



OF THE

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

# NCA Convening Lead Authors Meeting in Washington, D.C.





Dr. John Holdren (OSTP) speaks at NCA CLA Meeting.



Anne Waple (NOAA) and Kathy Jacobs (NCA/OSTP) participate.

The Convening Lead Authors (CLAs) for the 30 Assessment chapters met in Washington DC in June to discuss their chapters' key messages, talk about how findings will be documented, and generally compare notes. Breakout sessions were organized around a number of topics, including criteria for selecting broad themes for the 2013 report as well as ways of better integrating the key messages across the chapters. If the number of side conversations and degree of interaction between participants is an indicator, this meeting was a great success. The outcomes were good, too – finalization of the initial draft chapters, reduced to 3000 words each, with clearer key messages by July 2nd.

In association with the CLA meeting, the Executive Secretariat (ES) and the National Climate Assessment and Development Advisory Committee also met (in fact, the ES met three times!), with 85 participants involved in all. Two NCA workgroups also squeezed meetings in between all of the rest – it was a logistical challenge and led to the conclusion that holding 7 NCA meetings in one week is not the greatest idea, even if it does save a lot of money! But there was a lot of progress in pulling all of the disparate pieces of the NCA report closer together in these meetings, so it was worth all of the effort.

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 USGCRP Strategic Plan & Our Changing Planet -FY12: Now Available in Hard Copy





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### News from the National Climate Assessment



#### The Path Forward

The NCA worked with the standing USGCRP Advisory Committee of the National Research Council (NRC) on Wednesday and Thursday, July 25th and 26th. At that meeting, Kathy Jacobs and Gary Yohe provided background information on progress to date, followed by a discussion of a series of issues that the National Climate Assessment and Development Advisory Committee (NCADAC) has been challenged by in the development of the 2013 NCA Report. Substantial and very valuable feedback was received from the NRC

Committee. The comments received will be shared with the NCADAC and used in refining the draft chapters.

The draft chapters, as refined by the convening lead authors (CLAs) with assistance from NCA editors, are all in hand now. Over the next couple of weeks the Report Integration Team (RIT) will be working with the CLAs to make sure that the chapters are internally consistent, that the themes that cross regions and sectors are well documented and handled in a coherent way, that each of the report's findings are supported by the key messages in the chapters, and that the key messages are documented. Issues that are still unresolved will be the topic of a 3-day meeting August 14th-16th – and the RIT and the Executive Secretariat (ES) will work with the staff to integrate input from the NRC. The NCADAC itself will meet via phone from 3-5 pm Eastern on August 15th (https://federalregister.gov/a/2012-18034).

In the meantime, work is ongoing to develop the graphics for each of the chapters. Conference calls have been held between the graphics team (within the NOAA technical support unit in Asheville, NC), the editors, and the CLAs for the chapters. There is a long list of graphics that need to be assembled and/or modified prior to release of the draft report.

During September and October the Report Integration Team will host webinars for NCADAC members to provide feedback on various components of the Draft 2013 Report. The approval of the PDF version of the draft for public release will occur in mid-November, and a three-month public and National Academies comment period will follow. All comments will be submitted electronically. In the meantime, the team in Asheville is working on the format for the final "e-book" and the team at USGCRP is working on the Global Change Information System that will be used to host all of the NCA data and findings.

### **Development of NCA Special Report Topics**

Even as the 2013 draft report is entering its final phase, plans are under way to identify NCA report topics for reports that will be issued in 2014, 2015 and beyond. A preliminary list of these topics has been developed by the Interagency National Climate Assessment ("INCA") working group. Topics have been divided into two categories: "foundational" topics that are important to the sustained assessment process, such as the development of indicators, investments in scenarios of a variety of kinds, components of the Global Change Information System, etc.; and "topical" assessments that evaluate the state of a particular watershed (e.g., the Mississippi Basin), a region (e.g., the Arctic) or an issue (e.g., the International Context for the NCA). A process for prioritizing these efforts is being developed to make sure that the INCA, the USGCRP Principals, and the NCADAC members have input into these decisions.





