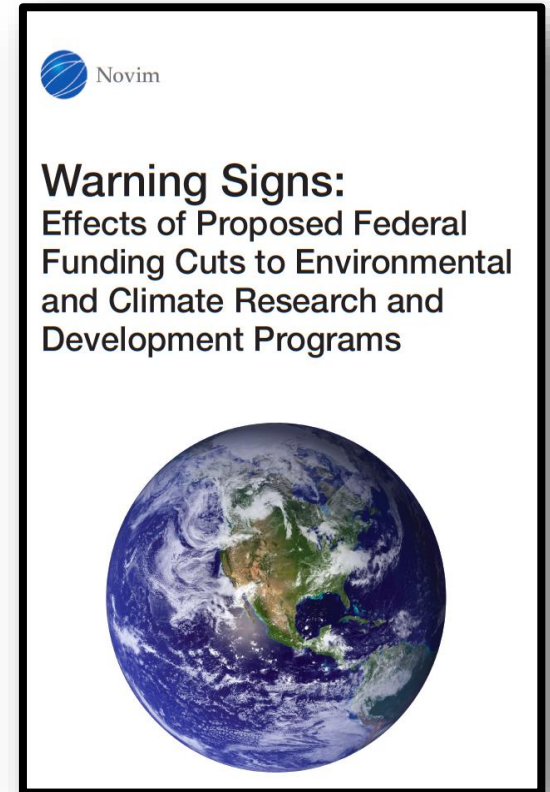


novim.org/budget

***Warning Signs:**
Effects of Proposed
Federal Funding Cuts
to Environmental and
Climate Research and
Development
Programs*

Kei Koizumi

- **Report Team.** Group of science and policy leaders who have served in both Republican and Democratic administrations
- **Sponsor.** Novim, an organization devoted to being an independent, non-advocacy source of data and scientific options to the most urgent problems facing humanity



- **Our national, economic, societal, and environmental security and leadership are at risk if cuts to climate and environment (CE) research and development (R&D) and related activities included in the 2018 budget proposal [and 2019 budget] become a reality.**



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Table 1: Climate and Environment R&D Budgets by Agency (Dollars in Millions)²

	<i>FY 2016 Enacted</i>	<i>FY 2017 Estimate</i>	<i>FY 2018 Proposed</i>	<i>FY 17-18 Dollar Change</i>	<i>FY 17-18 Percent Change</i>
Department of Defense (DoD)	351	332	347	15	5%
Department of Energy (DOE)	315	305	124	-182	-60%
Department of Health & Human Services—National Institutes of Health (HHS-NIH)	770	792	593	-199	-25%
Department of Homeland Security (DHS)	72	66	59	-7	-10%
Department of the Interior (DOI)	741	741	600	-142	-19%
Department of State U.S. Agency for International Development (DOS-USAID)	693	760	102	-658	-87%
Environmental Protection Agency (EPA)	1,182	1,114	676	-438	-39%
National Aeronautics and Space Administration (NASA)	1,927	1,906	1,754	-154	-8%
National Oceanic and Atmospheric Administration (NOAA)	596	721	672	-49	-7%
National Science Foundation (NSF)	2,233	2,248	2,032	-216	-10%
Smithsonian Institution	766	766	766	0	0%
U.S. Army Corps of Engineers (USACE)	22	22	16	-6	-27%
U.S. Department of Agriculture	124	128	117	-11	-9%
Total	\$9,791	\$9,903	\$7,858	-\$2,046	-21%



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FY18 budget proposes \$7.9 billion for CE R&D, \$2.0 billion or 21% less than FY17.

The proposed cuts in the 2018 budget would:

