

Fourth National Climate Assessment Vol. II ***Impacts, Risks, and Adaptation in the United States***

Product Summary

Note: This is an update of the content currently available at globalchange.gov/content/nca4-planning. This content will be updated on the day of release and is intended as a resource for media and/or members of the public who have questions about the process.

The U.S. Global Change Research Program and the National Climate Assessment

The U.S. Global Change Research Program (USGCRP) was established by Presidential initiative in 1989 and mandated by Congress in the Global Change Research Act (GCRA) of 1990. Its mandate is to develop and coordinate “a comprehensive and integrated United States research program which will **assist the Nation** and the world **to understand, assess, predict**, and **respond** to human-induced and natural processes of global change” (emphasis added).

USGCRP comprises 13 Federal agencies that conduct or use research on global change and its impacts on society. It functions under the direction of the Subcommittee on Global Change Research (SGCR) of the National Science and Technology Council’s Committee on Environment.

USGCRP has four major responsibilities: (a) coordinating global change research across the Federal government, (b) developing and disseminating mandated products, (c) using research results to help inform decisions, and (d) fostering international research cooperation.

One of the products mandated by the GCRA is a quadrennial assessment that USGCRP is to prepare and submit to the President and the Congress. This assessment, referred to as the National Climate Assessment, is directed by the GCRA to:

1. Integrate, evaluate, and interpret the findings of the Program and discuss the scientific uncertainties associated with such findings
2. Analyze 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
3. Analyze current trends in global change, both human-induced and natural, and project major trends for the subsequent 25 to 100 years.

The current NCA was developed in two volumes: the *Climate Science Special Report* (CSSR, NCA4 Vol. I) and *Impacts, Risks, and Adaptation in the United States* (NCA4 Vol. II). CSSR is a scientific analysis that predominantly addresses requirements (1) and (3) in the list above. NCA4 Vol. II uses that scientific assessment to inform an analysis of the impacts of global change on the topics specified in (2) above, while expanding upon elements of (1) and (3), as appropriate.

The CSSR (science.2017.globalchange.gov) was released in November 2017. NCA4 Vol. II (nca.2018.globalchange.gov) was released in December 2018.

What is the Fourth National Climate Assessment?

Volume II of the Fourth National Climate Assessment (NCA4), *Impacts, Risks, and Adaptation in the United States*, analyzes the impacts of global change, as described in Volume I (*Climate Science Special Report*), on topics and regions of the United States.

The development of NCA4 Vol. II was overseen by a Federal Steering Committee appointed by the SGCR and comprised representatives from USGCRP agencies. NOAA, as the administrative agency for NCA4, was responsible for establishing procedures for the report, releasing Federal Register Notices, and certifying the report met Information Quality Act standards. It has undergone an extensive, multi-phase process of internal and external review from Federal agency experts, the general public, and a panel of experts from the National Academies of Sciences, Engineering, and Medicine.

The following groups contributed to NCA4 Vol. II:

- Federal Steering Committee (SC) was responsible for the development, production, and content of the report as well as high-level scoping to ensure coherence, relevance, and responsiveness to the Global Change Research Act and the USGCRP Strategic Plan. The SC selected Federal Coordinating Lead Authors (CLAs), Regional Chapter Leads, and Review Editors based on a number of criteria, including scientific expertise and experience with scientific assessments.
- Federal Coordinating Lead Authors (CLAs) oversaw development of a given chapter and liaised with non-Federal Regional Chapter Leads or Federal or non-Federal National Chapter Leads in their development of individual chapters. The Federal CLAs also worked across chapters to ensure consistency throughout the report.
- Agency Chapter Leads oversaw the production of the National Topic and Response chapters and selected National Chapter Leads. Effort was made to distribute the responsibility across USGCRP agencies.
- Chapter Leads directed the development of individual chapters.
 - National Chapter Leads were either Federal or non-Federal experts who, in consultation with Federal CLAs, organized, directed, and led authorship of individual National Topic or Response chapters. Chapter Author teams were established by the National Chapter Leads,

- with suggestions from the Federal CLAs and the SC. Chapters were submitted to the corresponding Federal CLA, and ultimately transmitted to the SC, as the individual input of the National Chapter Leads.
- Regional Chapter Leads were non-Federal experts selected by the SC from a pool of experts put forward through a public nominations process. In consultation with Federal CLAs, Regional Chapter Leads organized, directed, and led authorship of individual regional chapters. Chapter Author teams were established by the Regional Chapter Leads, with suggestions from the Federal CLAs and the SC. Chapters were submitted to the corresponding Federal CLA, and ultimately transmitted to the SC, as the individual input of the Regional Chapter Leads.
 - Chapter Authors were selected by the Chapter Lead and responsible for developing chapter content. Chapter author teams worked with Regional or National Chapter Leads to develop and edit individual chapters in response to comments received during the multiple rounds of review.
 - Technical Contributors provided inputs into chapter development, but did not directly author sections of NCA4 Vol. II. They were selected on an as-needed basis, based on specific needs identified by the author team.
 - Review Editors were selected by the SC from a pool of experts put forward through a public nominations process. Their role was to ensure the authors adequately responded to all comments received during the public and National Academies review periods.

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Timeline

2016

Early 2016	Federal Steering Committee established
Summer	Public comment on draft Prospectus; Process guidance developed
Summer/Fall	Public call for technical inputs and author nominations (specifically, Regional Chapter Leads); Regional background webinars
Fall	Agency Leads, Federal CLAs, and Chapter Leads selected
Dec	Preliminary chapter outlines reviewed by Steering Committee
Winter	Chapter Authors selected by Chapter Leads

2017

Jan	Interagency review of revised chapter outlines (Zero Order Draft)
Early Spring	Regional Engagement Workshops and Public Engagement Webinars
Spring	First Order Drafts developed by Chapter Author teams
July/Aug	NOAA Technical Support Unit (TSU) edits First Order Drafts; authors revise in light of comments, resulting in Second Order Draft
Aug	Interagency review of Second Order Draft
Sept/Oct	Authors and TSU revise chapters, resulting in Third Order Draft
Nov 3	Release of Third Order Draft for Public Comment & review by an expert panel of the National Academies of Sciences, Engineering, and Medicine (NASEM)
Winter	Third Order Draft out for public and NASEM review

2018

Early 2018	Authors work with Review Editors to revise chapters, resulting in Fourth Order Draft
Spring/Summer	Interagency review and final Federal clearance
Summer/Fall	Final production and layout of report
Nov 2018	Public release of NCA4 Vol. II