



## **The National Climate Assessment: Preparing the Nation for Change**

The first Federal Advisory Committee Meeting was held April 4-6, a major milestone for the National Climate Assessment. The meeting covered many topics that are critical to moving the Assessment forward. In the last week, Dr. Lubchenco (Director of NOAA) announced the Executive Secretariat for the Advisory Committee, putting into place the governing panel for the 2013 Assessment. The NCA also held two process workshops since the end of March, and made presentations at several conferences and meetings throughout the U.S. For further updates on the federal advisory committee and NCA activities, please see <http://assessment.globalchange.gov>.

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### **The National Climate Assessment Development and Advisory Committee: April 4-6, 2011 Meeting**

Please visit <http://globalchange.gov/what-we-do/assessment/ncadac/meetings> for a summary of the opening remarks, to access presentations and handouts from the meeting, and for more information about the activities of the NCADAC. Official minutes from this meeting are forthcoming and will also be posted there.

The first meeting of the National Climate Assessment Development and Advisory Committee (NCADAC) was held April 4-6, 2011 at the L'Enfant Plaza Hotel in Washington, DC. More than 90 people attended, and the agenda was packed. The meeting began with welcoming remarks from Dr. John Holdren (OSTP), Ms. Shere Abbott (OSTP), and Dr. Jane Lubchenco (NOAA). On Day 1, the majority of the time was spent on introductory materials and process-related topics, including FACA rules, ethics, and by-laws for the Committee. Additional presentations included the history of National Climate Assessments, the draft strategic plan developed by the INCA Task Force, and outputs from the 10 methodology workshops held over the last year. Day 2 focused exclusively on the substance of the Assessment, ranging from a discussion of NCA indicators to the 2013 report outline and approach to regions and sectors, to a discussion of the scenarios and modeling approaches. Day 3 started with discussions of the engagement strategy, the timeline and milestones for the 2013 report, and possible data management and peer review approaches. The final discussions resulted in establishment of four ad-hoc working groups that will bring recommendations and decision options to the NCADAC at its next meeting, a webinar to be held on May 20. The four ad-hoc working groups that have been meeting frequently over the past few weeks are:

- 1) Outline, NCA strategy, and federal agency activities: Discussions of the strategic plan, the outline, the agency assignments and potential alternative approaches to phasing Assessment activities over time (chaired by Jerry Melillo, Marine Biological Laboratory)
- 2) Engagement strategy and requests for information: Review of the proposed overall engagement strategy, the approach to regional engagement, and requests for technical input and support from the non-federal community (private, public, NGO, professional societies, universities, etc.) (chaired by Jim Buizer, Arizona State University)
- 3) Scenarios and regional summaries: Development of the approach to scenarios and regional modeling (chaired by Richard Moss, University of Maryland/Pacific Northwest Laboratory)
- 4) Peer review and data management/portal: Approaches to the development of the interagency web portal, data architecture, and peer review process (chaired by T. C. Richmond, GordonDerr LLC)

For the full text of presentations from the meeting, please go to: <https://sites.google.com/a/usgcrp.gov/ncadac-meeting-april-2011/>. Official minutes from the first meeting are still in development. Tom Karl, Chair of the Subcommittee on Global Change Research, facilitated the first meeting of the Committee and summarized some perspectives discussed at the meeting, including the following:

- The NCADAC, USGCRP agencies, and NCA staff should think of the art of the possible in completing the NCA, that is, what can realistically be accomplished in the short term vs. the longer term process.
- There is a strong commitment to the idea of a sustained, inclusive assessment process that builds over time.
- The 2013 report should be viewed as a stepping stone to the longer term process.
- Source material for the NCA will be drawn from federal agencies and from other sources.
- Agencies are ready to get moving and need decisions about what the priority topics are.
- There is strong support for a system of national indicators that would include a long-term commitment to consistently evaluating climate issues (impacts, vulnerability, adaptive capacity, etc.) in a global change context.
- The use of a web-based approach to providing NCA products is well-supported for a variety of reasons, including more flexibility in deployment of information over time, better potential to support decisions, and more flexible ways to store and retrieve information.
- A risk-based framework may be helpful in communicating about the NCA and might consider the topics of greatest concern to citizens and the importance of extreme events.
- The 2009 report could be viewed as a first installment in the new way of doing Assessment, with a focus on where there are existing weaknesses or new information that can be used to update that report.
- There is a commitment to ensuring information quality, data integrity, and the highest level of peer review, leading to a need to draft guidelines soon.

