

**NCADAC Sustained Assessments Workgroup White Paper on  
SUSTAINED ASSESSMENTS  
11-17-2011 version**

**Rationale**—The strategic vision for the National Climate Assessment (NCA or Assessment) includes a commitment to a long-term, consistent, and ongoing process for evaluation of climate risks and opportunities that will inform decision-making processes within regions and sectors. An essential component of this process is to establish sustained assessment capacity both inside and outside of the Federal Government that draws on and sustains the work of stakeholders and scientists across the country. The process also will focus on a continuous evaluation of the current state of scientific knowledge relative to climate impacts and trends, on supporting the Nation’s activities in adaptation and mitigation, and on improving the use of models and tools. The benefits include increased efficiency and leveraging of existing federal science investments, deeper stakeholder involvement, a more effective knowledge base for adaptation and mitigation decision support, and a way to inform science priorities over time.

**Goal**—Guide the establishment of permanent, broad-based and inclusive assessment capacity to evaluate on a continuous basis the current state of scientific knowledge of climate science, climate impacts, and trends and to develop, share, and deploy information that supports assessment, adaptation, and mitigation activities.

**Context**—The charter for the NCA federal advisory committee (the NCADAC) requires that the Committee provide advice about how to build and sustain the Assessment process. This is expected to be included in a chapter of the 2013 synthesis report that is currently titled “The NCA Long-Term Process – Vision and Future Deliverables.”

**Components of a Sustained Assessment**—The following list of components provides a structure for framing the types of activities and products that a sustained assessment process potentially can encompass. In addition, they can be viewed as one way of categorizing information within the sustained assessment (The NCA Long-Term Process – Vision and Future Deliverables) chapter for the 2013 Assessment Report.

**Achieve Scientific Integration**—Demand, integrate, analyze, and evaluate emerging scientific understanding of the integrated Earth system and its implications, including integration of natural and social sciences, and identify critical gaps and limitations in scientific understanding.

- Conduct ongoing evaluations of the science produced by the USGCRP agencies, enhanced by knowledge gained through regional and sectoral assessments and network partners, to identify critical integration opportunities and data gaps.
- Track and integrate results from periodic assessments of the Intergovernmental Panel on Climate Change and other international sources of scientific information.
- Track and integrate results from major research initiatives such as the Coupled Model Intercomparison Project, Phase 5 (CMIP5) and future efforts of this type.
- Respond to user-defined science needs.

**Foster Partnerships and Engagement**—Ensure broad, sustained participation of stakeholders across regions and sectors. Foster enhanced engagement between the public and private sectors.

- Develop and sustain a network of regional and sectoral partner organizations outside the government who are both users and producers of Assessment information.
- As appropriate, incorporate those organizations that have submitted an expression of interest relative to the sustained Assessment as part of the above network.
- Ensure that Assessment activities meet and exceed expectations of partners but do not over-promise what is possible.
- Develop and maintain a sophisticated two-way engagement strategy to communicate with stakeholders in regions and sectors on an ongoing basis.

**Build Ongoing Capacity**—Strengthen and evolve ongoing capacity to conduct assessments with accessible, transparent, and consistent processes.

- Develop, document, and provide training on methodologies that can be used by Assessment partners to ensure consistency in procedures used to measure change over time in a distributed process.
- Evaluate progress relative to Assessment objectives on an ongoing basis and incorporate improvements in Assessment processes over time.
- Integrate ongoing adaptation science and adaptation support, planning, and clearinghouse activities, including federal activities undertaken pursuant to Executive Order 13514, with the sustained Assessment process.
- Focus the efforts of the NCADAC, the federal agencies, and network partners on building a robust infrastructure to support ongoing assessment activities and on producing reports and web products that are widely respected and useful.

**Inform Responses**—Inform responses to global change (both mitigation and adaptation) with accurate, authoritative, and timely information that is accessible to multiple audiences in multiple formats. This includes responding to all levels of stakeholders, from Congress to senior federal officials to local communities.

- Establish a workplan and update it on a regular basis to identify the priority topical and synthesis reports that will be prepared over time, assign responsibilities, and establish timelines for preparation and completion. The anticipated future products will include updates on regional and sectoral assessment activities as well as reports on the progress of the national indicators system and the Global Change Information System. In addition, future reports are likely to include:
  - Focused biogeographical assessments, such as for the Arctic, high-altitude regions, arid regions, and specific major watersheds, that leverage other work in a timely manner and address critical nationally relevant assessment needs.
  - Development of Assessment-related tools, including periodic updating of authoritative climate, environmental, and socioeconomic scenarios and outlooks at different spatial scales that can be used for vulnerability and impact assessments, as well as development of vulnerability and impact assessment methods and tools.
  - Development of guidance on the appropriate use of, for example: (1) downscaling for providing relevant and defensible climate information, (2) approaches for addressing uncertainty, (3) environmental/biophysical process models, and (4) impact, adaptation, and vulnerability models.
  - A focus on the international context for the Assessment.

**Enhance Information Access**—Develop and maintain a web-based Assessment information storage, access, and retrieval system that facilitates easy access to actionable information for those

that need it and provides up-to-date information on a continuous basis. A major short-term objective is to provide transparent and highly linked access to the data used to support conclusions in the 2013 report, but this is only the first step in a much larger effort. The information system is intended to support a broader global change information system that serves agencies outside of UGCRP as well as USGCRP agencies.

