



Central Coast Climate Science Education
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An Open Letter concerning the Paris Agreement
(Last edit: October 23, 2016)

Background

The United Nations Framework Convention on Climate Change

In June of 1992, an international conference was held in Rio de Janeiro, Brazil--the so-called "Earth Summit". At this meeting there were three "conventions" agreed to, and subsequently ratified. One of these goes by the somewhat awkward title of "The United Nations Framework Convention on Climate Change" or UNFCCC.

The fundamental goal of the UNFCCC is to *"achieve...stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [human-caused] interference with the climate system."* The 197 nations who agreed to this document are called "Parties to the Convention". The U.S. officially became a Party to the Convention when the U.S. Senate provided the necessary two thirds majority to "advise and consent" to the UNFCCC, which has the force of a treaty.

The UNFCCC specifies that a yearly "Conference of the Parties" (COP) be held to assess progress and move forward on the stabilization goal. The third COP in Kyoto in 1997 resulted in the "Kyoto Protocol" which the U.S. signed, but which the Senate rejected. With no U.S. participation, and with the developing nations, including China, not required to address greenhouse gas emissions, the Kyoto Protocol was pretty much doomed to badly miss its goals.

The Paris Agreement

As the reality and harmful effects of climate change driven by greenhouse gas emissions became increasingly apparent, a renewed effort was begun to craft an agreement that would achieve the fundamental goal of the UNFCCC. A strong impetus towards this agreement was provided through a series of meetings between President Obama and Chinese President Xi laying out their vision of such an agreement. This agreement came to fruition at the December 2015 "COP 22" meeting in Paris, and resulted in what is known as the Paris Agreement. Enough signatories to the Paris Agreement, including the U.S. and China, have now been obtained that the Agreement will officially go into force on November 7, 2016.

A summary of the Paris Agreement may be found here:

<http://www.climatefocus.com/sites/default/files/20151228 COP 21 briefing FIN.pdf>. (See also the link below to my interview on NPR station KCBX for further discussion of the Paris agreement.)

A key provision of the Agreement is that each Party is required to submit its own goals and plans for reducing its greenhouse gas emissions. The Agreement recognizes that the varying degrees of development and technological capability will result in different goals for each country. The U.S. has committed to reduce its emissions by 27 percent, relative to a 2005 baseline, by 2025.

The Open Letter on Climate Change and The Paris Agreement

Genesis of the Open Letter

The Agreement allows a ratifying country to notify its intention to withdraw from the Agreement, but only after at least three years from the time it has gone into effect for that country, and the withdrawal does not go into effect until an additional fourth year.

In practice however, given that the U.S. was the acknowledged world leader in forging the Agreement, if a new U.S. administration should signal its rejection of the Agreement and also reject the policies necessary for the U.S. to meet its commitment, the Paris Agreement, like the Kyoto Protocol, would very likely collapse.

In May of 2016, one of the two main nominees for President of the United States announced his intention to withdraw from the Paris Agreement should he be elected (see the press release below) and continued to state his belief that human-caused climate change was a "hoax".

At that point, there was correspondence between myself and fellow astrophysicist Dr. George Field and two renowned climate scientists, Dr. Benjamin Santer and Dr. Kerry Emanuel. We agreed that the media and the general public should be made aware of the serious global consequences should a new administration not adhere to the Paris Agreement and not strive to meet the U.S. commitment to reduce its greenhouse gas emissions under that Agreement.

The four of us agreed that the best way to do this would be to write an Open Letter to be signed by a large number of members of the National Academy of Sciences (NAS). See <http://www.nasonline.org/about-nas/mission/>

With input from the other three of us, Dr. Santer composed the letter, which in my opinion is a powerful and compelling statement on the urgency of dealing with climate change and the importance of adhering to the Paris Agreement.

The Open Letter

During the summer of 2016 we obtained 375 signatures from members of the NAS, including 30 Nobel Laureates, as well as renowned physicist Stephen Hawking and noted biologist E.O. Wilson. The letter was posted on September 20th, 2016 on a website created for the letter. I urge you to read that letter where you can also see the full list of signers: <http://responsiblescientists.org/>

A press release accompanied the posting of the letter and I am reproducing it here:

Top Scientists: Don't Abandon Paris Climate Agreement

375 Members of the National Academy of Sciences, Including 30 Nobel Laureates, Pen Open Letter on Climate Urgency and Dangers of Withdrawal from Paris Agreement

On Sept. 20, 2016, 375 members of the **National Academy of Sciences** published an open letter that draws attention to the serious risks of climate change. The letter also highlights the urgent need to reduce heat-trapping emissions as part of the Paris Agreement. The scientists warn that a U.S. withdrawal from this agreement would diminish U.S. credibility internationally, hobble U.S. economic competitiveness in developing and marketing clean energy sources, and undermine the world's ability to deal with climate change. The Republican nominee for President has advocated withdrawing from the Paris Agreement, as documented [here](#).

The National Academy of Sciences was formed under President Abraham Lincoln to provide independent scientific advice to policymakers. Academy membership is considered one of the highest honors in science. Among the 375 signers are noted physicist Dr. Stephen Hawking and biologist Dr. E.O. Wilson, and 30 Nobel Prize winners. The signers are acting in their capacity as citizens and scientists. The letter is not an official communication from the Academy or from other institutions with which the scientists are associated.

Climate scientist Dr. Benjamin Santer, who helped to organize the letter, said he felt it was important to speak out. "Human-caused climate change is real, is serious, and is happening now. The United States has to be a leader in international efforts to reduce greenhouse gas emissions and solve this global problem."

Dr. Kerry Emanuel, another climate scientist and letter organizer, stated, "we are in real danger of rolling back what progress we have made, exposing our descendants to unacceptable levels of risk."

Dr. Akin Mabogunje, a renowned geographer from Nigeria and the first African to be elected a Foreign Associate of the Academy, said, "I feel privileged to join the voices of scientists internationally in calling attention to the catastrophe that could follow indifference to this challenge by a leader country such as the United States."

Dr. Lonnie Thompson, a signer and world-famous glaciologist, just returned from a six-week trip studying glaciers in Peru – a vital source of water for that region. "What I observed was by far the largest ice loss that I have seen on these glaciers in the 42 years I've been doing this."

Astrophysicist Dr. George B. Field, another organizer, stressed “the role that scientific expertise must play in informing policy decisions, whether in climate change, genetics, medicine, and other scientific fields that impact society.”

Astrophysicist Dr. Ray Weymann, the fourth organizer, said, “the response of so many NAS members shows that this isn’t just of concern to climate scientists – it demonstrates the strong consensus of the broader scientific community on the urgency of this issue.”

Commenting on the letter, Dr. Neil deGrasse Tyson, a recipient of the Academy’s Public Welfare Medal, said, “For lawmakers to not heed the advice of esteemed scientists on matters of science, in this the 21st century, signals the beginning of the end of an informed democracy.”

I gave a brief telephone interview on the letter which you may listen to here: <http://kcbx.org/post/how-organizer-nas-climate-change-letter-feels-about-alarmist-branding> and a subsequent interview about the Paris Agreement itself here: <http://www.kcbx.net/players/player-ii.php>

While the Open Letter did receive media coverage, I was disappointed that not a single question about climate change was asked of the two Presidential candidates during any of the three debates. So it is not clear what impact this letter has had. As of the date of this post, we do not know the outcome of the election. Nevertheless, my hope is that readers of this website will carefully read the letter. It was signed by many of the world's leading scientists. They have no other stake in this issue except the future welfare of the planet we and future generations must live on.