



OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT

Administration Releases 10-Year Global Change Strategic Plan

THE NATIONAL GLOBAL CHANGE RESEARCH PLAN 2012-2021



On April 27th, USGCRP annouced the release (http://www.globalchange.gov/whats-new/689-new-usgcrp-strategic-plan-for-2012-2021) of our new National Global Change Research Plan for 2012-2021: A Strategic Plan for the U.S. Global Change Research Program. The Plan focuses Program activities around four strategic goals: Advance Science, Inform Decisions, Conduct Sustained Assessments, and Communicate and Educate. The Plan will guide USGCRP as it continues to coordinate scientific research, support decisions, develop partnerships, and provide global change information and tools to an array of people, communities, and organizations that depend upon it. The 2012 -2021 Strategic Plan Goals and Objectives require more coordination than ever before among its Federal agency members, and with other parts of the Federal government that have traditionally resided outside of USGCRP. Perhaps most importantly, this strategic plan focuses on both advancing scientific knowledge and on deploying that science to support adaptation and mitigation decisions as well as broad awareness and understanding of global change.



We thank all who participated in the development of the National Global Change Research Plan, including the 100+ scientists from USGCRP member agencies and additional Federal partners. Comments from the public and reviews by the National Research Council also greatly improved the final Plan.

Please visit the USGCRP's Resource Library (http://www.library.globalchange.gov) to get a copy of the National Global Change Research Plan for 2012-2021: A Strategic Plan for the U. S. Global Change Research Program. To learn more about the USGCRP's Strategic Plan, please visit the Strategic Planning page (http://globalchange.gov/what-we-do/strategic-planning).

NCA News

- Assessment Authors Sprint for June 1st Deadline
- Agency Scientists Work Behind the Scenes, but at the Heart of the Matter
- Interagency Working Group Develops First Operating Plan for Sustained Assessments
- The Assessment and Anthropologists Mingle
- NCAnet is Growing!

USGCRP News

- Thirsty for some "ICE-t?" Try the new Interagency Communicate & Educate Team!
- Carbon Cycle Science Program and Carbon Cycle Interagency Working Group
- North American Carbon Program annual Scientific Steering Group Meeting
- US Carbon Program presents at Global Carbon Project Scientific Steering Group
- DOE's Terrestrial Ecosystem Science Annual Meeting





OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT

News from the National Climate Assessment



Assessment Authors Sprint for June 1st Deadline

All 240 authors of the 2013 National Climate Assessment Report have been bearing down hard to meet rapidly approaching deadlines and complete a first draft of the 2013 report by June 1st. Most of the 30 chapter teams have already developed a very rough draft of their chapters, "key findings," and a preliminary list of graphics. The National Climate Assessment and Development Advisory Committee (NCADAC) chair (Jerry Melillo) and vice chairs (T.C. Richmond and Gary Yohe) are now working to integrate those draft key findings into a suggested key findings framework for the full report. Reviewing the more than 500 technical input documents received by March 1st has made meeting

our interim deadlines a huge challenge. But the author teams, agencies, and NCA staff have made heroic efforts and, because of them, we've managed to stay right on schedule.

While meeting these milestones is no easy task, maintaining our scheduled pace is critical to completing the 2013 report within the 4 year deadline required by the Global Change Research Act of 1990. This urgency is recognized at all levels. For example, in a recent briefing for Dr. John Holdren, the President's Science Advisor and Director of the White House Office of Science and Technology Policy, and Dr. Jane Lubchenco, the NOAA Administrator and Undersecretary of Commerce for Oceans and Atmosphere, both expressed strong support of our accomplishments to date and great enthusiasm about our ability to keep this large and complex effort on schedule. Both were extremely complimentary of the NCADAC, the NCA authors, USGCRP agencies, staff, and their accomplishments to date.

