Preparing the Nation for Change Introduction to the National Climate Assessment



Introduction

The National Climate Assessment (NCA) is an important resource for understanding and communicating climate change science and impacts in the United States. It informs the nation about already observed changes, the current status of the climate, and anticipated trends for the future. The NCA report process integrates scientific information from multiple sources and sectors to highlight key findings and significant gaps in our knowledge. The NCA is also establishing consistent methods for evaluating climate impacts in the U.S. in the context of broader global change. Finally, findings from the NCA provide input to federal science priorities and are used by U.S. citizens, communities and businesses as they create more sustainable and environmentally sound plans for the nation's future.

What's New about the 2013 Assessment?

The 2013 NCA will set the stage for more comprehensive assessments in the future. It will differ from previous U.S. climate assessments by:

- Being an ongoing effort, rather than a periodic report-writing activity; Evaluating the nation's progress in adaptation and mitigation;
- Building long-term partnerships with entities in both the public and the private sectors;
- Identifying national indicators of change within regions and sectors, and establishing consistent and ongoing methods for evaluating them;
- Including new methods for documenting climate related risks and opportunities;
- Providing web-based information that supports decision making processes within and across regions and sectors of the U.S.



The National Climate Assessment studies how climate change impacts different regions (depicted on the map above) and sectors across the United States, including: Human Health | Land Use and Land Cover Change

Agriculture | Forestry | Ecosystems and Biodiversity Water Resources | Energy Supply and Use | Transportation Urban Infrastructure and Vulnerability | Rural Communities Biogeochemical Cycles | Oceans and Marine Resources Tribal, Indigenous, and Native Lands and Resources Coastal Zone | Adaptation and Mitigation Intersections among These Topics

Objectives

The NCA is envisioned as an inclusive, nationwide process with many key objectives, including:

- Synthesizing relevant climate science and information;
- Increasing understanding of what is known and not known about climate change;
- Informing climate science priorities;
- Building climate assessment capacity in regions and sectors;
- Supporting climate-literacy and skilled use of NCA findings.

United States Global Change Research Program www.globalchange.gov

Timeline

The Global Change Research Act of 1990 mandates that a national climate assessment be conducted every four years, resulting in a report to the President and Congress. Because the last NCA was published in 2009, the next is due in 2013. A draft report will be completed by the NCA Development and Advisory Committee in 2012 so that it may be thoroughly reviewed by scientists and experts from inside and outside the federal government, the National Academy of Sciences, and the public. The focus on developing a continual assessment process means that activities within regions and sectors are expected to be ongoing, and reports will be produced on a more frequent basis.

Expected Outcomes and Benefits

The NCA will present a comprehensive picture of the changes in regions and sectors that occur in response to climate variability and change, including effects on public health and human well-being, the economy, infrastructure, and the environment. This information will help decision makers throughout the country design adaptation policies, help citizens prepare themselves for climate change impacts, and help everyone understand how their everyday decisions impact the climate and the environment.

How Can I Participate?

The National Climate Assessment will convene listening sessions, workshops and other meetings related to developing process and content. The public is also invited to provide comments for topics related to the NCA and expressions of interest for offering technical inputs or assessment capacity. To see the July 2011 Request for Information, visit http://www. globalchange.gov/what-we-do/assessment/ backgroundprocess/notices.

To learn more about NCA activities and opportunities for involvement, please visit http://www.globalchange.gov and sign up online for our periodic newsletter.



In the Southeastern United States, the number of days per year with peak temperature over 90°F is expected to rise significantly, especially under a higher emissions scenario as shown in the map above. By the end of the century, projections indicate that North Florida will have more than 165 days (nearly six months) per year over 90°F, up from roughly 60 days in the 1960s and 1970s. The increase in very hot days will have consequences for human health, drought and wildfires.

The Global Change Research Act

The Global Change Research Act of 1990 (GCRA), Section 106, requires an assessment that:

- Integrates, evaluates, and interprets the findings of the Program [the U.S. Global Change Research Program] and discusses the scientific uncertainties associated with such findings;
- Analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity;
- Analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years.

The National Climate Assessment is an activity of the United States Global Change Research Program, whose vision is to create: "A nation, globally engaged and guided by science, meeting the challenges of climate and global change."

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