



## Understanding the Threat of Global Climate Change

### *The U.S. Global Change Research Program in the 2014 Budget*

**The 2014 Budget reflects the President’s commitment to global-change research** by sustaining coordinated, government-wide efforts on research to understand, predict, mitigate, and adapt to global change, including climate change, and to inform the Nation’s transition to a clean-energy economy. Investments in global-change science through the U.S. Global Change Research Program (USGCRP) over the past several decades have significantly expanded our knowledge of Earth’s past and present climate, enhanced our ability to project future climate change, and improved our understanding of the impacts and risks associated with climate change. Building on this solid scientific foundation, the USGCRP will continue to fulfill its Congressional mandate by strengthening its focus on providing practical scientific information, tools, and data to decision makers and resource managers. **The 2014 Budget provides \$2.7 billion for the 13-agency USGCRP, an increase of 6.0 percent over the 2012 enacted level** (see Table). (All comparisons between 2012 appropriations and the 2014 Budget are in current, not-adjusted-for-inflation dollars. Figure 1 shows historical trends in inflation-adjusted dollars.)

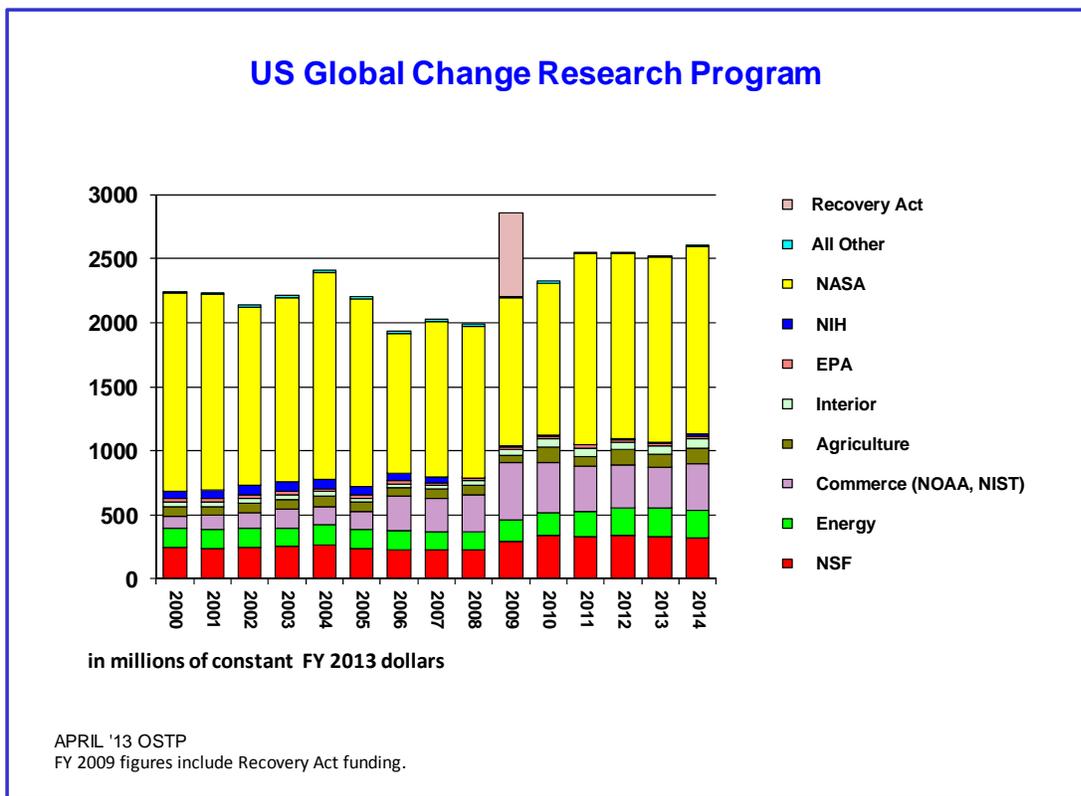


Figure 1.

Over the past four years, the Obama Administration has revitalized and strengthened the USGCRP (see Figure 1). The 2014 Budget increases USGCRP funding while emphasizing interagency coordination to improve the program’s overall performance and ensure that important Federal investments in global-

change research are efficient and non-duplicative. All increases are part of a 2014 Budget that, consistent with the Budget Control Act of 2011, reduces projected deficits while making investments needed to enhance coordination, increase effectiveness, and build a sustainable future.

The USGCRP was mandated by Congress in the Global Change Research Act of 1990 (P.L. 101-606) to “understand, assess, predict, and respond to human-induced and natural processes of global change.” This has included expanding global observing systems; developing enhanced predictive capabilities; creating science-based resources to support policymaking and resource management; and communicating findings broadly among scientific and stakeholder communities. Thirteen Federal departments and agencies participate cooperatively in the USGCRP with a unified vision for a “Nation globally engaged and guided by science to meet the challenges of global change.”

The 2014 Budget supports the four goals set forth in USGCRP’s 2012-2021 strategic plan: (1) **Advance Science** - advance scientific knowledge of the integrated natural and human components of the Earth system; (2) **Inform Decisions** - provide the scientific basis to inform and enable timely decisions on adaptation and mitigation; (3) **Conduct Sustained Assessments** - build sustained assessment capacity that improves the United States’ ability to understand, anticipate, and respond to global-change impacts and vulnerabilities; and (4) **Communicate and Educate** - advance communications and education to broaden public understanding of global change. In FY 2014, USGCRP agencies will emphasize research activities that advance our understanding of vulnerabilities in human and natural systems and their relationships to climate extremes, thresholds, and tipping points. Specific areas of focus will include: promoting new and maintaining existing observations to detect trends in climate extremes; integrating Earth observations into predictive climate models and climate simulations at spatial and temporal scales needed for decision making (including enhancing and making more effective use of supercomputing capabilities); conducting research to build capacity for attribution of global change to human or natural causes; and deploying research findings and outputs from the National Climate Assessment through a Global Change Information System that is accessible and relevant to multiple end-users. USGCRP reports and general information about the Program are available on the program’s website, [www.globalchange.gov](http://www.globalchange.gov).

**Table. U.S. Global Change Research Program**  
(discretionary budget authority in millions)

	FY 2012 Actual	FY 2014 Budget	Change FY 12-14	
			Amount	Percent
<b>U.S. Global Change Research Program (USGCRP)</b>				
National Science Foundation	333	<b>326</b>	-7	-2.1%
Energy	212	<b>220</b>	8	3.9%
Commerce (NOAA, NIST)	327	<b>371</b>	45	13.8%
Agriculture	115	<b>126</b>	11	9.8%
Interior (USGS)	59	<b>72</b>	13	22.2%
Environ. Protection Agency	18	<b>20</b>	2	11.1%
National Institutes of Health	6	<b>15</b>	9	150.0%
NASA	1,422	<b>1,493</b>	71	5.0%
Smithsonian	8	<b>8</b>	0	0.0%
DOT	1	<b>1</b>	0	0.0%
<b>Total USGCRP</b>	<b>2,501</b>	<b>2,652</b>	151	6.0%