategy.

Forest Service Designs Greenhouse Gas Emissions Inventory for Operations

Greenhouse gas (GHG) inventories for all federal agencies are due to CEQ by December 31, 2010, per Executive Order 13514 (Federal Leadership in Environmental, Energy, and Economic Performance). Several pilot inventories have been completed by Forest Service units using EPA Climate Leaders. Pilot leads, and other staffs with GHG experience, hosted an interagency workshop with participation

from the National Renewable Energy Lab (NREL), Agricultural Research Service (ARS), and USDA to develop a comprehensive, agency-wide design to capture emissions from sources such as fleet vehicles, purchased electricity, employee commuting, and air travel. This year's GHG inventory will be conducted using existing data sources, many of which can be used to extract information at a national level. While this top-down approach will allow us to meet the reporting requirement for this year, the team will devise strategies and tools to engage employees at all levels in order to reduce agency emissions and move toward sustainable consumption. For more information, or if you would like to participate, please contact Lara Polansky, GHG Inventory Project Lead, at lpolansky@fs.fed.us.

FROM THE FIELD

San Juan National Forest Climate Adaptation Workshop

The San Juan National Forest/Public Lands Climate Adaptation Workshop was held in Durango, CO, in May 2010. The workshop, attended by about 50 employees, was designed to share current research on climate trends, species vulnerability, and forest responses to climate change in the San Juan region and begin to develop a framework for a local Climate Change Strategy. Agenda, notes, and presentations are available at the San Juan NF Green Team website.

Greater Yellowstone Area Climate Action Plan

The Greater Yellowstone Coordinating Committee (GYCC), first formed in 1964, is made up of the Forest Service, National Park Service, and the Fish and Wildlife Service. In April, 2009, the GYCC Sustainable Operations Subcommittee (SOS) completed an interagency greenhouse gas (GHG) inventory for the six national forests, two national parks, and two national wildlife refuges in the Greater Yellowstone Area (GYA). Since then, the GYCC SOS has been engaged in action planning to reduce GHG emissions resulting from operations. Each unit has pledged minimum GHG emissions reductions of 20 percent by 2020; however, GYCC expects to exceed this goal, resulting in an ecosystem-wide reduction of roughly 30 percent. A draft Interagency Climate Action Plan for GYA should be complete by October, 2010. For more information, visit the GYCC SOS website or contact Michael Fiebig, Greater Yellowstone Climate Action Plan Coordinator, at mtfiebig@fs.fed.us.

Genetic Resource Management Climate Change Workshop

Forest Service regional geneticists and researchers met to discuss tree seed movement options in light of climate change. Key points included the importance of: deploying genetically diverse populations in our restoration efforts; including adjacent seed zones to provide the variation needed for the future, although local sources appear to be appropriate choices at present; taking minimal risks over large scales and larger risks at smaller scales (i.e., only do assisted migration studies over large distances on experimental scales); and developing gene conservation programs. Agenda and presentations are posted at the workshop website.

NATIONAL PROGRAMS AT WORK

Land acquisition can support climate change adaptation and mitigation

The Lands and Realty Management program secures and protects the American public's rights, title, value, and interests in its national forests and grasslands and authorizes a variety of uses on those lands to meet the needs of present and future generations. This is achieved in part by purchasing

land to reduce fragmentation, improve management efficiencies, support forest land and resource goals, and respond to community needs. The Land and Water Conservation Fund (LWCF), created by Congress in 1964, provides monies to federal, state, and local governments for such purchases. Since the fund's creation, more than 1.5 million acres of land within or adjacent to existing national forests and grasslands has been acquired. Over the last five years, an average of about 67,000 acres has been purchased each year. The WO Lands staff is coordinating the 2012 LWCF selection process to prioritize a list of desired lands that will be forwarded to the Office of Management and Budget for consideration. Projects are ranked according to nine criteria, including "adaptation to reduce climate change impacts" and "climate change mitigation" in support of Secretary Vilsack's goals as outlined in the Department's Strategic Plan. The land acquisition program is explicit and assertive about assuring habitat connectivity, protecting core habitat areas, and preserving or increasing stored carbon. Regional Foresters have been asked to submit project nominations by October 15.

RECOMMENDED READING

Water, Climate Change, and Forests: Watershed Stewardship for a Changing Climate

Michael J. Furniss, Brian P. Staab, Sherry Hazelhurst, Caty F. Clifton, Ken B. Roby, Bonnie L. Ilhardt, Elizabeth B. Larry, Albert H. Todd, Leslie M. Reid, Sarah J. Hines, Karen A. Bennett, Charlie H. Luce, and Pamela J. Edwards

PNW Research Station has published a report about the role of forests in the stewardship of water in a changing climate. The publication describes healthy, resilient watersheds as a primary strategy for sustaining ecosystems and the clean, abundant water they provide. "Water from forested lands supports people, ecosystems, agriculture, industry, and energy production and is immensely valuable and irreplaceable. With a changing climate, the need for stewardship of forested watersheds to secure high-quality water supplies and healthy aquatic ecosystems is more important than ever," said Michael Furniss, a hydrologist with the PNW Research Station and lead author of the publication. The report is available online and will be available in print beginning July 9.

Adaptation of Forests and Forest Management to Changing Climate

Edited by Catherine G. Parks, Pierre Bernier, Andrzej Bytnerowicz, and Bjorn Hanell

The February 2010 special issue of the journal *Forest Ecology and Management* focuses on forests and climate with selected papers from the August 2008 conference "Adaptation of Forests and Forest Management to Changing Climate with Emphasis on Forest Health: A Review of Science, Policies and Practices." Read the papers ... follow this link.

LINKS

U.S. Global Change Research Program (USGCRP)

The USGCRP, formerly known as the U.S. Climate Change Science Program, coordinates and integrates federal research on changes in the global environment and their implications for society. Climate change publications including the Synthesis and Assessment Products (SAPs), such as SAP 4.4: Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources, can be downloaded or ordered in hardcopy free through their website. Written in plain language, the Global Climate Change Impacts in the United States report summarizes the science and impacts of climate change. Particularly interesting are the fact sheets of regional climate change impacts.

NEWSLETTER SUBMISSIONS

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