

## National Climate Assessment

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The [National Climate Assessment](#) (NCA) is an effort required every four years by the Global Change Research Act of 1990 (GCRA 1990). The NCA serves as a status report about climate change science and impacts for the United States. The NCA reports on 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; and analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years. The [last NCA report](#) was published in 2009, in a volume edited by Tom Karl (NOAA), Jerry Melillo (Woods Hole Oceanographic Institute), and Tom Peterson (NOAA), that drew upon 21 [synthesis and assessment products](#) produced between 2006 and 2008.

The current NCA in-progress effort will produce a report that will be released for public review in December 2012 and in final form in November 2013. The current NCA is distinguished in several ways from previous assessments, as follows: (a) in addition to reporting on sectors and science required by the 1990 GCRA, this assessment will include chapters on cross-cutting issues, such as “Impacts on biogeochemical cycles,” and “Water, energy and land use”; (b) it will be published as an interactive electronic website and an e-book, allowing immediate links and access to metadata and data used in graphs and analyses related to “key messages” in each chapter; (c) it will be accompanied by a substantial effort to institute a sustained, ongoing assessment process ([called NCAnet](#)) – in order to facilitate the development and transfer of case studies and information that can easily be used as input to the next NCA, and to cultivate partnerships between scientists and a broader audience of stakeholders, to ensure the relevance and usability of future assessment reports and products.

The confluence of U.S. CLIVAR and National Climate Assessment goals offer win-win opportunities for CLIVAR scientists and working groups. In particular, CLIVAR reports and scientific studies on understanding patterns of climate variability, documenting rapid climate changes and evaluating the potential for abrupt future changes, and detecting and describing high impact climate variability and change all coincide with NCA efforts to provide the most up-to-date and well-documented snapshot of climate science studies and observed and projected impacts pertaining to regions and sectors in the United States. Moreover, the WCRP’s initiative to enhance climate services and provide science and products that inform decisions and are useful and usable to decision-makers, intersects with the NCAnet initiative to develop assessment-related capacities, such as collection and synthesis of data and scientific information and the dissemination of findings to users of climate assessment information.