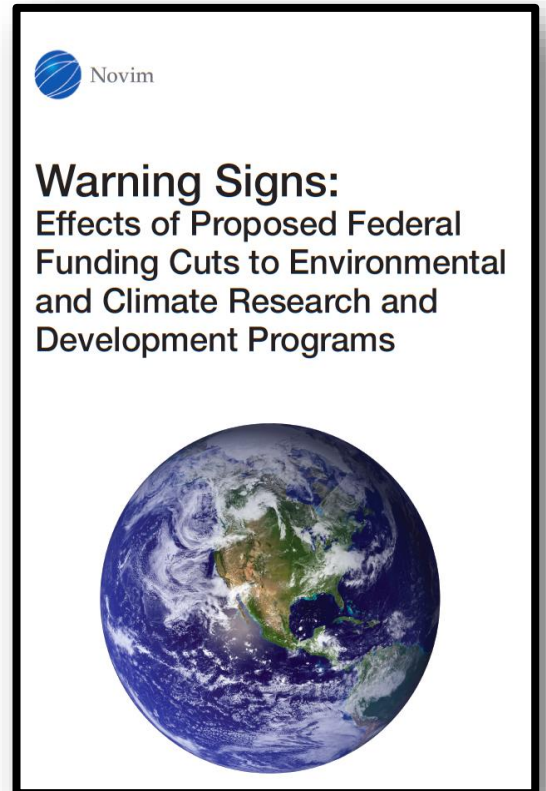
dismantle programs that provide the scientific foundation for agencies to protect effectively the health, economic prosperity, and safety of Americans;

break the continuity and integrity of longstanding and future observations and research infrastructure needed for climate and environment modeling;

undermine our ability to detect and understand critical climate and environment trends and influences on natural resources;

reduce our ability to train the next generation of scientists, resources managers, and decisionmakers who can work together to translate science into effective climate and environment policies and approaches;

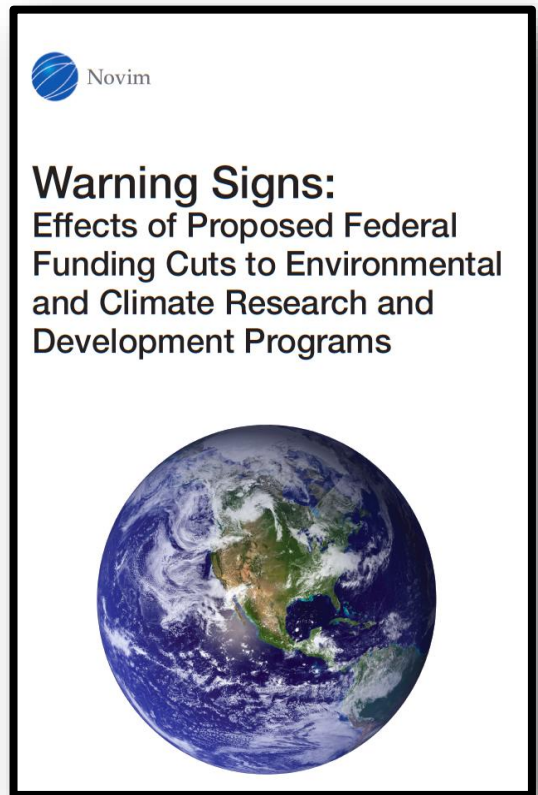
and diminish the nation's ability to meet legal and international climate and environment commitments.



Report's Five High-level Themes:

- 1. Investment and Capacity.** Erosion in turning observations and modeling into understanding and innovation, and missed opportunities from past investments.
- 2. Observations and Modeling.** Irreversible breaks in continuity and integrity of ongoing and future CE observations needed for climate and environmental modeling.
- 3. Adaptation and Assessments.** Reductions to programs that translate CE R&D into assessments, adaptation, and resiliency approaches, (e.g. energy, water, and food supply and consumption).
- 4. Workforce.** Reductions to training the next generation CE-related researchers, and those that can translate science into policies and approaches.
- 5. International Commitments.** Diminution of the United States' ability to meet legal and international climate and environmental commitments.

Investment and Capacity. Erosion in turning observations and modeling into understanding and innovation, and missed opportunities from past investments.



Observations and Modeling.


Irreversible breaks in continuity and integrity of ongoing and future CE observations needed for climate and environmental modeling.




