

Climate Change Science Program

Guidelines for Producing CCSP Synthesis and Assessment Products

The CCSP Synthesis and Assessment Products

The U.S. Climate Change Science Program (CCSP) is producing synthesis and assessment products to support informed discussion and decision making regarding climate variability and change by policy makers, resource managers, stakeholders, the media, and the general public. The CCSP participating agencies are coordinating their work to produce these reports, which will integrate research results focused on identified science issues and related questions frequently raised by decision makers. These reports will provide current evaluations of the identified science foundation that can be used for informing public debate, policy development, and operational decisions, and for defining and setting the future direction and priorities of the program. The CCSP products will be considered Federal government disseminations, thus they must be prepared in conformance with the provisions of the Data Quality Act (Section 515 of the Treasury and General Government Appropriations Act of 2001). Any agency sponsoring or contributing to the development of a product must certify that the agency's contribution satisfies its Information Quality Guidelines.

Purpose of the Guidelines

The CCSP Strategic Plan sets forth general principles for its approach to preparing synthesis and assessment products:

- Analyses structured around specific questions
- Early and continuing involvement of stakeholders
- Explicit treatment of uncertainties
- Transparent public review of analysis questions, methods, and draft results
- Adoption of a "lessons learned" approach, building on the ongoing CCSP analyses.

The purpose of this document is to present guidelines that address the three steps in the process of preparing the synthesis and assessment products: developing the prospectus, drafting and revising the document, and final approval and publication of each product. The guidelines set forth the roles of participants and the steps in the process. The guidelines are intended to ensure that:

- Independent scientific judgment serves as the guiding force in preparing the products so they are credible
- Scientists, users, and other stakeholders jointly determine the scope of the products so the topics covered are well defined and the information provided is relevant to the needs expressed
- The process of preparing the products is open at every step so the products have legitimacy (i.e., are perceived to have been prepared fairly).

Participants and Their Roles

CCSP Interagency Committee

CCSP was established by the President in 2002 and integrates the U.S. Global Change Research Program and the Climate Change Research Initiative. The CCSP Interagency Committee provides executive direction for the Program, as described in Chapter 16, “Program Management and Review,” of the CCSP Strategic Plan. CCSP’s Interagency Committee is chaired by the CCSP Director (a Department of Commerce appointee) and includes representatives of 13 participating departments/agencies that have mission or funding responsibilities in climate and global change research, together with liaisons from the Executive Office of the President.¹ Membership on the CCSP Interagency Committee is joint with the Subcommittee on Global Change Research (SGCR) of the Committee on Environment and Natural Resources (CENR) of the President’s National Science and Technology Council (NSTC). The CCSP Interagency Committee has overall responsibility for direction of the program, including compliance with the requirements of the Global Change Research Act of 1990. With respect to the synthesis and assessment products, the CCSP Interagency Committee provides oversight for the process of preparing the products as described in these guidelines.

Lead Agency(ies)/Department(s)

One or more designated CCSP agency(ies) or department(s) will take the lead in producing each product. The lead agency(ies) will be responsible for developing an open and transparent process for soliciting user input, author nomination and selection, expert peer review and public comment, and production/release of the products, as described in these guidelines. To ensure that the products incorporate as much expertise as possible, the lead agency(ies) will be open to the participation of other individuals or entities with relevant expertise and information. The entities can include other government units (Federal or non-Federal), Interagency Working Groups of the CCSP or other Federal programs, international organizations and government units, non-governmental organizations (NGOs), and other groups.

¹ Participating departments and agencies include: Department of Agriculture (USDA), Department of Commerce / National Oceanic and Atmospheric Administration (DOC/NOAA), Department of Defense (DOD), Department of Energy (DOE), Department of Health and Human Services (HHS), Department of the Interior / U.S. Geological Survey (DOI/USGS), Department of State (DOS), Department of Transportation (DOT), Agency for International Development (USAID), Environmental Protection Agency (EPA), National Aeronautics and Space Administration (NASA), National Science Foundation (NSF), and Smithsonian Institution (SI). In addition, the Executive Office of the President and other related programs have designated liaisons who participate on the CCSP Interagency Committee: Office of Science and Technology Policy (OSTP), Council on Environmental Quality (CEQ), Office of Management and Budget (OMB), Climate Change Technology Program (CCTP), and Office of the Federal Coordinator for Meteorology (OFCM).

Lead and Contributing Authors

Lead and contributing authors of the synthesis and assessment products are scientists or individuals with recognized technical expertise appropriate to a product. Lead and contributing authors may be citizens of any country and be drawn from within or outside the Federal government (e.g., universities or other public or private sector organizations). These individuals shall be acknowledged experts, known through their publication record and relevant accomplishments and contributions to their field. Lead authors are responsible for the content of the synthesis and assessment products that are submitted to the CCSP Interagency Committee for review.