- Increase the utility of information through interfaces, synthetic products, and other tools that facilitate use, analysis, synthesis, and transparency of data generated by the Assessment itself as well as data used by Assessment teams to come to conclusions in reports.
- Increase access to real-time data and updated web-based information more generally, through improvements in interoperability, interface systems, and web-based information architecture.

**Establish Indicators**—Build or leverage existing data, observations, model output, and indicator network/systems to obtain information on the status and trends of global change impacts and vulnerabilities, including the capacity of the nation to respond and adapt to such changes.

- Develop a relatively small set of integrated ecological, physical, and societal indicators/metrics that will help the nation better understand changes in natural and social systems in response to global change.

**Evaluate Progress**—Ensure ongoing evaluation of assessment processes and products, using specific criteria for determining success, and incorporate the findings into an adaptive response for systemic improvement.

- Develop process metrics that track the ongoing capacity of the Assessment to provide needed information and products to meet end user and policy maker needs.
- Develop outcomes metrics that assess the utility of products and other types of Assessment services relative to meeting strategic objectives.
- Periodically use process and outcomes metrics and other tools to evaluate assessment processes and products and make adjustments as needed.

**Ensure Adequate Capacity and Resources**—Ensure central coordination functions for the Assessment are adequately resourced to facilitate ongoing progress and timely production of assessment products. Ensure adequate scientific and non-scientific capacity at multiple levels, from local to regional, to support on-going processes and activities. The sustained Assessment process must:

- Ensure that expectations for ongoing agency support are clear and to the extent possible aligned with agency missions and Assessment needs.
- Ensure some continuity of staffing to promote development of institutional memory.
- Maintain accessible and well documented records of Assessment activities, partners, stakeholder efforts, and resources.
- Develop the business case and scientific community engagement rationale for the sustained assessment.

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***Role of the Sustained Assessments Workgroup***—Two roles can be envisioned for this workgroup: (1) working with the other assessment teams (technical input teams, workgroups, and author teams) to develop potential material to populate the sustained assessment (The NCA Long-Term Process – Vision and Future Deliverables) chapter for the 2013 Assessment Report and (2) assisting the

NCADAC, INCATF/WG, and NCA staff in developing options and criteria for selecting ongoing priorities of the sustained assessment. Both of these roles are outlined in more detail below.

**Chapter I: The NCA Long-Term Process – Vision and Future Deliverables**—Develop content for this chapter by following these steps:

1. Identify and recruit the other members of the Sustained Assessments Workgroup (by October 28, 2011). Hold initial workgroup meeting November 15, 2011.
2. Provide guidance to the applicable Assessment teams as to how to provide input to the chapter (by November 15, 2011).
3. Periodically vet with the full NCADAC the vision for this chapter and progress towards gathering information (initially accomplish at the November 16–17, 2011 NCDAC meeting).
4. Establish an author team to collate the input and write the chapter (by November 15, 2011). Author team members likely will be a subset of Workgroup members.
5. Coordinate with critical workgroups: Engagement, Communications and Evaluation; Indicators; Scenarios; Agenda for Climate Science; and Climate Change Science using the Convening Lead Author meeting, January 16-18, 2012, as one opportunity.
6. Author team collates information and drafts the chapter (gather all information by March 1, 2012 and produce draft chapter by April 30, 2012). An initial set of priority activities that can be accomplished before emphasis shifts to development of the 2017 Assessment Report and their estimated timeline for completion is anticipated to be an integral part of this chapter.
7. Submit review chapter no later than June 1, 2012.

**Develop a Workplan for the Sustained Assessment Process**—The sustained Assessment will be comprised of many components. In addition to the vision for the future activities, it will be essential to develop initial priorities and a timeline for their development and completion. Not everything can be accomplished at once, but even so a number of activities either have to be initiated or sustained while the 2013 Assessment Report is still in development. The following steps should be considered:

1. Work with the other members of the NCADAC, INCATF/WG, and NCA staff in developing options and criteria for selecting ongoing priorities of the sustained assessment (by March 1, 2012).
2. Identify those priorities that need to be sustained or initiated while the 2013 Assessment Report is still in development and assist the preceding entities in identifying roles and responsibilities for accomplishing these priorities (by May 31, 2012).
3. Based on the options and criteria developed in Step 1, the author team will identify draft initial priorities that will be accomplished subsequent to the 2013 Assessment and prior to the 2017 Assessment and incorporate them into The NCA Long-Term Process – Vision and Future Deliverables chapter of the 2013 Assessment Report (by April 30, 2012).
4. The author team will work with the members of the NCADAC, INCATF/WG, and NCA staff to finalize the activities, estimated timelines for completion, and roles and responsibilities, as well as any anticipated partnerships, for ensuring accomplishment for the final list of priorities and also respond to all public, agency, and NRC comment on the priorities. A work plan that provides details in regard to the preceding will be prepared in lieu of providing such detail in the 2013 Assessment Report (completed prior to the 2013 Assessment Report being submitted for final agency review).