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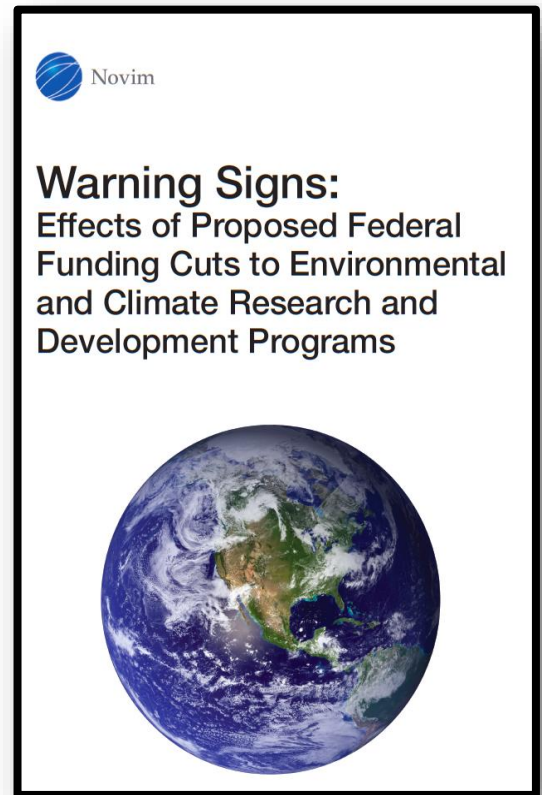
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Workforce. Reductions to training the next generation CE-related researchers, and those that can translate science into policies and approaches.



International Commitments. Diminution of the United States' ability to meet legal and international climate and environmental commitments.

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- **Congress** has signaled reluctance to go along with some of these cuts, but the final 2018 appropriations outcomes are not clear.
- **FY 2019.** The Administration's recently released 2019 budget proposal repeats many of the 2018 cuts. Some agencies (NIH, NSF) fare better, but other agencies fare even worse (Interior). Most agencies' budgets are the same in 2019 as in 2018.

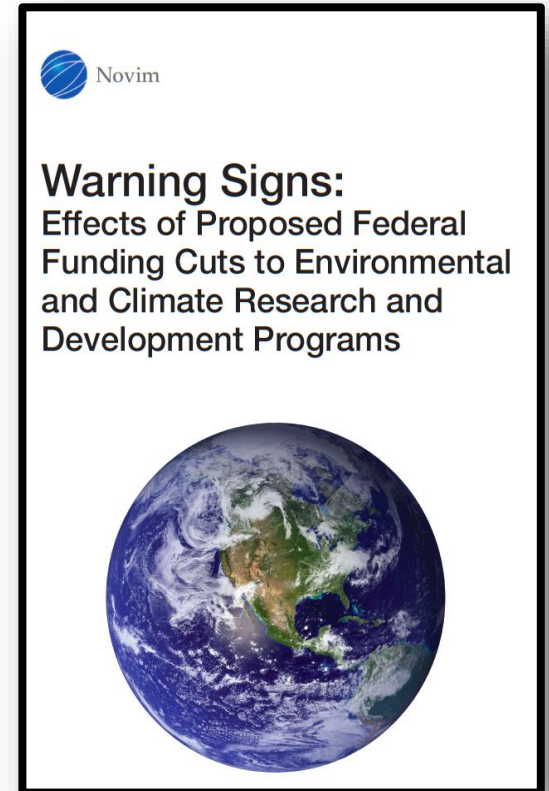


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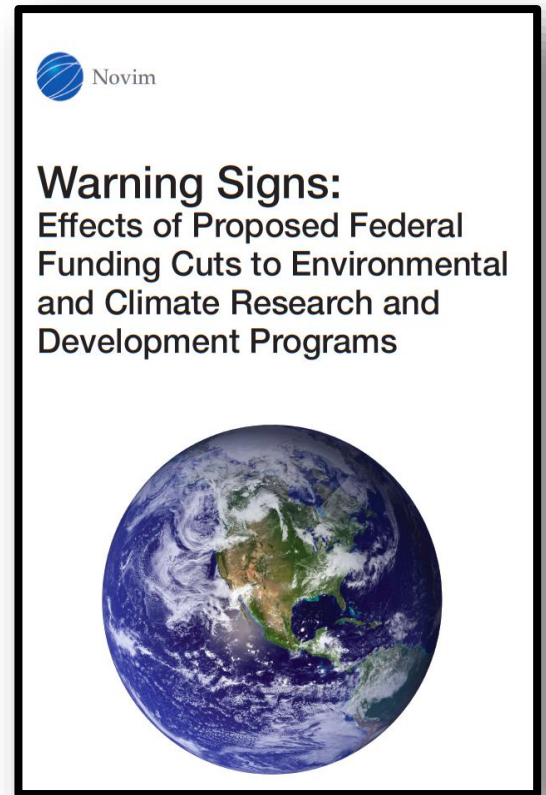


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Questions?



Contact: rivas@novim.org

Link: <https://www.novim.org/projects/budget>