

REPORT

Climate Change Science Program Listening Session

At

The Fall Meeting of the American Geophysical Union (AGU)

San Francisco, CA

December 18, 2008

U.S. Climate Change Science Program Office
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Washington, DC 20006

Introduction

On December 18, 2008, the Climate Change Science Program (CCSP) convened a listening session at the Fall Meeting of the American Geophysical Union (AGU) in San Francisco, CA. The meeting took place from 7:30PM to 8:30PM in room 2006 within the Moscone Convention Center-West and was open to all participants attending the AGU meeting. Jack Kaye (NASA) presented a short overview of the CCSP and the importance of the listening sessions in helping to guide future climate research efforts within the Federal Government. Comments were then solicited from the attending audience. In order to help guide (but not limit) the discussion, several questions related to climate change scientific research were presented including:

- What are the biggest research gaps?
- What are the greatest observational/measurement needs?
- What are the greatest unmet modeling opportunities?
- How can information be managed/communicated by the Federal program?
- What approaches should be modified/pursued to more effectively link research to decision making and the public interest (e.g., international, national, and regional assessments, routine provision of useful information through a National Climate Service, decision-support research)?
- What are the procedural/structural issues that should be considered when defining a Federal climate program?

The meeting was attended by a wide spectrum of Academic and National Laboratory scientists, Federal Agency researchers and representatives, water utility representatives, and interested members of the general public. Peter Schultz (CCSP) facilitated the commentary during the meeting while Todd Anderson (DOE) recorded notes for the session.

Commentary

The comments listed below are not exact quotes from individual participants at the listening session but rather have been compiled to capture the main points of the discussion. Much of the commentary centered on the current configuration of climate science programs within the Federal government and whether the current structure can provide the kind of decision support information needed by stakeholders and local communities for planning purposes to manage climate change issues. Individual anonymous comments from participants in attendance are listed below.

○ Structure of Federal climate science programs

A total of 13 separate agencies conduct Climate-related science within Federal government. Several members of the audience expressed strong reservations about the

prospect of efficient scientific coordination among such a diverse group of programs. Many audience participants were of the opinion that urgent action on climate issues is needed and did not think the current structure of Federal climate science programs could effectively deliver crucial information needed to address climate change in a timely manner.

- CCSP Structure

The structure of the CCSP is too complex and difficult to comprehend. Some participants expressed that it is near impossible to grasp the full scope of the program (not really a program but a collection of programs). The overall program needs to be streamlined and organized in way that makes sense. Strong leadership is required to ensure an efficient use of public funds and for communicating research results and recommendations to stakeholders. The CCSP has no action plan for climate issues. What are we to do about climate change? There is little communication on overall research plans within the CCSP and many stakeholders seem left out of the discussions. More openness is needed within the CCSP.

- Decision matrices for other Federal agencies and local communities

Audience members suggested that Federal climate science programs should develop decision matrices for use by State and local agencies to guide public decision-making. The wealth of information provided within Federal climate science programs should be synthesized into specific decision matrices that can be used as reference material by local communities for public planning purposes when addressing issues of climate change.

- Strong statement of urgent action

Participants strongly urged the CCSP to state publically and unequivocally that urgent action on climate change is needed immediately and to endorse a plan of action to address the problem(s) now.

- Strong leadership needed

Federal climate science programs should be led by a single, strong leader with a broad, holistic vision (e.g., the President's Science Advisor) or perhaps a committee of active scientists, who might also help to guide climate mitigation initiatives for the Nation. Ultimately the President is responsible for action on climate change issues and there should be a mechanism for competent scientists and advisors to communicate crucial information to the highest levels of government. A new structure for climate science is needed that should be headed by a single person.

- Climate science funding

Much of the funding available to climate researchers is provided in 3-year, short(er) term awards. This approach is incompatible with climate observations that need to extend across longer time periods (decadal time periods or longer). There is a distinct disconnect between funding time scales and the time scales of crucial climate observations. Long term data collection and analysis requires long term funding support.

- Dissemination of CCSP reports

CCSP has produced 21 reports on various climate change science topics. There is a perception that these materials are not readily available to State and local governments in a form useful for public planning purposes. Local stakeholders remain largely disconnected from climate science information generated within the CCSP. Better communication with stakeholders and local communities is needed.

- Better communication and dissemination of information

CCSP efforts need to restructure from largely “assessment” science towards “decision-support” science. Several audience members commented on the public planning needs of State and local governments and the information needed to implement climate-change/mitigation decisions over the next decade. Global scale science should be linked with regional and local scale tools for decision makers. CCSP efforts should lead to development of decision tools/matrices for use by State and local governments to make science-based decisions.

- Data links provided on the CCSP website

Several audience members commented that obtaining access to climate data is difficult and could be greatly facilitated by the CCSP by simply posting weblinks for information/data sources on the CCSP website.

- Synthesis of scientific results to date

CCSP should issue a synthesis document that summarizes the results of the 21 reports already issued. Audience members indicated that a synthesis document would be quite helpful in communicating what exactly is known about anthropogenic impacts on climate change and what could happen if steps are not taken to mitigate GHG emissions. P. Schultz and J. Kaye did mention to the audience that a synthesis document is in preparation by CCSP and a link to the URL could be provided to all listening session participants.

- Sustainable population modeling

The human population on planet Earth is simply too big and we can now measure the impact that human beings have on the global environment. An audience member brought up the need for investigating what the optimal human population ought to be in order for human beings to live on Earth in a sustainable manner. Human beings, due to sheer numbers, are introducing more than just greenhouse gases to the environment and it is time to start asking questions about the relationship between human population size and environmental impact. How many human beings can Earth sustainably support?

- Broader involvement in CCSP issues

Since decisions to mitigate GHG-induced climate change will likely impact society in many consequential ways, one audience member suggested that demographers, sociologists and public policy experts be included up front in CCSP discussions/decisions. The impacts of climate related decisions need to be discussed in the context of the potential impacts on society.

- Critical long term data needs

CCSP should provide a prioritized list of critical, long term data needs that will require long term support spanning multiple administrations. A “top ten” list of critical, long term data needs would be helpful to communicate to government and the public the importance and necessity of supporting long term climate change science.

- Education

More climate science needs to be introduced into the public discourse. In order to make sound decisions for the future, there needs to be some emphasis on increasing the climate science literacy at all levels within the general public. An informed public will be in a better position to demand action from politicians on climate issues.

- CCSP posting

Some audience members congratulated the CCSP for the information that is posted on the CCSP website.

- Decadal climate studies

Researchers participating in the listening session repeatedly expressed the need for longer term research funding on decadal timescales. Long term support is needed to develop the next generation of instrumental equipment, validate climate models, incorporate uncertainty estimates into model predictions and to develop a robust climate science program that can be geared towards providing regional scale assessments. Currently regional scale modeling is in its infancy and requires continued long term support of global scale research in order to provide the information necessary to develop regional scale models. The Nation will need a climate science program that is oriented towards providing useful models (with uncertainty) and decisions matrices to local communities for decision-making purposes.