

Cases for Teaching Responsible Communication of Science

Extreme weather, extreme communication? Signing the statement—discussion version

It is early October, 2012. Much of the central U.S. has been experiencing a severe drought. You are a scientist affiliated with the Institute for the Environment at the University of Midwest, which has decided to use this extreme weather as a “teachable moment” to issue a public statement on climate change. You just got the following email from the Institute, inviting you to sign the statement. What are you going to do—sign, or not?

From: Dale Director
To: Institute for the Environment Listserv
Date: October 2, 2012
Re: Your signature on the State of Midwest Climate Statement: The Drought of 2012

Dear Colleagues:

Attached please find the updated *State of Midwest Climate Statement: The Drought of 2012*. This updated statement was written by a group of Midwest state climate science faculty and edited through an interactive process that engaged the input of science faculty from across the state.

The statement has been finalized and is now being circulated to faculty and research staff at all colleges and universities in the state to solicit support for the statement. We are asking faculty that support the statement to join us in signing on to it.

In addition to seeking your endorsement of the Climate Statement, we would like to solicit your help in circulating it to colleagues on your campus as well as other colleges and universities in the state. We want to be as thorough as possible in circulating this to faculty and research staff at all community colleges as well as all the private and public colleges and universities. We would like to recruit as many faculty and researchers as possible.

We would like your help in doing this right now!

Please let us know if you are willing to support the finalized statement as written. If you are, and want to be included as a public supporter of this statement (the list of signers will be made public) please email us. Please let us know your name, title and institution and that you agree to be included as a signer of the *State of Midwest Climate Statement: The Drought of 2012*.

Once we get all of the interested faculty and research staff endorsements we will work to publicize the statement with statewide and local community press events, letters to the editors and op-eds in community newspapers across the state. We will work with faculty as needed to get the statement out to local press in their community. The statement can also be the basis for individual letters to the editor in local papers as well. We really want to disseminate the statement widely around the state.

Please note, we would like to complete circulation of the statement for signers by Friday, October 15, 2012.

Let us know if you have any questions. Thanks for your time and interest.

Dale Director
Professor and Director, Institute for the Environment
University of Midwest

Attachment

State of Midwest Climate Statement: The Drought of 2012

October 2, 2012

As faculty and research staff at State of Midwest universities and colleges, we have confidence in recent findings that climate change is real and having an impact on the economy and natural resources of our state. We feel that it is important for citizens of the State of Midwest to understand its implications. Citizens of Midwest are living with climate change now and it is costing us money already. The drought that we are currently experiencing is consistent with an observed warmer climate, although science cannot say with certainty that the drought of 2012 was caused directly by human activities. The following observations support the case that more droughts and floods are likely in the future.

1. Globally over the past 30 years, there is clear statistical evidence that extreme high temperatures are occurring disproportionately more than extreme low temperatures. The climate likely will continue to warm due to increasing global emissions and accumulation of greenhouse gases.
2. In a warmer climate, wet years get wetter and dry years get dryer. And dry years get hotter - that is precisely what happened in the State of Midwest this year. We can expect our state to experience higher temperatures when dry weather patterns predominate. The latest science, based on overwhelming lines of physical evidence, indicates we can expect dry periods to be more frequent as soon as the 2020s.
3. The State of Midwest also has experienced an increasing frequency of intense rains over the past 50 years, likely due to a higher surface evaporation in a warmer world. Because of these extremes in precipitation (drought and flood), citizens will increasingly need infrastructure investments to adapt to climate fluctuations while developing and implementing mitigation.

As global citizens, citizens of the State of Midwest should be a part of the solution. We can prosper, create jobs, and provide an engine for economic growth in the process. The State of Midwest should lead innovation in reducing greenhouse gas emissions, improve resilience in agriculture and communities, and move towards greater energy efficiency and increased use of renewable energy.

Questions for Discussion

1. What is the purpose?

- What are the purposes scientists can aim to achieve when communicating with the general public on controversial topics like extreme weather and climate change? How many different purposes can you think of?
- What is the purpose of this Climate Statement? What does the Statement itself say? Is that the right purpose? What can this statement reasonably accomplish?

2. Too weak—or too strong?

- The Statement includes an explicit disclaimer that “science cannot say with certainty that the drought of 2012 was caused directly by human activities.” Does this limitation weaken the letter? Should it have been omitted?
- The Statement ends with a call for action. Is that appropriate for scientists, or does it cross over the line into political activism?
- The Statement nowhere says that climate change is due to human action. Should it?
- Is the language of the Statement too strong/emotional, or is it appropriate for scientists communicating with the public? If you think the language is inappropriate, what revisions would you propose?

3. Who signs?

- If you're not a climate scientist, should you decline to sign?
- Do you want to find out who else is signing the Statement? What do you do if you find out that an English professor who is an affiliate of the Institute for the Environment has already signed the Statement?
- Does it matter how many scientists sign the Statement? Does your signature really add anything?
- What if you find out that 137 scientists at several colleges and universities in the state have already signed. Does that make a difference in your decision? Why?

4. Your overall judgment?

- If you disagree with parts of the Statement, does that mean you shouldn't sign it?
- After you sign it, what if anything are you going to do next? Is there any follow-up you ought to do to promote the purpose of the Statement?