

**VERBAL TESTIMONY TO THE HOUSE COMMITTEE ON SCIENCE, SPACE, AND
TECHNOLOGY. MAY 29, 2014**

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Since 1968 I have published research on the possibility of a human-induced global warming and its potential human and ecological effects. I've spent my career trying to help conserve our environment and its great diversity of species, attempting to maintain an objective, intellectually honest, approach in the best tradition of scientific endeavor. I have been dismayed and disappointed in recent years that this subject has been converted into a political and ideological debate. I have colleagues on both sides of the debate and believe we should work together as scientists instead of arguing divisively about preconceived, emotionally based "positions".

I was an expert reviewer of both the IPCC and White House National Climate Assessment, and I want to state up front that we have been living through a warming trend driven by a variety of influences. However, it is my view that this is not unusual, and contrary to the characterizations by the two reports, these environmental changes are not apocalyptic nor irreversible."

I hope my testifying here will help lead to a calmer, more rational approach to dealing with climate change and with other major environmental problems. The two reports do not promote the kind of rational discussion we should be having. I would like to tell you why.

- 1. My biggest concern is that the IPCC 2014 and the White House Climate Change Assessment present a number of speculative, sometimes incomplete, conclusions embedded in language that gives them more scientific heft than they deserve.** The reports are "scientific-sounding," rather than based on clearly settled facts or admitting their lack. Established facts about the global environment exist less often in science than laymen usually think.

2. THE TWO REPORTS ASSUME AND ARGUE THAT THE CLIMATE WARMING FORECASTS BY THE GLOBAL CLIMATE MODELS IS HAPPENING AND WILL CONTINUE TO HAPPEN AND GROW WORSE. Currently these predictions are way off the reality.

3. THERE IS AN IMPLICIT ASSUMPTION IN BOTH REPORTS THAT NATURE IS IN STEADY-STATE, THAT ALL CHANGE IS NEGATIVE AND UNDESIRABLE for all life, including people. This is the opposite of the reality: Environment has always changed. Living things have had to adapt to these changes and many require change.

The IPCC report makes repeated use of the term “irreversible” changes. A species going extinct is irreversible, but little else about the environment is irreversible.

4. THE REPORTS GIVES THE IMPRESSION THAT LIVING THINGS ARE FRAGILE AND RIGID, unable to deal with change. The opposite is to case. Life is persistent, adaptable, adjustable. In particular, **the IPCC report for policy makers repeats the assertion of previous IPCC reports that “large fraction of species “face” increase extinction risks.”** Overwhelming evidence contradicts this assertion. Models making these forecasts use incorrect assumptions leading to over-estimates of extinction risks. Surprisingly few species became extinct during the past 2.5 million years, a period encompassing several ice ages and warm periods.

5. THE EXTREME OVER-EMPHASIS ON HUMAN-INDUCED GLOBAL WARMING HAS TAKEN OUR ATTENTION AWAY FROM MANY ENVIRONMENTAL ISSUES THAT USED TO BE FRONT AND CENTER BUT HAVE BEEN PRETTY MUCH IGNORED IN THE 21st CENTURY.

6. SOME OF THE REPORT’S CONCLUSIONS ARE THE OPPOSITE OF THOSE GIVEN IN ARTICLES CITED IN DEFENSE OF THOSE CONCLUSIONS. For example, the IPCC *Terrestrial Ecosystem Report* states that “seven of 19 subpopulations of the polar bear are

declining in number,” citing in support of this an article by Vongraven and Richardson, but these authors state the contrary, that the “‘decline’ is an illusion.” In addition, the White House Climate Assessment includes a table of 30 different ecological effects resulting from climate change, a striking list of impacts. However, I reviewed the studies cited to support this table and found that not a single one of these 30 is supported by a legitimate impact analyzed from human-induced global warming or direct observations.”

7. **SOME CONCLUSIONS CONTRADICT AND ARE IGNORANT OF THE BEST STATISTICALLY VALID OBSERVATIONS.** For example, the IPCC Terrestrial Ecosystems Report states that “Terrestrial and freshwater ecosystems have sequestered about a quarter of the carbon dioxide emitted to the atmosphere by human activities in the past three decades (high confidence).” Having done the first statistically valid estimates of carbon storage and uptake for any large areas of Earth, I can tell you that estimates of carbon uptake by vegetation used by IPCC are not statistically valid and overestimate carbon storage and uptake by as much as 300 percent.

8. **THE IPCC REPORT USES THE TERM “CLIMATE CHANGE” WITH TWO MEANINGS: NATURAL AND HUMAN-INDUCED. These are not distinguished in the text and therefore confusing.** If a statement is assumed to be about natural change, then it is a truism, something people have always known and experienced. If the meaning is taken to be human-caused, then the available data do not support the statements.

9. **The issues I brought up in my reviews of the reports have not been addressed in their final versions.** With the National Climate Assessment, I stated that
 - “The executive summary is a political statement, not a scientific statement. It is filled with

misstatements contradicted by well-established and well-known scientific papers.”

- “Climate has always affected people and all life on Earth, so it isn’t new to say it is ‘already affecting the American people.’ This is just a political statement.”
- “It is inappropriate to use short-term changes in weather as an indication one way or another about persistent climate change.”