On Detail to NCA, Agency Scientists Work Behind the Scenes, but at the Heart of the Matter

There are many unsung heroes of the NCA, and we would like to sing for all of them. As a start, we've chosen to feature four senior agency scientists who have been assigned to support the NCA on detail:

- **Dr. Fred Lipschultz**, an oceanographer on detail from NASA, coordinates eight regional technical input and author teams, plus the Oceans and Marine Resources and Coastal teams. In addition to supporting these assessments, Fred has assisted technical input teams and author teams with all NCA guidance, contributed to the USGCRP strategic planning process, and been a sheer pleasure to work with overall. The NCA is grateful for Fred's strategic thinking and his rare ability to see over the horizon, beyond the next looming deadline.
- Ralph Cantral, a Coastal Manager on detail from the Office of Ocean and Coastal Resources Management at NOAA, is the sectoral coordinator for the NCA. He is assisting the water resources, agriculture, forestry, tribal, human health, transportation, coastal, and rural communities technical input and author teams. Ralph managed the largest working group of the NCA, the sector coordination group, has participated in dozens of workshops, and has provided guidance to technical input and author teams on scores of conference calls. We are indebted to him for his sage advice, calm demeanor amidst overwhelming demands, and dedication to the success of the NCA. We wonder, though, if his hands-free phone has been permanently implanted...
- **Dr. Bill Emanuel** is a Department of Energy detailee from the Joint Global Change Research Institute (JGCRI) of the Pacific Northwest National Laboratory who supports the energy, energy/water/land, land use/land cover, and mitigation chapters. Bill has also supported scenario development activities for the 2013 report—including sea level change, regional climatologies and climate outlooks, and land use. He's also supported efforts to develop scenarios for future assessment products. These topics are among the most intellectually challenging efforts that we have undertaken, and Bill's background in carbon cycle modeling, ecosystems research and engineering make his expertise invaluable. In addition to being brilliant, he is also always willing to pitch in to less-glamorous assignments. Thank you, Bill!





OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT

• **Dr. Nancy Grimm** is a professor from Arizona State University who works half time for the NCA and is on detail assignment from the National Science Foundation. Nancy is not only the staff support for the urban infrastructure and vulnerability; biogeochemical cycles; and ecosystems, ecosystem services and biodiversity chapters, she is also an author on the latter two chapters. Nancy is nothing short of amazing – she somehow manages to do full time—even overtime—work on a half-time basis. She's also a great problem-solver, interdisciplinary thinker, and genuine pleasure work with.

Heartfelt thanks to all four of you for everything you have done and are doing to make the NCA possible. We couldn't do it without you!

Interagency Working Group Develops First Operating Plan for Sustained Assessments

A recent all-day retreat of the Interagency National Climate Assessment (INCA) Working Group focused on the development of an operating plan for the Federal component of the sustained assessment process. A parallel planning process is underway by the Sustained Assessment working group of the NCADAC. We expect that the two plans will be pulled together into complementary documents over the summer.

An important part of the sustained assessment effort is to identify interim reports to be prepared as part of the NCA process between 2013 and 2017. Ensuring that these reports and assessment activities are lined up, and that support teams are in place to continue identifying climate impacts, vulnerabilities, and responses, is critical to sustaining our assessment efforts past production of the 2013 NCA report.

Since the last newsletter, NCA staff have been working closely with USGCRP's Implementation Team to identify ways that the NCA can support all four of the goals of the new decadal strategic plan – including Advance Science, Inform Decisions, Communicate and Educate, as well as the Conduct Sustained Assessments goal. Congratulations to all who put effort into the new decadal plan!

The Assessment and Anthropologists Mingle

On March 28, the NCA hosted a panel presentation at the Society for Applied Anthropology's Annual Meeting in Baltimore, Maryland. Emily Cloyd (NCA/USGCRP), George Luber (NCADAC, CDC), Julie Maldonado (NCA/USGRP) and Emily Wasley (USGCRP) participated in the panel.

Presentations focused on engagement and a sustained NCA process and the human dimensions of climate adaptation and human health and welfare—including community-based work that emphasizes the role anthropologists play in climate change research. In the lively discussion that followed, NCA staff heard directly from anthropologists about how to more effectively engage with the anthropological community. Participants described the ways anthropologists can provide a new perspective and additional examples of impacts that may not have been previously considered. One speaker emphasized that an effective way to ensure the assessment is relevant to local communities is to facilitate opportunities for communities to learn from one another. Another described how citizen science that conveys local, on-the-ground knowledge of climate change impacts on people should also be considered and incorporated.

The audience expressed interest in seeing the NCA expand upon the outcomes of the vulnerability assessment methodology workshop held in January 2011, which brought together various social science disciplines. It was suggested that the NCA should continue to engage with the social science community through professional societies, listserves, and the use of social media—in fact the latter was happening in during the discussion, with information being posted to Twitter and Facebook in real time!

The takeaway from the panel discussion is that Anthropologists are primed and ready to bridge the gap between climate science and society. And, through partnerships with the NCA, they can serve as the conduits for translating local, citizen science into informed decisions.





OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT



NCAnet is Growing!

On April 13, the National Climate Assessment (NCA) formally announced the establishment of NCAnet—a network of partners who serve to extend the NCA to a broad audience of producers and users. The Federal Register Notice highlighting NCAnet (available here: https://federalregister.

gov/a/2012-8931) emphasizes the participatory role that NCAnet partners can play in building assessment-related capacities and products.

NCAnet has been in development since October 2011 and currently consists of over 50 partners – and is actively seeking new partners to join the network. Partners leverage their capacities to collect and synthesize science, to communicate with a variety of assessment users, and to convene individuals and organizations interested in climate science in a variety of ways. They also help disseminate NCA findings to various users of assessment information, support NCA events, and produce communications materials, related to the NCA.

More information about NCAnet, including a description of the network and ways that organizations can become partners, a list of current NCAnet partners, and details of upcoming information sessions for anyone interested in joining NCAnet (being held June 4 and July 2), is available here: http://ncanet.usgcrp.gov

News from the U.S. Global Change Research Program



Thirsty for some "ICE-t?" Try the new Interagency Communicate & Educate Team!

At the end of April, USGCRP launched a reinvigorated interagency team to carry out our new strategic goal to "communicate and educate" broad audiences about global change. At its first meeting, the "ICE-t" heard from senior staff at the White House Office of Science and Technology Policy (OSTP) about the imperative and urgency of communicating accurate, timely, contextualized scientific information about climate and global change. The team then heard from ICE-t champion Phil Duffy, a senior policy analyst at OSTP, who laid out a way forward for the group to operate as a community of practice, with a focus on productivity, efficiency, and making an impact.

The first meeting included more than 30 participants from 10 Federal agencies, all enthusiastically seeking to share accurate information about global change in ways that make sense to students, teachers, citizens, and other lay audiences. The main topic of discussion was an initial set of proposed tasks around which the group will form small teams to divide and conquer. A follow up meeting to finalize the list of tasks is being scheduled for mid-May.

Most importantly, membership in the ICE-t is non-exclusive. Any member of a Federal agency is welcome to join the group, and those outside of government are welcome to learn about what the group is doing. For more information, contact the ICE-t Executive Secretary, Becky Fried, at rfried@ostp.eop.gov.





OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT

Carbon Cycle Science Program and Carbon Cycle Interagency Working Group

Last month, USGCRP's Carbon Cycle Science Program and Carbon Cycle Interagency Working Group (CCIWG) took advantage of three major events to interact with stakeholders from the US and abroad, including community scientists from universities, research centers, and national laboratories:

North American Carbon Program annual Scientific Steering Group Meeting

The U.S. Carbon Cycle Science Program's North American Carbon Program (NACP) organized its annual Scientific Steering Group meeting in Washington, D.C. from April 11-12, 2012. The NACP SSG provides scientific leadership for the NACP, interacting closely with the CCIWG and associated entities. The main items of discussion were the NACP Coastal Synthesis; Ocean Acidification Data Management; Soil Carbon Network; NACP future plans; products and structure based on a 2011 Carbon Cycle Science Plan; NASA's Arctic Boreal Vulnerability Experiment (ABoVE), DOE's Next Generation Ecosystem Experiment (NGEE). Members of the Carbon Cycle Interagency Working Group gave presentations on recent interagency carbon cycle science activities and discussed future plans for the US Carbon Cycle Science Program and the NACP. For more information visit http://www.nacarbon.org/nacp.

US Carbon Program presents at Global Carbon Project Scientific Steering Group



GCP scientists and US Carbon Program in Marrakesh (Image credit: Gyami Shrestha, USGCRP)

The Global Carbon Project Scientific Steering Group (GCP SSG) met in Marrakesh, Morocco from April 13-15, 2012. Dr. Gyami Shrestha, Director of USGCRP's Carbon Cycle Science Program, presented the Program's 2011-2013 activities and plans. Dr. Shrestha talked about the goals of the USGCRP's new Strategic Plan and a 2011 Carbon Cycle Science Plan, also providing an overview of recent US carbon policies and online tools such as the Environmental Protection Agency's Greenhouse Gas Inventory. The main items of discussion at this meeting were the carbon-water-energy nexus, urban energy and carbon, emerging links between national and international climate policy issues, global CH4 budget, REgional Carbon Cycle Assessment and Processes (RECCAP), earth carbon pools, extreme variability in the carbon system, ocean carbon and Future Earth. For more information visit http://www.globalcarbonproject.org.

