



United States Global Change Research Program
National Climate Assessment

The National Climate Assessment: Preparing the Nation for Change

The U.S. Global Change Research Program (USGCRP) welcomes you to the first edition of the National Climate Assessment newsletter!

This newsletter will be used to keep you posted on developments of the third U.S. National Climate Assessment (NCA). The National Climate Assessment is being conducted under the auspices of the Global Change Research Act of 1990, which requires a report to the President and the Congress that evaluates, integrates and interprets the findings of the \$2.6 billion federal research program on global change (USGCRP) every four years. In addition, the 1990 Act requires an assessment of the impacts of global change on a variety of sectors, and projections of future conditions for 25 to 100 years.

You are receiving this email because you have indicated an interest in hearing about activities related to the US National Assessment of the Impacts of Climate Change. If you prefer not to receive future e-newsletters, please reply to this email with "REMOVE" in the subject line. The National Climate Assessment newsletter will be produced on a monthly basis to keep interested stakeholders up to date on NCA activities and plans. For more information about our schedule and activities, please see our website at <http://globalchange.gov/what-we-do/assessment> or contact us at engagement@usgcrp.gov.

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What's New about the new National Climate Assessment?

There have been two previous national climate assessment efforts, one completed in 2000 and one that resulted in the publication of the report *Impacts of Global Change in the United States* ([link](#)) in 2009. This new National Climate Assessment will differ in multiple ways from previous U.S. climate assessment efforts. For example, unlike previous efforts, it is focused on evaluating the Nation's progress in adaptation and mitigation; building a long-term, consistent process for evaluation of climate related risks and opportunities; providing information that supports decisions within regions and sectors of the U.S.; and evaluating the current state of scientific knowledge relative to climate impacts and trends.

National climate assessments act as a national snapshot or status report on climate change science and impacts, based on observations made across the country and compare them to what models of the climate system have predicted. They aim to incorporate advances in the understanding of underlying physical processes and social, ecological, and policy systems, and provide integrated analyses of impacts and vulnerability. Performing assessments helps evaluate the effectiveness of our mitigation and adaptation activities and identify economic opportunities that arise as the climate changes. Assessments also serve to integrate scientific information from multiple sources and highlight key findings and significant gaps in our knowledge. The NCA will help to provide the scientific underpinnings that can be used by communities and the Nation as a whole to create more sustainable and environmentally sound development paths. It also aims to provide a basis for prioritizing federal climate science investments.

Unlike previous national climate assessments, a primary goal is to establish permanent assessment capacity both inside and outside of the federal government. This new National Climate Assessment will be an ongoing process that involves stakeholders and scientists across the country. Assessment activities will result in the capacity to do ongoing assessments of vulnerability to climate stressors, observe and project impacts of climate change within regions and sectors, develop consistent indicators of progress in adaptation and mitigation activities, and allow for production of a set of reports and web-based products that are useful for decision-making at multiple levels.

The vision for the NCA incorporates recommendations from the National Research Council and other feedback from previous assessments. It has been developed within the Interagency National Climate Assessment (INCA) Task Force, which represents 18 agencies and departments that are working together to create the NCA process. For a synopsis of the assessment advice that has been received from multiple sources, please refer to <http://globalchange.gov/what-we-do/assessment>.

Key Objectives of the National Assessment:

- Create a sustainable assessment process that involves networks of participants in regions and sectors across the country in addition to engaging federal scientists in multiple agencies. The reports that will be generated will be viewed as a “time-slice” through an ongoing evaluation effort. This process will enable national, regional, sectoral or topical reports to be created over time as needed to serve important policy and science objectives.
- Establish an ongoing, national-scale, consistent and replicable approach to assessing current and projected climate impacts and climate-related risk in the context of other stressors. The intent of this effort is to identify opportunities as well as risks associated with changes in climate conditions. An ongoing component will be work towards attribution/explanation of events and trends that are observed in the climate system. This information will be used to prioritize federal activities that support adaptation and mitigation decisions made within the states, regions and sectors and to constantly reassess priorities for federal science investments.

