Climate Change Was Never Really Debatable – until the Paris Agreement

By Bill Menke, July 31, 2022

My Vegetarian Chili

My favorite recipe for vegetarian chili calls for a long simmer. After sautéing the peppers, carrots, celery and onions, I mix them in a large pot with the beans, crushed tomatoes, broth and spices and put them on the burner of my stove, set at low. All I have to do is wait an hour, stirring occasionally to ensure that the heat is evenly distributed, and my chili comes out delicious.

Sometimes, I'm in a hurry and an hour is too long to wait. Whether I can increase the heat to medium and shorten the cook time to a half hour, without reducing the quality of the chili, is unclear. I definitely need to pay closer attention to stirring, lest the chili at the bottom of the pot burn, tainting the whole batch with an acrid flavor, or the chili at the top of the pot boil over, making a mess. But these pitfalls can be avoided by vigorous stirring and the end product, at least, is acceptable. What is less clear is whether this chili is as good as that the slow-cooked version. Have the peppers lost some of their zest? Have vitamins been lost through overheating? These are issues which reasonable cooks can debate.

Turning the heat to high, so that the burner elements begin to glow red hot, does not work. No matter how fast one stirs, the chili at the bottom of the pot always burns and the chili at the top always spatters everywhere. What also does not work - and please don't try this – is turning the stove to high and going to the movies. Both scenarios are so extreme that their outcome is not debatable. No reasonable cook is going to say anything but that both are folly.

Mind you, I'm not saying that there's no one out there who would debate them. I bet that somewhere there is a person who has contemplated making vegetarian chili on a volcanic lava flow. But no reasonable cook would.

Turning up the stove to high and leaving the chili on indefinitely is a good analogy to what we're doing to the Earth's climate system. Carbon dioxide released into the atmosphere by the burning of fossil fuels acts like a boost to the stove's burner, causing the world to warmer. Were that boost small and temporary, reasonable people could debate whether the warming would really be all that bad, and whether its effects might be mitigated by some simple action, in the same way that the burning and spattering of chili is mitigated by stirring. But the increase in carbon dioxide level is neither small nor temporary. Carbon dioxide just keeps building up in the atmosphere as we continue to burn fossil fuels.

The carbon dioxide level is measured in parts per million; the higher the number, the more carbon dioxide. And the higher the number, the more intense the greenhouse effect. The significance of the greenhouse effect can be judged by comparing the temperatures of the Earth and moon. They get exactly the same amount of sunlight, but the Earth is one hundred and sixty degrees Fahrenheit warmer than the moon because of the blanketing effect of its atmosphere. This very large spread in temperature highlights the potential for a boost in carbon dioxide level to cause a really significant

increase in temperature. And the boot due to burning of fossil fuels is not small. Today's level 415; back in 1960, it was 315. That's a substantial boost – one large enough that we're getting used to droughts and fires, storms and floods that, back in the Sixties, we would have thought mighty unusual. Still, it's still a level whose effect is debatable.

What's not debatable is that the carbon dioxide level steadily is rising, by about two and a half parts per million per year. Irrespective of how bad is a level of 415, it will soon be even higher. Also, what is not debatable is that basic physics dictates that there is a level that will causes severe hardships. Among these hardships is sea level rise from the melting of the ice sheets on Greenland and Antarctica. They, and especially Greenland's, are already experience significant melting, and that melting will accelerate when the carbon dioxide level crosses the 500 threshold, which will happen in about forty years. Sea level will rise one hundred feet, at the rate of a few inches a year – year after year for generations.

Climate change was never really a debate because without a plan to stabilize atmospheric carbon dioxide at some specific level, it will increase until it causes catastrophic climate change. Debating the inevitable is pointless. Only when we can envision it going no higher than some articulated limit, do nuances arise that are worth debating. The 2016 Paris Agreement was notable in setting the goal of limiting global warming to 3.6 degrees Fahrenheit (2 degrees Celsius) – a level that corresponds to carbon dioxide level of about 450.

This is a goal that we now can debate.