### **Members of the NCADAC and the NCADAC Executive Secretariat Announced**

Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator Dr. Jane Lubchenco, recently announced her selection of Jerry Melillo as chair, and Terese Richmond and Gary Yohe as vice chairs of the National Climate Assessment Development and Advisory Committee. Melillo is a distinguished scientist at the Marine Biological Laboratory in Woods Hole, Mass. Richmond is a partner in the GordonDerr, L.L.P. law firm in Seattle, Wash., and Yohe is the Huffington Foundation Professor of Economics and Environmental Studies at the Wesleyan University in Middletown, Conn. Ten others representing industry, academia, and government were named to the executive secretariat: James Buizer (Arizona State University), David Gustafson (Monsanto Company), Sharon Hays (Computer Sciences Corporation), Thomas Karl (NOAA), Jo-Ann Leong (Hawaii Institute of Marine Biology and Oregon State University), Susanne Moser (Moser Consulting), Richard Moss (University of

Maryland and Pacific Northwest National Laboratory), Lindene Patton (Zurich Financial Services), Andrew Rosenberg (University of New Hampshire and Conservation International), and Donald Wuebbles (University of Illinois).

Information about all of the NCADAC members, including their biographies, can be found online at <http://assessment.globalchange.gov>.

### **Physical Climate Indicators Workshop**

NASA sponsored an NCA workshop on Physical Climate Indicators on March 29-30 in Washington, DC. In combination with workshops on ecological indicators (November 2010) and societal indicators (see below), the workshop launched discussions about a national system of climate indicators. The nearly 60 participants, primarily from Federal agencies, received a white paper in advance of the workshop that detailed the NCA vision for a coordinated suite of climate-related indicators that both takes the pulse of key aspects of climate and climate impacts for the United States and is easily communicated to interested parties. A framework was provided to ensure that everyone understood the audience, scope and purpose, and a common lexicon was defined since indicator terminology varies widely. Several potential approaches to grouping or categorizing the indicators were presented.

Participants spent most of their time in small breakout groups with facilitators, working to address a set of questions. The first breakout solicited comments on the NCA indicator framework, followed by discussion of the potential approaches to organizing the physical climate indicators. Once several approaches were identified, the groups then worked to define specific measurements, or types of measurements, that could be used to create the indicators.

A consistent concern among participants was the ability of the indicators to function at both the national and the regional to local level. Participants were also concerned about how the NCA indicators would relate to existing indicator systems and whether the NCA should simply provide the underlying data for others to construct their own indices. Participants were clear that leveraging existing resources would be necessary to meet the required goals of the NCA as an ongoing, sustained effort. There was also much debate over presenting physical indicators as aggregated indices as opposed to providing several indicators within a broader framework as has been done in other agency efforts.

In general, the participants gravitated towards thematic indicators that could readily include statistical measures. Two analogies for the indicators were presented and discussed – warning signs and vital signs. There was concern that framing the indicator suite as ‘warning signs’ might prejudice problems and imply set thresholds, whereas ‘vital signs’ would be seen as more consonant with indicating the current state of the climate system and potential impacts. The underlying message however is an important one – we need to design an indicator approach that allows us to monitor changes in systems that are important to the nation.

The report from the workshop will be available from <http://assessment.globalchange.gov> when complete.

### **Societal Indicators Workshop**

On April 29-30 at the Madison Hotel in Washington, DC, NASA hosted an NCA workshop on Societal Indicators, one of a suite of three workshops on indicators held during the last six months. In combination with the ideas generated at the ecological and physical climate indicators workshops, discussions will begin about an overarching framework for national indicators of global and climate change.