- Within this broad ongoing assessment, nest more specific investigations of regions and topics that have high priority due to existing or anticipated climate stresses, generally in the context of a variety of other concerns. The number and scale of these specific nested investigations, as well as the time frame and responsibility for completing products related to them have not yet been determined.
- The NCA office will perform a central coordination function while depending on a distributed process and inclusive engagement with partners both inside and outside of the federal government to meet NCA goals. Although it is the role of the federal government to conduct a national climate assessment and to provide the support needed for regional efforts, it is neither appropriate nor possible for the federal government to actually conduct all of this work by itself. This distributed approach will also maximize the likelihood that national climate assessments will continue over time. However, the federal government must play a leading role in cross-regional and international aspects of the NCA.
- To the extent possible, depend on regional networks and a variety of public and private partners to do the “ground-truthing” of scientific findings, and depend on federal monitoring programs for larger scale or more comprehensive assessments and evaluations. For example, the State of California has an ongoing climate assessment process, and there are multiple states, tribes and cities that are actively engaged in adaptation and mitigation efforts. Further, many NGOs and universities have capacity to assist and are actively engaged in climate adaptation and mitigation efforts. The intent is to have the National Climate Assessment become the “connective tissue” that ties these efforts to federal science programs.
- Recognize the international context of climate trends and efforts and help to support some of the U.S. inputs to the IPCC. Adaptation and mitigation decisions within the U.S. have impacts on other countries, and vice versa. Climate impacts occur within economic and social systems that affect every country across the globe. The NCA will lay the groundwork for a strategic approach to engaging in climate assessment activities internationally and with a specific focus on North America.
- Build a strong stakeholder engagement process, based on mobilizing a regionally coordinated network of local stakeholders and a nationally coordinated network of professional associations to connect to a series of important sectors and various levels of government.

Building the Strategic Plan for the National Climate Assessment

A “strawman” outline for the Assessment process was first circulated in January, 2010. This outline served as a basis for two meetings in Chicago at the end of February: the Midwest Regional Workshop and the Strategic Planning meeting. These meetings served as a starting point for the design of the strategic plan for the assessment from both a regional and national perspective.

There have been seven meetings of the INCA Task Force and a small workshop in June, 2010 to draft a preliminary outline and work plan for the report due in 2013.

Upcoming Events and Outreach:

The Assessment staff plans to post the draft report outline, work plan, and overview of the National Climate Assessment for public comment in late summer 2010.

The Assessment staff is also working with the INCA Task Force to plan a series of methodological workshops that will provide guidance to the ongoing assessment effort. Topics under consideration include:

Knowledge Management for the Assessment: Data management, archiving, quality assurance /quality control, peer review, qualifications for inclusion of data as official Assessment documents; documentation of sources; chain of custody of information

Communications and Engagement Strategy for the Assessment: Ensuring consistent messages about what we are trying to accomplish, encouraging co-production of information between government and external stakeholders, coordination with other federal climate-related programs, design of documents and tailored communications with a variety of partners

Economic and Alternative Valuation Techniques for the Assessment: Ways of evaluating the effectiveness of adaptation options using tools that acknowledge non-monetary values and inter-generational benefits, mitigation options and other assessment-related activities

Vulnerability Assessment Techniques for the Assessment: Identification of approaches to evaluating the relative vulnerability of ecological and social communities, approaches to prioritization of risk across sectors and regions, criteria for inclusion of topics in Assessment activities

Planning and Guidelines for Regional and Sectoral Assessments: Guidelines to ensure consistent approaches to building regional and sectoral components of the assessment

National Climate Assessment - International Context Workshop: A discussion of the ways in which the NCA will be integrated with the assessment activities of other nations, types of information that the NCA will either use or produce that support adaptation and mitigation decisions in the global context

Scenarios Strategy: Guidance and rationale for the development of consistent projections of possible future conditions for use within NCA activities, with intentions of providing a basis for IPCC scenario activities

Modeling Strategy: Which model outputs will be used for what purposes in NCA activities: rationale for approaches selected. This includes socioeconomic, land use, *etc.* in addition to climate model output

Special Session on Downscaling of Climate Models: Best management practices in the context of developing NCA information for regional decision-makers

Monitoring Climate Change and its Impacts: Sources for Indicators, Detection, and Attribution: Selecting from existing monitoring and observing systems and a variety of impact reports, design an integrated, ongoing monitoring system for the NCA. This is the establishment of a long-term, consistent approach to

documenting climate impacts and trends (including impacts to the built environment and energy sectors, socio-economic and public health trends, and disasters and extreme events, etc.).

