

OVERVIEW OF CCSP GOALS 4 AND 5: SENSITIVITY/ADAPTABILITY AND USES OF CLIMATE INFORMATION

**Thomas J. Wilbanks
Oak Ridge National Laboratory**

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In This Overview, I Will:

- **Summarize CCSP Goals 4 and 5**
- **List the synthesis and assessment products that are under way in connection with each goal, several of which will be described further in this session**
- **Comment very briefly on how these assessment activities relate to others under way nationally and internationally, several of which will also be described later in this session**



CCSP GOAL 4:

**Concerned With the So What Aspects of
Climate Change Science, The Goal Is
To:**

*Understand the sensitivity and adaptability of
different natural and managed ecosystems and
human systems to climate and related global*

Research focus areas are: *changes*

- Improving knowledge of the sensitivity of ecosystems and economic sectors to global climate variability and change
- Identifying and providing scientific inputs for evaluating adaptation options, in cooperation with mission-oriented agencies and other resource managers
- Improving understanding of how changes in ecosystems and human infrastructure interact over long periods of time



CCSP GOAL 5:

Concerned With the What Do We Do Aspects of Climate Change Science, The Goal Is To:

*Explore the uses and identify the limits of evolving
knowledge to manage risks and opportunities related
to climate variability and change*

Decision support goals are:

- To prepare scientific syntheses and assessments to support informed discussion of climate variability and change issues by decisionmakers, stakeholders, the media, and the general public
- To develop resources to support adaptive management and planning for responding to climate variability and climate change, and transition these resources from research to operational application
- To develop and evaluate methods (scenario evaluations, integrated analyses, and alternative analytical approaches) to support climate change policymaking and demonstrate these methods with case studies

These goals are associated with equivalent research focus areas



Synthesis and Assessment Products,

Goal 4:

Understand the sensitivity and adaptability of different natural and managed ecosystems and human systems to climate and related global changes

- 4.1** *Coastal elevation and sensitivity to sea level rise: EPA (3/2007)*
- 4.2** *State-of-knowledge of thresholds of change that could lead to discontinuities (sudden changes) in some ecosystems and climate-sensitive resources: USGS (4/2007)*
- 4.3** *Analyses of the effects of global change on agriculture, biodiversity, land, and water resources: USDA (4/2007)*
- 4.4** *Preliminary review of adaptation options for climate sensitive ecosystems and resources: EPA (4/2007)*
- 4.5** *Analyses of the effects of global change on energy production and use: DOE (3/2007)*
- 4.6** *Analyses of the effects of global change on human health and welfare and human systems: EPA (4/2007)*
- 4.7** *Within the transportation sector, a summary of climate change and variability sensitivities, potential impacts, and response options: DOT (4/2007)*



Synthesis and Assessment Products,

Goal 5:

Explore the uses and identify the limits of evolving knowledge to manage risks and opportunities related to climate variability and change

- 5.1** *Uses of observations, data, forecasts, and other projections in decision support for selected sectors and regions: NASA (4/006)*
- 5.2** *Best-practice approaches to characterize, communicate, and incorporate scientific uncertainty in decision-making: (CCSP (3/2006)*
- 5.3** *Decision support experiments and evaluations using seasonal to interannual forecasts and observational data: NOAA (4/2007): USDA (4/2007)*



Viewing These Assessment Activities In a Larger Context (I)

- **CCSP synthesis and assessment products are contributions to a larger body of climate change science related assessments and decision support efforts, e.g.,:**
 - ❖ **Within the U.S.:**
 - **Historically, the U.S. National Assessment of Possible Consequences of Climate Variability and Change**
 - **Currently, the North American Carbon Program and the Integrated Earth Observation System strategic plan**



Viewing These Assessment Activities In a Larger Context (II)

❖ Internationally:

- The assessment reports, special reports, and other publications of the Intergovernmental Panel on Climate Change (IPCC)
 - The assessment reports of the Millennium Ecosystem Assessment
 - The Arctic Climate Impact Assessment (ACIA)
- CCSP synthesis and assessment products draw from the same knowledge bases and U.S. professional communities as these and other assessments:

For specific purposes related to U.S. climate change science program strategies and resource management decisions: to clarify knowledge gaps in the domains of climate change science, to identify priorities for observation and research, and to strengthen decision support related to climate science