Interagency Working Groups

The CCSP Interagency Committee coordinates implementation of its activities in support of the Strategic Plan through Interagency Working Groups (IWGs) of program specialists of its participating departments and agencies, as described in Chapter 16, “Program Management and Review,” of the CCSP Strategic Plan. IWGs will contribute significantly to the preparation of the synthesis and assessment products because of their expertise in areas related to the products. IWGs may serve as a means for the lead agency(ies) to coordinate preparation of the products with supporting agencies. They may contribute to planning/preparing the prospectuses, scoping, drafting, reviewing, publishing, or disseminating the final product.

Expert Reviewers

Expert reviewers are scientists or individuals with other special expertise appropriate to a product. The expert reviewers will be selected by the lead agency(ies)/departments. As is the case for lead and contributing authors, reviewers may be citizens of any country and be drawn from within or outside the Federal government (e.g., universities or other public or private sector organizations). These individuals shall be known through their publications and other forms of recognition of their expertise. Expert reviewers will focus on the scientific/technical content of the draft. Employees of the lead agency(ies), lead authors, and other contributors to the product may not serve as expert reviewers for that product. The expert reviewers will be designated through a process described in the prospectus.

Stakeholders

Stakeholders are defined as they are in Chapter 11 of the CCSP Strategic Plan—that is, “Stakeholders are individuals or groups whose interests (financial, cultural, value-based, or other) are affected by climate variability, climate change, or options for adapting to or mitigating these phenomena.”² Stakeholders participate during the scoping process by providing information that helps define the audience and potential uses of a product. In addition, stakeholders provide comments on the prospectus, and on the product during the

² See Box 11-1 (“Working Definitions”), page 112 of the CCSP Strategic Plan.

public comment period. These comments are expected to focus on how well the product serves its intended purpose or use.

National Research Council

The National Academy of Sciences / National Research Council (NRC) will provide advice on an as-needed basis to the lead agency(ies). In the event that issues are identified that require further clarification, the NRC may be asked to provide additional scientific analyses to help bound the uncertainty associated with these issues.

National Science and Technology Council

The National Science and Technology Council (NSTC) will be responsible for final review and approval of the synthesis and assessment products. Products not cleared by NSTC cannot be released as disseminations of the Federal government. Consistent with NSTC procedures, approvals will require written concurrence from all members of the NSTC's Committee on Environment and Natural Resources (CENR). All comments generated through the NSTC review will be addressed by the CCSP Interagency Committee. The CENR membership includes senior officials representing the Executive Office of the President and the 15 federal agencies with significant responsibilities for environment and natural resources programs.

Steps of the Process

Planning the Process and Preparing a Prospectus

1. The lead agency(ies) solicit input from users and other stakeholders, plan preparation of the product, and summarize the proposed process in a draft prospectus. The draft prospectus will address the topics listed in the subsequent section of this document.
2. The CCSP Interagency Committee reviews and approves the draft prospectus for public comment.
3. Expert reviewers and stakeholders review the draft prospectus. The prospectus comment period will last at least 30 days. The draft prospectus comment period will be announced in a Federal Register Notice (FRN) and posted on the CCSP web site.
4. The lead agency(ies) revise the draft prospectus and finalize author recommendations, taking into consideration the comments received.
5. The CCSP Interagency Committee approves the revised prospectus and the lead agency(ies) notify the lead authors.
6. The CCSP Office posts the draft prospectus comments and the final prospectus on the CCSP web site.

Additional Stakeholder Interactions, if Needed

7. Lead authors may solicit additional input from users and other stakeholders to assist in the development of the product. The process for soliciting this additional input will be open and described in the prospectus. Approaches include workshops, user

surveys, telephone and email conferences, and other mechanisms. The processes used will reflect the expected end use of the product. The CCSP Strategic Plan identifies three end uses for CCSP synthesis and assessment products: 1) informing the evolution of the research agenda; 2) supporting adaptive management and planning; and 3) supporting policy formulation. The products with end uses primarily oriented toward the second and third categories are expected to require significant additional input from users to develop a clear understanding of information needs, timing of decisions, consideration of how uncertainty affects decision making, and other issues. The results from additional stakeholder interactions will be publicly available in summary or more extensive forms through publication on the CCSP web site.

