

## **The US Global Change Research Act of 1990 and the Climate Change Science Program**

trend analysis vs. synthetic assessment in scientific decision support

As a mandate of the US Global Change Research Act of 1990, the US Global Change Research Program was established, with the stated purpose of improving understanding of global change<sup>1</sup>. Critical to this task were annual reports describing the achievements of the previous year, with analysis and recommendations for reaching the goals of this plan, and a scientific assessment at least every four years, to<sup>2</sup>:

1. integrate, evaluate, and interpret the findings of the USGCRP and discuss the scientific uncertainties associated with such findings;
2. analyze the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
3. analyzes current trends in global change, both human- induced and natural, and projects major trends for the subsequent 25 to 100 years.

After functioning in this capacity for 11 years, the structure of the USGCRP was reorganized into the Climate Change Science Program (along with the Climate Change Research Initiative and the Climate Change Technology Program), with the stated mission to facilitate the creation and application of knowledge of the Earth's global environment through research, observations, decision support, and communication<sup>3</sup>. Rather than continue with the retrospective and forward-looking assessment reports, the deliverable of the CCSP was transformed into a series of twenty-one synthesis and assessment products. With this change, the mission of the organization shifted from the role of providing periodic assessment and recommendations to a collection of the best known information regarding a given aspect of climate change science and policy.

The new role and structure of the CCSP has dramatically altered the science-policy interface and the ability of this organization to address the changing vulnerability and resilience of the United States government to deal with the risks and needs associated with the effects of the changing earth systems.

The goal of this VARIP case study is to attempt to characterize this science-policy interface and to chronicle the changes in adaptive capacity in the shift in focus from the periodic evaluation mandated by the Climate Change Research Act to the synthesis products undertaken by the CCSP working groups. Through documentary analysis of reports generated by the USGCRP and CCSP, as well as interviews with researchers and administrators associated with the projects, this case study will specifically investigate the analysis of vulnerability and resilience within the CCSP assessment reports, and to identify how these decision-support resources enter the process of decision-making. This study will also consider the degree to which analytical reports (such as *The National Assessment*) generated prior to the creation of the CCSP are or will be used in the process of generating the new synthesis and assessment products. Critical to this investigation will be a comparison of structure and function of the current CCSP with similar science-policy interfaces at regional and international scale.

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1 U.S. Global Change Research Act of 1990, Public Law 101-606, Section 103, <http://www.gcrio.org/gcact1990.html>

2 *ibid*, Section 106

3 *Our Changing Planet* 2006, published by the Climate Change Science Program