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#### Agency-Led Technical Input Reports Becoming Available Online

Many USGCRP agencies sponsored workshops, meetings, and author teams to assemble technical input reports, which were submitted to the NCA by March 1, 2012. Following submission of the reports, many have been prepared for publication. As they become available, the NCA is linking the reports on our website, at <a href="http://www.globalchange.gov/what-we-do/assessment/nca-activities/available-technical-inputs">http://www.globalchange.gov/what-we-do/assessment/nca-activities/available-technical-inputs</a>. Reports are currently available on the following topics, and new reports will be added as they become available:

- Health sector workshops Northwest region and Southeast region
- Energy supply and demand
- Infrastructure, urban systems, and vulnerabilities
- Energy-water-land system interactions

Most of the regionally-focused reports will be published this fall through an arrangement with Island Press and its Climate Adaptation Knowledge Exchange. More information, and ability to order hard copies of the report, will be available through http://www.cakex.org as the regional reports become available.

Please note that these technical input reports were submitted independently to the National Climate Assessment for consideration and have not been reviewed by the National Climate Assessment and Development Advisory Committee (NCADAC).

### News from the U.S. Global Change Research Program

A three-day meeting of the National Research Council's USGCRP Advisory Committee was held on July 24th-26th, focusing on three important topics. First, the implementation status of the Strategic Plan and possible metrics of success; second, the discussion of National Climate Assessment issues (discussed above), and third, an exploration of ways to better integrate social, behavioral and economic sciences into the activities of USGCRP. The initial session was opened by Henry Kelly, the new Principal Assistant Director for Energy and Environment of the Office of Science and Technology Policy. Henry pointed out that progress on implementation of the USGCRP Strategic Plan represents a major step forward in following the advice of the National Academies that the USGCRP ensure the maximum benefits to society from government-sponsored research.

As we have reported previously, a significant aspect of the new Strategic Plan is its focus on topics that have not historically been priorities: Informing Decisions, Conducting Sustained Assessments, and Communicating and Educating. Advancing scientific understanding continues to be the foundation for the program as it has been in the past.

USGCRP Executive Director Tom Armstrong gave an overview of the status of implementing the Strategic Plan, pointing out that USGCRP has limited resources and clearly will not achieve all the activities that the Strategic Plan suggests in a single year or even in 5 years. But USGCRP is lucky that it has a number of partnerships and joint





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programs already in place within the 13 federal agencies, and progress is being made on expanding our capacity to handle new topics through new partnerships beyond those 13. Given the ambitious assignment and the limited resources, agreeing on metrics of success is especially important.

The Social, Biological and Economic Sciences conversation was focused on scenarios and on valuation of impacts, adaptation and mitigation. Both of these topics are complex and require a sophisticated and integrated view of the social and natural systems that we depend on. Both are also extraordinarily useful in a policy context and require significant investments to ensure that the full benefits of these tools can be realized. The NRC Advisory Committee made many useful suggestions regarding the path forward on these integrated topics, but also pointed out that fundamental social science research needs should be prioritized.

#### USGCRP, IPCC and NCA Presentations to PCAST

On Wednesday, July 18th, the President's Council of Advisors on Science and Technology (PCAST) hosted a climate science panel featuring Chris Field, Tom Karl, and Kathy Jacobs. Chris Field, a professor at Stanford and the Leader of Working Group 2 (Impacts and Adaptation) of the International Panel on Climate Change, presented the key findings of the new Special Report on Extremes of the IPCC. A key point made in his talk is that extreme events are becoming more frequent over time, so that what was once a very rare occurrence (droughts, floods, heat waves) will be expected on a much more frequent basis over time. Tom Karl, Chair of the Subcommittee on Global Change Research and director of the National Climatic Data Center, presented the most recent findings of the NOAA State of the Climate Report as well as a new article in the Bulletin of the American Meteorological Society linking a number of recent extreme events (heat waves, droughts, and heavy precipitation) to climate change. Kathy Jacobs provided a broad overview of the National Climate Assessment including its goals, progress over the past 2.5 years towards the 2013 report, and important contributions that are expected from a sustained assessment process. There were a number of questions posed about each of the presentations as well as some suggestions for ongoing engagement of PCAST in these topics.