Department of Energy's Terrestrial Ecosystem Science Annual Meeting

The Department of Energy (DOE) held a meeting of Principal Investigators in their Terrestrial Ecosystem Science (TES) Program in Washington, D.C. on April 24, 2012. Dr. Gyami Shrestha, Director of USGCRP's Carbon Science Program Office, presented a talk on the Program, the CCIWG and the US carbon science community's guide for the next decade of US carbon cycle science, a 2011 Carbon Science Plan. The Chair of the National Climate Assessment and Development Advisory Committee (NCADAC), Dr. Jerry Melillo of the Marine Biological Laboratory, presented an overview of USGCRP's National Climate Assessment and its review process. In addition to DOE and other agency staff, more than 150 U.S. scientists and doctoral students participated in this meeting to showcase their DOE-TES funded carbon science project achievements.

For more information visit http://tes.science.energy.gov.





OF THE

U.S. GLOBAL CHANGE RESEARCH PROGRAM & NATIONAL CLIMATE ASSESSMENT

Upcoming Events

"Providing Global Change Science and Information to Enhance Decision Making at Multiple Levels" in Boston, Mass: May 21-23.

USGCRP will present a panel on the National Climate Assessment during the Global Conference on Oceans, Climate and Security (http://www.gcocs.org), in Boston, MA on May 21-23. Steve Fetter, Principal Assistant Director for Energy & Environment at the Office of Science and Technology Policy, will moderate a session on Tuesday, May 22 from 10:30 am – 12:00 pm. The panel also features Kathy Jacobs, Director of the NCA; Susi Moser, convening lead author for the NCA's Coastal chapter; and Scott Doney and Andy Rosenberg, both convening lead authors for the NCA's Oceans and Marine Resources chapter. During the session, panelists will discuss the new vision for USGCRP as a program that understands, assesses, predicts, and informs preparedness and response to global change. They will also describe the NCA's approach to assessing vulnerabilities to climate change and the impacts of climate change on oceans, marine resources, and coasts.

Carbon Cycle Scientific Steering Group Bi-Annual Meeting

The 2012 Carbon Cycle Science Steering Group (CCSSG) meeting will be held at the National Science Foundation in Ballston, Virginia on May 24-25, 2012. The CCSSG, established by the Carbon Cycle Science Interagency Working Group (CCIWG), is a group of scientific experts involved in carbon cycle research and applications, from diverse organizations (e.g., federal, state, university and non-government), to provide individual scientific, societal, and stakeholder input to the CCIWG as it coordinates carbon cycle science and applications within the U.S. federal government and also to assist current and future activities of the USGCRP's Carbon Cycle Program. For more info, visit: http://www.carboncyclescience.gov/ccssg.php.

"A U.S. Perspective on Climate Change Science, Assessment, Communications, and Planning to Inform Adaptation Decisions" in Tucson, AZ: May 29 - 31

The biannual International Conference on Climate Adaptation, "Adaptation Futures" (http://www.adaptation. arizona.edu/adaptation2012/about), will take place from May 29 – 31 in Tucson, AZ. The conference, co-hosted and convened by the University of Arizona and the United National Environment Programme's (UNEP) Programme of Research on Climate Change Vulnerability, Impacts, and Adaptation (PROVIA), will focus on adaptation to climate variability and change, bringing together researchers, policy makers, and practitioners from developed and developing countries to share insights into the challenges and opportunities that adaptation presents.

Dr. Ann Bartuska, USGCRP Vice Chair for Inform Decisions (U.S. Department of Agriculture), Kathy Jacobs Director of the National Climate Assessment (White House Office of Science and Technology Policy), Susan Ruffo, (White House Council on Environmental Quality), and Dr. Susanne Moser with Susanne Moser Research & Consulting and Stanford University will present on a panel discussing a "U.S. Perspective on Climate Change Science, Assessment, Communications, and Planning to Inform Adaptation Decisions." The panelists will discuss the following topics:

- Using global change science to enable and inform adaptation decisions;
- Coordinating National and Federal climate adaptation efforts;
- Assessing the National state of global change adaptation, mitigation, and decision-support; and
- Building sustained stakeholder engagement in the NCA process.

It is expected that 800 domestic and international adaptation scientists and decision makers will attend this event, providing an excellent opportunity for the USGCRP to engage with stakeholders from a range of scales and locales.