Three Meetings: November, January, and March

Beginning in January of 2011, the regional and sectoral networks will be mobilized to support the initial distributed “ground-truthing” of climate impacts and vulnerabilities, evaluation of adaptation options and science gaps, *etc.*

In the meantime, NCA staff are working to establish a website and calendar of events to be sure that interested parties can stay informed of our progress, and to establish a blog that will facilitate providing input to the Assessment Process. The staff is also working with the General Services Administration to establish an ongoing Federal Advisory Committee primarily populated by non-federal members. It is important to get this team in place as quickly as possible to ensure a consistent source of advice for designing and conducting the ongoing assessment process. In addition, four different National Academy panels have reviewed and commented on the strategy for the NCA. They include: the Climate Research Committee; the Board on Atmospheric Science and Climate; the Human Dimensions of Global Change Committee; and the America’s Climate Choices Committee.

Building the National Climate Assessment Network

In our next newsletter we will report on progress in building the regional and sectoral partnerships and the web-based data systems that will form the core of our ongoing process. If you have specific questions about how we are doing this, Sheila O’Brien will be happy to help at sobrien@usgcrp.gov.

Introducing Our Staff

We would like to take this opportunity to introduce some members of our National Climate Assessment staff. We will continue building our team over the next few months as the NCA effort ramps up, and we will update the staff section of our website as more people join our team.

Kathy Jacobs

Kathy Jacobs is the Assistant Director for Climate Assessment and Adaptation at the Office of Science and Technology Policy. She is on a mobility assignment from the University of Arizona, where she is on the faculty of the department of Soils, Water and Environmental Science. She is the Director of the National Climate Assessment and part of a team working to develop a national adaptation strategy. Jacobs recently chaired a National Research Council panel on climate change adaptation within the America’s Climate Choices Project, and has served on six other Academy committees. From 2006-2009 Jacobs was the Executive Director of the Arizona Water Institute, a consortium of the three state universities focused on water-related research, education and technology transfer in support of water supply sustainability. She has 23 years of experience as a water manager for the state of Arizona,

including 14 years as director of the Tucson Active Management Area, and has a Master's degree in Environmental Planning from the University of California, Berkeley.

Sheila O'Brien

Sheila O'Brien serves as the Coordinator for the National Climate Assessment, working in the USGCRP office. In this role Sheila contributes to strategic planning, coordinates the activities of the Interagency National Climate Assessment (INCA) Task Force, assists with stakeholder identification and interaction, and facilitates the creation of assessment-related products. Prior to joining the USGCRP Integration and Coordination Office in 2010, Sheila worked in the property insurance industry as a research analyst at Insight Catastrophe Group, and previously as a lab manager in Marine Environmental Biology at the University of Southern California. She holds a Master in Public Affairs with a concentration in Science, Technology and Environmental Policy from the Woodrow Wilson School at Princeton University and a Master in Oceanography from the University of Washington.

Emily Therese Cloyd

Emily Therese Cloyd coordinates inter-agency activities related to ecology, assessment and climate change adaptation. Prior to joining the USGCRP ICO in February 2007, Emily held a Dean John A. Knauss Marine Policy Fellowship, serving as Modeling Coordinator at the National Oceanic and Atmospheric Administration's Center for Sponsored Coastal Ocean Research. She holds a Master's degree in Conservation Biology from the State University of New York College of Environmental Science and Forestry and a Bachelor's degree in Plant Biology from the University of Michigan and is currently pursuing a PhD in Environmental and Natural Resources Policy at SUNY-ESF. Her research interests lie at the intersection of science and policy, studying how science and scientific information are used to support natural resources management and policy decisions.

Anne Waple

After eight years as a climate scientist in NOAA's National Climatic Data Center, working primarily in the Climate Monitoring Branch, Dr. Anne Waple served as the Communications Manager at the U.S. Global Change Research Program in Washington DC. Now, back at NOAA, Anne is the Assessments Manager for NOAA's Assessments Program, housed primarily at the National Climatic Data Center. She manages and coordinates regional and national climate assessment activities for the agency, and assists in efforts associated with NOAA's climate services and adaptation activities. Anne has helped edit or author over a dozen peer-reviewed U.S. Government climate reports and assessments and has co-authored over a hundred operational online climate reports and given numerous climate change talks and presentations. Anne earned her Ph.D. in Geosciences from the University of Massachusetts at Amherst.

For more information:

For more information, please see <http://globalchange.gov/what-we-do/assessment> or contact the U.S. Global Change Research Program, Suite 250, 1717 Pennsylvania Ave. NW, Washington DC 20006. Tel. (202)223-6262, Email engagement@usgcrp.gov