### ICE-t Membership Reaches Nearly 100, Continues to Grow



After an open signup process, membership of USGCRP's new Interagency Communication and Education Team (ICE-t) has reached nearly 100—and continues to grow. To date, the ICE-t includes enthusiastic individuals from 15 agencies, departments, and offices with a diverse array of communication, education, science, policy, external affairs, and public engagement expertise. The group convened in full on three occasions during April and May to discuss shared priorities, areas of mutual interest, and potential projects. Following those fruitful discussions, the members self-selected into 11 sub-teams to work as smaller groups on the following focused areas of climate change communication and education:

- Rapid Response to Extreme Events
- Website Coordination
- Social Media Coordination





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- Partnerships and Networking
- National Climate Assessment Communication
- Education Grants Coordination
- Place-Based Engagement
- News Synthesis
- Messaging
- Strategy and Action Planning
- Internal Communication

Each of these 11 sub-teams has met at least once to discuss near and long term objectives, milestones, and specific deliverables. Because the ICE-t is operating as a community of practice, under adaptive management approaches, membership, teams, and tasks will evolve over time. While the set of 11 teams may look dramatically different by the end of the year, the overarching ICE-t vision will remain unchanged: "Build and cultivate an attentive, conversant public who understand that climate and related global change is happening, is caused by humans, is having costly impacts now, and that if we address climate change effectively, we can provide a safer, healthier, and more economically sustainable future."

### USGCRP's Process Research Scoping Team Holds 2-Day Meeting in Reston, VA

USGCRP held a two-day workshop June 12th-13th at the US Geological Survey (USGS) headquarters in Reston, VA, organized by the Process Research Scoping Team, a 12-person group appointed by the USGCRP Principals to assist with the implementation of fundamental research activities of the new National Global Change Research Plan 2012-2021. The purpose of the workshop was two-fold:

- First, to develop a high-level outline for USGCRP's short- to medium-term (3-5 years) integrated research agenda for major elements of the Advance Science goal of the new Plan, focusing on topics and activities where interagency collaboration or cooperation offer significant opportunities for moving the science forward
- Second, propose an organizational structure of interagency working groups and teams for carrying out activities contributing to this research agenda.

Over 40 workshop attendees from across the agencies and scientific disciplines represented in USGCRP made significant progress in scoping critical themes and agreeing on organizational guiding principles needed to make progress in those themes. Next steps include a report-out from the Scoping Team to workshop participants on workshop outcomes, with subsequent feedback to the Scoping Team and, ultimately, communication of the workshop recommendations to the USGCRP Principals.





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#### Community Brainstorm with Carbon Program and Carbon Cycle Interagency Working Group

The USGCRP's U.S. Carbon Program Cycle Science Program Office organized the 24th biannual meeting of the Carbon Cycle Scientific Steering Group (CCSSG) at the NSF headquarters in Ballston, Virginia from May 24-25, 2012. The Carbon Cycle Interagency Working Group (CCIWG) updated the CCSSG on recent federal level agency and interagency programmatic activities related to carbon cycle science and of interest to this community of scientists. The CCSSG members, led by its co-chair Dr. Dennis Hansell of the University of Miami, addressed recent scientific developments and needs in the following areas:

- Human dimensions of the carbon cycle: some uncertainties and opportunities
- Climate feedbacks for methane
- Impacts of disturbances on terrestrial carbon cycling in the Northern Hemisphere
- Determining the global marine carbon pump using chemical measurements on Argo floats
- Coastal CO2 fluxes
- Arctic/Boreal carbon balance
- A multi-method intensive effort to improve the prognostic skill of terrestrial biosphere carbon cycle models
- Developing the methodological tools required for successful carbon emissions management
- U.S. Government support for monitoring, verification, and reporting in the Tropics to facilitate REDD
- The Carbon Program's Ocean Carbon and Biogeochemistry (OCB) Program: New initiative



CCIWG members Drs. Mike Kuperberg, Nancy Cavallaro, Carol Jones and other CCIWG members brainstorm carbon Cycle Science Research with the CCSSG members and Dr. Nancy Grimm (USGCRP/ NSF/ASU). (*Photo courtesy - Gyami Shrestha*, USGCRP)

Dr. Alan Townsend, Director of the Division of Environmental Biology (NSF/BIO), welcomed the CCSSG and the CCIWG. The CCIWG and the Program Director of the NSF Division of Environmental Biology (DEB), and USGCRP/NCA Senior Scientist, Dr. Nancy Grimm discussed the National Climate Assessment. The CCIWG and the CCSSG brainstormed potential future activities and entities (projects,products, groups, data centers, etc.) based on the meeting discussions, the newly released 2012-2021 USGCRP Strategic Plan and the community produced 2011 Carbon Cycle Science Plan.

