

Paris, an exercise in climate rainmaking

Patrick Michaels

November 3, 2016

Accompanied by hosannas and jubilation, on Friday, Nov. 4, the United Nations' Paris agreement on <u>climate change</u> goes into effect. It's the real deal. At least according to Texas Tech climate modeler Kathryn Hayhoe, who <u>told</u> the Associated Press it is "a moment of bright hope in the increasingly discouraging landscape of climate science."

What all this has to do with climate science is a mystery, because, upon examination, the Paris agreement is a tinkling cymbal of climatic meaninglessness. More accurately, ex-NASA chief climatologist James Hansen got it, when he <u>called</u> Paris "a fraud" soon after it was finalized last December.

The negotiators at Paris seemed not to care that people would take a hard look at the numbers, and that those concerned about <u>global warming</u> (as projected by computer models) would find the reality of the agreement alarming.

The agreement's objective is "Holding the increase in global average temperature to well below 2 degrees Celsius above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees."

Is this even possible?

No, or at least, not in the world of climate models. The increase in surface temperature measured since 1860 is around 0.9 degrees Celsius. That leaves wiggle room of only 1.1 degrees beneath the 2 degree target (disregarding the words "well below") and 0.4 degrees for a 1.5 degree top.

And of course, this fails to account for all of the warming that's baked in — which previous emissions have built into the climate system already, owing to the fact that the ocean takes a long time to respond to a change in heating. Imagine putting a large pot of water on a stove with a very tiny flame underneath. It will be quite a while before the water stops getting hotter and reaches a stable temperature.

A typical calculation of this "thermal lag," such as from the climate model at the U.S. National Center for Atmospheric Research, yields about 0.6 degrees Celsius of still-unrealized warming. If the model is right (more on that later), this is inevitable. Adding that to the observed warming puts us already beyond the 1.5 degree aspirational goal and leaves little room to avoid the 2.0 degrees Celsius maximum.

The U.N. and the State Department consult various calculators to determine the effects of policies like the Paris agreement. Their climate-model based future contains only 0.1 to 0.2 degrees less warming to the year 2100 with Paris than without it. The actual numbers: An average of 3.75 degrees absent any policy, and 3.6 degrees fully implementing the Paris agreement as it stands. So Paris is expected to mitigate warming by a mere 0.15 degrees.

Why is so little difference from business as usual? Because most signatories would only agree to emissions at business as usual levels. That includes China, the world's largest emitter. India, which will soon be the world's third-largest emitter, pledged to increase its emissions *more* than business as usual. Only the U.S. and the European Union, among the large emitters, agreed to do much more.

Hansen's right that this is "a fraud." And what if states fail to comply? According to Article 15 of the agreement, the mechanism to "promote compliance" is to be "transparent, nonadversarial, and nonpunitive." In other words, Paris is unenforceable. When asked about this on the Sunday talk shows after the agreement, Secretary of State John Kerry said "shaming" was "our most powerful weapon." On the Internet, maybe.

The bigger issue is that the robust warming expected through 2100 could just be a figment of the imagination of climate models and climate modelers who are increasingly diverging from the real world. It is becoming apparent that they are predicting too much warming, with recent <u>calculations</u> by Georgia Tech's Judith Curry and the United Kingdom's Nic Lews cutting their predictions in half.

If these calculations hold, then that means the real warming from the industrial revolution to 2100 will be closer to the target of 2.0 degrees Celsius, with or without the Paris agreement. When this becomes apparent, the <u>climate change</u> rainmakers will step in to tell us it all happened because of Paris.

Patrick Michaels is a climatologist and director of the Center for the Study of Science at the Cato Institute.