

United States Senate
WASHINGTON, DC 20510

April 1, 2015

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Dear Madam Administrator:

During the March 4, 2015, Committee on Environment and Public Works hearing on the Environmental Protection Agency's (EPA) Fiscal Year 2016 budget, several important questions regarding current climate science and data were raised. Although questions regarding the impacts of climate change were clear and straightforward, none of the questions received direct answers, and many responses contained caveats and conditions.

We write today to emphasize that these questions were not posed lightly or in passing. In fact, questions related to whether projected climate impacts are actually occurring are critical to verifying EPA's commitment to the best science and data, especially as the agency proposes costly carbon dioxide emissions reductions throughout the United States. Stated differently, given that the Administration's proposal to fundamentally change the nature of domestic electricity generation is based on the apparent need to avoid "devastating" climate impacts to the United States and the planet, it is imperative that the agency be candid and forthright in assessing the reality of this projection.

EPA must demonstrate its commitment to sound science and data by providing prompt and thorough responses to questions from Congress. Accordingly, we request and look forward to detailed answers to the following questions:

Drought

- 1) In its 2013 Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) concluded the following:

[T]here is not enough evidence at present to suggest more than low confidence in a global-scale observed trend in drought or dryness (lack of rainfall) since the middle of the 20th century, owing to lack of direct observations, geographical inconsistencies in the trends, and dependencies of inferred trends on the index choice. Based on updated studies, AR4 conclusions regarding global increasing trends in drought since the 1970s were probably overstated. However, it is likely that the frequency and intensity of drought has increased in the Mediterranean and West Africa and decreased in central North America and north-west Australia since 1950.

Do you agree or disagree with the IPCC's conclusion? Please provide all data, analyses, and other evidence that you reviewed and relied on to reach your conclusion.

- 2) In its Special Report on Extreme Events (*Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*), the IPCC concluded the following:

There is medium confidence that since the 1950s some regions of the world have experienced a trend to more intense and longer droughts, in particular in southern Europe and West Africa, but in some regions droughts have become less frequent, less intense, or shorter, for example, in central North America and northwestern Australia.

Similarly, the U.S. Climate Change Science Program's 2008 report (*Weather and Climate Extremes in a Changing Climate*) concluded:

[D]roughts have, for the most part, become shorter, less frequent, and cover a smaller portion of the U. S. over the last century.

Do you agree or disagree with these two conclusions? Please provide all data, analyses, and other evidence that you reviewed and relied on to reach your conclusion.

- 3) At the March 2015 budget hearing, Senator Sessions asked for "the worldwide data about whether or not we are having fewer or less droughts." You responded, "I am happy to provide it but I certainly am aware that droughts are becoming more extreme and frequent."

- a. Please provide all data, analyses, and other evidence held or used by EPA regarding worldwide drought frequency.
- b. Please provide all data, analyses, and other evidence which warranted your conclusion that “droughts are becoming more extreme and frequent.”

Hurricanes/cyclones

- 1) The IPCC Fifth Assessment Report concluded the following:

Current data sets indicate no significant observed trends in global tropical cyclone frequency over the past century. . . . No robust trends in annual numbers of tropical storms, hurricanes and major hurricanes counts have been identified over the past 100 years in the North Atlantic basin.

Do you agree or disagree with the IPCC assessments regarding data sets on global tropical cyclone frequency and trends in annual tropical storms, hurricanes, and major hurricanes in the North Atlantic basin?

- 2) Does EPA have any data, analyses, or other evidence demonstrating an increase in global tropical cyclone (hurricane) frequency over the past century? If so, please provide such data, analyses, or evidence.
- 3) Does EPA have any data, analyses, or other evidence demonstrating an increase in the annual number of tropical storms, hurricanes and major hurricanes over the past 100 years in the North Atlantic basin? If so, please provide such data, analyses, or evidence.
- 4) At the March 2015 budget hearing, Senator Sessions asked whether there have been more or less hurricanes in the last decade. You responded that “[t]here have been more frequent hurricanes and more intense.” Please provide all data, analyses, and other evidence which warranted your response.
- 5) Do you agree or disagree that it has been nearly ten years since the last major hurricane struck the United States?

Temperature data

- 1) Dating back to the 1970's, IPCC climate models have historically predicted a significant increase in global temperatures. At the March 2015 budget hearing, Senator Sessions asked "[i]f you take the average of the models predicting how fast the temperature would increase, is the temperature in fact increasing less than that or more than that?"

You replied that you could not "answer that question specifically," but later committed to submitting written information explaining whether you believe the models have been proven correct and whether temperatures have increased less than projected or more than projected.

Please provide data and analyses showing actual global average temperatures since 1979 versus IPCC predictions, including an EPA-produced chart comparing actual global average temperature increases since 1979 (when satellite temperature data became available) versus the latest IPCC predictions. Please also provide your conclusion on whether IPCC climate models have proven correct.

- 2) At the March 2015 budget hearing, you stated "[t]here are many models and sometimes it is actually going faster and sometimes slightly slower than the model predicts, but on the whole, *it makes no difference* to the validity and the robustness of climate science that is telling us that we are facing an absolute challenge that we must address both environmentally and economically from a national security perspective, and for EPA, from a public health perspective."

Do you agree that EPA has a duty to review and verify the accuracy of climate projections which have served as the basis for the agency's regulatory policy and agenda?

Climate impact monitoring

- 1) According to EPA's website, the agency's Office of Environmental Information "manages the life cycle of information to support EPA's mission of protecting human health and the environment" and "ensure[s] the quality of EPA's information."

The Office's Quality Management Program develops "Agency-wide policies, procedures and tools for quality-related activities relating to the collection and use of environmental information."

In addition, EPA's Office of Information Collection "works in collaboration with EPA partners and customers to develop and implement innovative policies, standards and services that ensure that environmental information is efficiently and accurately collected and managed."

What policies do these and other offices at EPA have in place to monitor and verify the accuracy of agency climate projections? Please provide all reports, analyses, memoranda, and other information from the past ten years in which EPA has reviewed the accuracy of its climate projections.

- 2) What portion of EPA's budget request for FY 2016 is dedicated to monitoring and verifying the accuracy of the agency's climate projections?

Please provide your responses no later than April 21, 2015.

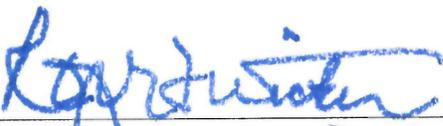
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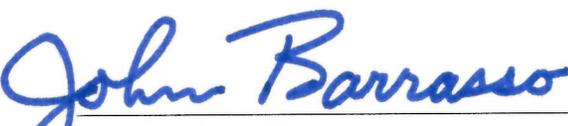
Senator Jeff Sessions



Senator James M. Inhofe



Senator Roger Wicker



Senator John Barrasso