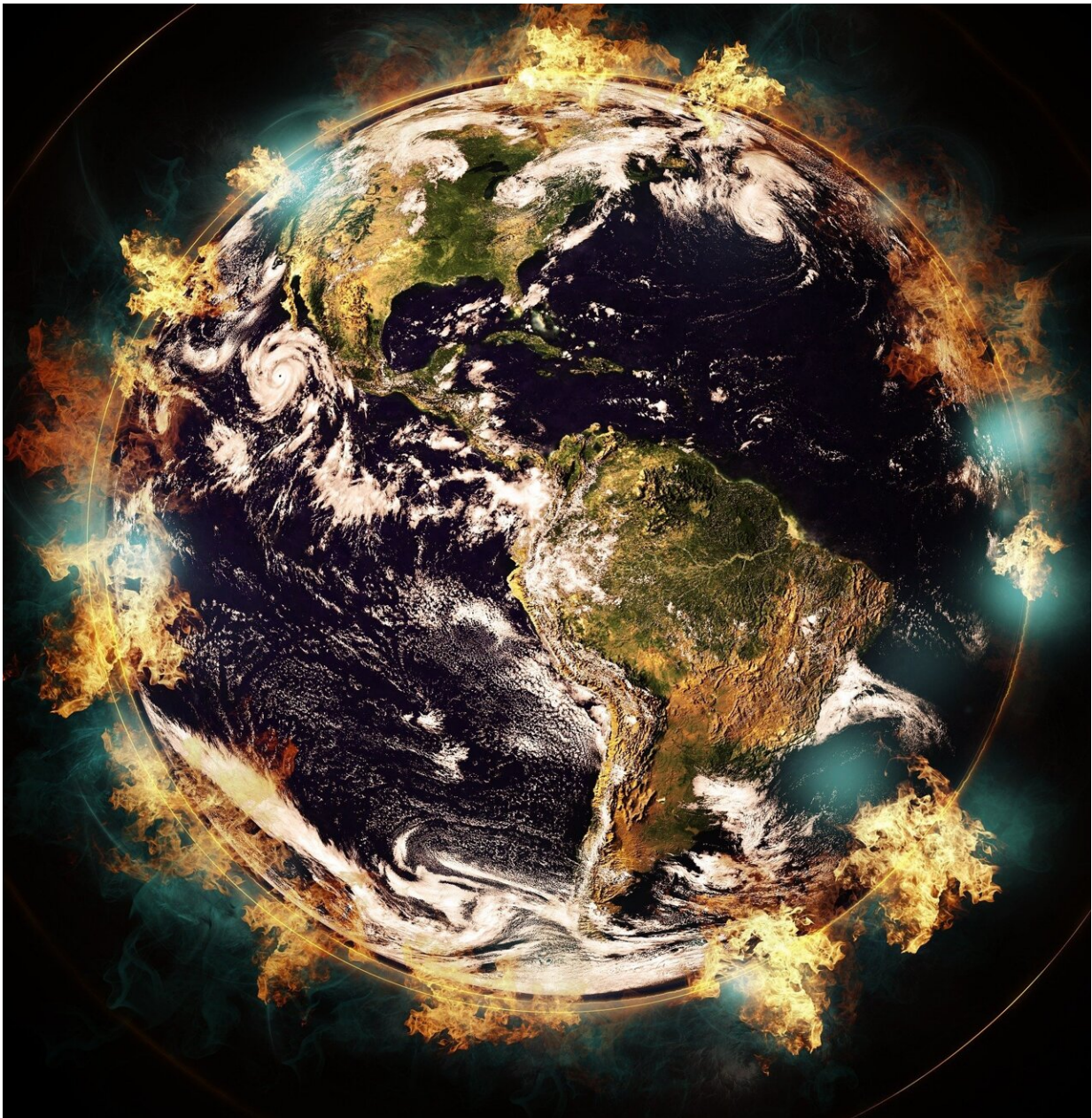


Review suggests current global efforts are insufficient to limit warming to 1.5°C

June 24 2022, by Bob Yirka



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A pair of climate scientists at Concordia University has concluded that despite efforts to curb greenhouse gas emissions by many nations, the goal of limiting global warming to 1.5 degrees Celsius by the middle of this century will not be met. In their paper, published in the journal *Science*, H. Damon Matthews and Seth Wynes reviewed the current global climate system and compared it to efforts to reduce CO₂ emissions.

Scientists around the world are united in their belief that [greenhouse gas emissions](#), particularly [carbon dioxide](#), are leading to a warming planet. And because of the dangers posed by such warming, people around the globe have been working toward reducing emissions. Prior research has suggested that these emissions have already led to an increase of 1.25 degrees Celsius. So governments around the world have agreed to set a goal of reducing CO₂ emissions over the next three decades to curb warming to 1.5 degrees Celsius. In their review, the researchers found little to no evidence indicating that the goal will be met.

In their work, Matthes and Wynes looked at research describing the current state of the global climate system. As part of that effort, they looked at past trends that have led to the warming increases already observed, and efforts by others to use such data to predict warming in the future based on different levels of [greenhouse](#) gas emissions. They analyzed efforts around the globe aimed at reducing greenhouse gas emissions and used them to make estimates regarding their impact on slowing [global warming](#).

In the end, the pair found that given current circumstances, there is

almost zero chance that the 1.5 degrees Celsius goal will be met. They note that to meet that goal, emissions would have to fall by approximately 43% by 2030—instead, emissions levels are still rising. They suggest the primary barriers to success are the lack of a proper global technological system and the political will to effect change. They conclude that the world is simply not seriously committed to reaching the 1.5 degrees Celsius goal.

More information: H. Damon Matthews et al, Current global efforts are insufficient to limit warming to 1.5°C, *Science* (2022). [DOI: 10.1126/science.abo3378](https://doi.org/10.1126/science.abo3378)

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