Drafting/Reviewing the Products

8. Lead authors prepare the first draft, including a technical section and a summary for interested non-specialists.
9. The lead agency(ies) organize and facilitate an expert peer review of the first draft according to process described in the prospectus. The expert peer review will precede the public comment period to ensure that the products are shaped by scientific considerations. The expert peer review process may range from that used in a scientific journal to a formal review panel convened by the lead agency or recognized external groups such as the National Research Council. Participants must be qualified scientific/technical experts, as demonstrated by their record of scholarly publication and other accomplishments. Employees of the lead agency(ies), lead authors, and other contributors to the product may not serve as expert reviewers for that product. The prospectus will describe the process for selecting expert reviewers and the expected dates of the review. If the expert peer review is open to all qualified experts, notice will be disseminated on the CCSP web site and through relevant scientific publications, web sites, and other means. All comments submitted during the expert peer review will be publicly available without attribution to the reviewer unless reviewers agree in advance to posting with specific attribution.
10. Lead authors prepare the second draft of the product, taking into consideration the expert peer review comments. The scientific judgment of the lead authors will determine responses to the comments. The authors will acknowledge significant contributions made by expert reviewers, as applicable.
11. The lead agency(ies) post the second draft of the product for public comment for not less than 45 days. Any stakeholders (plus experts who participated in the expert peer review process) may participate in the public comment period for the second draft. This includes governmental and non-governmental entities. The prospectus will include the expected dates of the public comment period. Notice of the public comment period will be disseminated on the CCSP web site, in the Federal Register, and through other publications, web sites, and means as appropriate to the product, to encourage wide public participation in the review. All comments will be publicly available.
12. The lead authors will prepare a third draft of the product, taking into consideration the comments submitted during the public comment period. The scientific judgment of the lead authors will determine responses to the comments.

Approving, Producing, and Releasing the Products

13. Lead agency(ies) submit the third draft of the product and a compilation of comments received to the CCSP Interagency Committee.
14. If the CCSP Interagency Committee review determines that no further action is needed and that the product has been prepared in conformance with these guidelines and the Data Quality Act (including ensuring objectivity, utility, and integrity as defined in 67 FR 8452), they will submit the product to NSTC for approval. If the CCSP Interagency Committee determines that further revision is necessary, their comments will be sent to the lead agency(ies) for consideration and resolution by lead authors.
15. If needed, NRC can be asked to provide additional scientific analysis to bound scientific uncertainty associated with specific issues.
16. Once the CCSP Interagency Committee has determined that the synthesis and assessment report has been prepared in conformance with these guidelines and the Data Quality Act, the Committee will submit it to NSTC for final review and approval. Approval will require the concurrence of all members of the Committee on Environment and Natural Resources. Comments generated during the NSTC review will be addressed by the CCSP Interagency Committee.
17. Once NSTC approval has been obtained and the product is finalized, the lead agency(ies) will produce and release the completed product using a standard format for all CCSP synthesis and assessment products. The final product and the comments received during the expert review and the public comment period will be posted, without attribution (unless specific reviewers agree to attribution), on the CCSP web site.
18. The product will be widely disseminated through the CCSP web site and other mechanisms.

Contents of the Prospectus

The proposed process for preparing each CCSP synthesis and assessment product will be summarized in a prospectus that will be publicly available. The prospectus for each product will typically be 5-10 pages in length (plus appendices with references and biographical information for proposed lead authors) and will address the following points:

- Overview: description of topic, audience, intended use, questions to be addressed, etc.
- Contact information: email and telephone for responsible individuals at the lead and supporting agencies
- Lead authors: required expertise of lead authors and biographical information for proposed lead authors
- Stakeholder interactions: process already used to solicit input from users and other stakeholders, or proposed plans for doing so, including information for those interested in participating in this process
- Drafting: materials to be used in preparing the product

- Review: the processes through which the product will receive expert peer review and public comment, including the process for selecting expert reviewers and the scheduled dates for the expert peer review and public comment periods
- Related activities: description of how preparation of the product will be coordinated with related activities, including other national or international assessment processes (e.g., the Intergovernmental Panel on Climate Change)
- Communications: proposed method of publication and dissemination of the product
- Proposed timeline.

Materials to be Used

Authors will use the published, peer-reviewed scientific literature in drafting the products. In the rare case that any materials used in preparing a product are not already published in the peer-reviewed literature, the lead agency(ies) must get approval from the CCSP Interagency Committee and these materials must be made available by the lead agency(ies) and/or CCSP Office. The use of any such non-peer-reviewed materials may be questioned by reviewers during the expert review or public comment period. Authors should seek to publish any materials used in preparing drafts of the products.

Characteristics of the Products

The products will identify disparate views that have significant scientific or technical support. They will also provide confidence levels for key findings, if this is appropriate to the product.