About the CCSSG: The CCSSG, is a group of experts involved in carbon cycle research and application from federal, state, university, and non-government organizations. The CCSSG interacts closely with the CCIWG and the Carbon Cycle Science Program Office to provide individual as well as broad scientific and application input to the CCIWG as it develops and administers carbon cycle science programs within the federal government.





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#### New Staff Members Join USGCRP

Dr. Glynis Lough is the new Chief of Staff for the National Climate Assessment, and is responsible for coordinating the myriad activities of the staff, federal agencies, advisory committee and volunteers as we finalize the 2013 report and build the sustained assessment process. Glynis has been on the job only a few weeks but seems to thrive on drinking from a firehose! She has a PhD in Atmospheric Chemistry from the University of Wisconsin, and has most recently been working for Battelle Labs on a variety of complex interdisciplinary and international projects. She served as a AAAS fellow at EPA for two years, focusing on development of policy for air quality and climate issues, which led to collaboration and project leadership with a wide range of domestic agencies, State governments, NGOs, international agencies, and academics. She is an expert in managing large databases, research, strategic planning, science synthesis, and project management. We are very excited to have her join the NCA team!

Megan McVey serves as the new communications coordinator and web content manager for the USGCRP. Megan's main responsibility is to implement USGCRP's strategic goal to "communicate and educate" by developing and deploying strategies for communicating USGCRP science to a broad range of audiences, creating and disseminating content about USGCRP scientific findings, and by coordinating the activities of the USGCRP Interagency Communication and Education Team (ICE-t). Megan's specialties include, digital marketing, search engine optimization, social media management & strategy, website development, graphic design, and climate science and conservation. Megan holds a Master of Art in Environmental Management, with a focus on strategic environmental communications from Yale University, and a Bachelor of Science in Biology and a Bachelor of Arts in Media Studies from University of Virginia.

# **Upcoming Events**

Ecological Society of America Annual Meeting, Symposium on the National Climate Assessment: Thursday, August 9, 2012.

Presenters will provide an overview of the NCA process, discuss technical inputs to the NCA related to ecosystems sciences, and report on implementing a sustained assessment process. The session will conclude with a moderated discussion that will allow participants to ask questions about the NCA process and products, provide feedback on the assessment process and topics, and comment on progress toward building assessment capacity across the US. More information at <a href="http://eco.confex.com/eco/2012/webprogram/Session7811.html">http://eco.confex.com/eco/2012/webprogram/Session7811.html</a> or contact Emily Cloyd (ecloyd@usgcrp.gov).

### 4th North American Carbon Program All-Investigators Meeting

The Call for Abstracts and Breakout Session Proposals for the 4th North American Carbon Program All-Investigators Meeting (4 – 7 February 2013 Albuquerque, NM, at the Hyatt Regency) has been released. The theme for this year is 'The Next Decade of Carbon Cycle Research: From Understanding to Application'. Dr. Gyami Shresha, UGCRP's





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Carbon Program Office Director, is part of the 4th NACP AIM4 Meeting Planning Committee, serving on two abstract solicitation and review panels. Members of the Carbon Cycle Interagency Working Group (CCIWG) have been participating in the Planning Committee meeting. This meeting is targeted for carbon cycle science stakeholders in the North American region, particularly,

- NACP, AmeriFlux, and Fluxnet researchers & students
- Those interested in the carbon cycle of North America & adjacent waters
- Scientists and government managers associated with US, Canadian, and Mexican Carbon Programs
- Social scientists, policy makers, stakeholders, and others seeking to improve the scientific basis of decision making

Limited funding for students to attend the meeting has been provided by the Carbon Cycle Interagency Working Group (CCIWG) via the USGCRP's U.S. Carbon Cycle Science Program. Follow this link for the application.

### **Announcements**

USGCRP Strategic Plan & Our Changing Planet - FY12: Now Available in Hard Copy

The USGCRP is pleased to announce that hard copies of The National Global Change Research Plan 2012-2021 (i.e. Strategic Plan) and *Our Changing Planet* for fiscal year 2012 are now available for order. Please visit our Resource Library (http://library.globalchange.gov) to place an order for a copy.