# DECISION SUPPORT: INFORMATION TO SUPPORT POLICY DEVELOPMENT AND ADAPTIVE MANAGEMENT

CCSP sponsors and conducts research that is ultimately related to policy and adaptive management decisionmaking. CCSP's decision-support approach is guided by several general principles, including:

- · Early and continuing involvement of stakeholders
- Explicit treatment of uncertainties
- Transparent public review of analysis questions, methods, and draft results
- Evaluation of lessons learned from ongoing and prior decision-support and assessment activities.



### Synthesis and Assessment Products

CCSP is generating synthesis and assessment products that integrate research results focused on key issues and related questions frequently raised by decisionmakers. Current evaluations of the science can be used for informing public debate, policy development, and adaptive management decisions and for defining and setting the future direction and priorities of the program. The synthesis and assessment products constitute an important new form of topic-driven integration of U.S. global change assessment efforts. These CCSP products will be U.S. Government reports, subject to the provisions of the Information Quality Act (Section 515 of the Treasury and General Government Appropriations Act of 2001) and the Federal Advisory Committee Act Amendments of 1997 [P.L. 105-153, Sec. 2(A), (B), Dec. 17, 1997, 111 Stat. 2689].



The synthesis and assessment products are generated by researchers in a process that involves review by experts, public comment from stakeholders and the general public, and final approval by the departments/agencies involved in CCSP. Formal endorsement of the products by the Federal Government enhances their value for decisionmakers and the public at large. The program has prepared guidelines that describe steps to be followed in each of three phases of the preparation process: developing the prospectus, drafting and revising, and final approval and publication. This methodology for product development facilitates involvement of the research community and user groups in ensuring that the products are focused in a useful fashion and meet the highest standards of scientific excellence. The guidelines also encourage transparency by ensuring that public information about the status of the products will be provided through the Federal Register, on the CCSP web site, and other means throughout the review and clearance process. If further clarification of specific issues is required, the NRC will provide advice on an as-needed basis to the lead agency responsible for the preparation of each product.



The first two products generated through this process have been completed and several others are nearing completion. Up-to-date information on the status of all SAPs can be obtained from <a href="www.climatescience.gov/Library/sap">www.climatescience.gov/Library/sap</a>, including information on opportunities for public comment on draft products. A listing of each of the 21 synthesis and assessment products by CCSP goal is provided in Chapter 7 of this report.

## The U.S. Climate Change Science Program for FY 2008

### "Lessons Learned" in Decision Support and Assessment

To build on the experiences of earlier assessment activities, CCSP requested that the NRC carry out an analysis of global change assessments that have addressed topics

broadly similar to those encompassed by CCSP. The study, which was released in early 2007, included a comparative analysis of past assessments that address issues directly related to the science and technical issues of CCSP. The committee concluded that global change assessments are critical for informing decisionmakers. In identifying essential properties of a successful assessment it stressed that future assessment processes must communicate relevant information to the user, address the technical quality of the information, and demonstrate fairness and impartiality in the assessment process. The report identifies a number of essential elements that increase the probability that an assessment will effectively



inform decisionmakers and other target audiences. CCSP will take into account the findings of the NRC in its future assessment activities.

## OUTLINE OF RESEARCH ELEMENT ACTIVITIES

The CCSP-participating agencies coordinate scientific research through a set of linked interdisciplinary research elements and cross-cutting activities that encompass a wide range of interconnected issues of climate and global change. Chapters 3 to 15 of the CCSP Strategic Plan contain more detailed discussions of the research elements as well as activities that cut across all areas of the program. This report focuses on highlights of recent research and program plans for FY 2008.



Atmospheric Composition. The composition of the atmosphere at global and regional scales influences climate, air quality, stratospheric ozone, and precipitation, which in turn affect human health and the vitality of ecosystems. Research and observational activities coordinated and supported by CCSP are being used to assess how human activities and natural processes affect atmospheric composition, and how that understanding may be used to inform decisionmaking in the United States and abroad. In FY 2008, emphasis will be given to studies of interactions between aerosols and non-CO<sub>2</sub> gases, enhanced measurements of atmospheric water vapor, and interactions of pollutants with climate change. Special emphasis will be given to the climate impacts of pollutants associated with aviation.

See CCSP Strategic Plan Chapter 3.