The societal indicators workshop focused on how we can create indicators to address climate impacts, adaptation, vulnerabilities and resiliencies, and preparedness. There wasn't a one-size-fits-all approach that emerged to address these questions and much of the discussion emphasized effective leveraging of existing efforts and the involvement of stakeholders and users from the beginning to assure that the indicators are useful.

Some of the important points made at this workshop were that indicators should be representative, not comprehensive – we cannot afford to measure all impacts at every scale. Despite the fact that we can't measure all impacts, there were differing opinions expressed about the concept of "synthetic" indicators or indices – those that are created by combining different measured variables. Because these indices synthesize a suite of information into a single indicator, these indices can communicate a lot of information in a single value, but the method to create the indices is not as transparent as just presenting a series of individual metrics.

Significant discussions centered on what exactly we are trying to accomplish with the indicators. One set of answers to this question was: 1) Get people to pay attention to what is happening (measure things people care about); 2) Be sure the data and methods are credible so that they believe us; and 3) Incentivize positive behavior, such as adaptive actions. Finally, one of the other points was that the indicators need to fit into decision processes, and the NCA should think of "Assessment Services" in a similar way to thinking of the "Climate Service" or the "Weather Service."

The workshop report is being written and will be available this summer from <http://assessment.globalchange.gov>.

## **Recent Presentations for the NCA**

### *Climate Change: Indigenous Peoples and Adaptation Symposium*

Ralph Cantral, Sector Coordinator for the NCA, made a presentation to the Climate Change: Indigenous Peoples and Adaptation Symposium at the University of Montana on April 30. Other speakers on the agenda included Dr. Steven Running (University of Montana), Dr. Daniel Wildcat (Haskell Indian Nations University), Dr. Nancy Maynard (NASA), Dr. Margaret Hiza-Redsteer (USGS). Many of the attendees had also attended the American Indian Alaska Native Climate Change Working Group meeting earlier in the week at Salish Kootenai Tribal College in Pablo, Montana. Much of the discussion at the Symposium focused on the need for indigenous peoples to be fully involved in assessing what is needed to adapt to the impacts of climate change.

### *Association of American Geographers*

Kathy Jacobs, Director for the NCA, hosted a panel session on Preparing the Nation for Change: The Science, Processes, and Products of the 3rd NCA at the Association of American Geographers conference on April 13 in Seattle, WA. Jacobs delivered an overview of the NCA and the panel discussion included Marc Perry (US Census), a member of the Interagency National Climate Assessment Taskforce, and Terese Richmond (Gordon Derr, L.L.P.), a Vice Chair of the National Climate Assessment Development and Advisory Committee.

### *American Water Resources Association*

Kathy Jacobs, Director for the NCA, participated in a panel discussion on Federal Agency Planning for Climate Change Adaptation at the American Water Resources Association Spring Specialty Conference in Baltimore, MD on April 18. Other panelists included Matthew Larsen (US Geological Survey) and Chester J. Koblinsky (NOAA).

### **Upcoming Listening Sessions**

The NCA will be presenting listening sessions at a number of upcoming professional society conferences this summer. At each session, NCA staff will provide an overview of the assessment process and products and conduct a listening session to collect inputs from participants. If you are attending any of these conferences, we invite you to join us - to learn more about the NCA, ask questions about the process and products, and provide input on what you'd like to see as a part of the NCA. For more information, please contact Emily Cloyd at [ecloyd@usgcrp.gov](mailto:ecloyd@usgcrp.gov), unless otherwise noted. Additional events may be added in the future - please check <http://assessment.globalchange.gov> for the most recent list of upcoming NCA meetings and workshops.

June 7, 2011, 10:45 am - 12:00 pm

*International Symposium on Society and Resource Management - Madison, WI*

July 19, 2011, 10:30 am - 12:00 pm

*Soil and Water Conservation Society, Washington, DC*

July 20, 2011, 2:45 pm – 4:00 pm

*Coastal Zone '11, Chicago, IL*

Please contact Ralph Cantral ([rcantral@usgcrp.gov](mailto:rcantral@usgcrp.gov))

August 8, 2011, 10:00 - 11:30 am

*Ecological Society of America, Austin, TX*