

Although lacking the same eloquence, today's post is in the spirit of Churchill's famous speech promising that Britain would "fight on the beaches, ... we shall fight in the hills; we shall never surrender." My point is this: No matter how many battles we end up losing in the fight to stop carbon emissions, we can never afford to give up.

It's not hard to see why some people despair about the climate. The Paris Agreement's goal is to keep global warming well below 2°C, preferably to 1.5° C, over pre-industrial levels. Those goals are possible under some of the new IPCC scenarios, but many of the scenarios are more pessimistic. Reaching the 1.5°C goal would require immediate, drastic action on a scale that seems unlikely. Even reaching the 2°C goal is going to take a tremendous effort. It's not hard to make a case that we're likely to miss that one too. Human beings can be short-sighted, self-centered, uncooperative, and sometimes just plain irrational. Despite all the work, all the dedication, of thousands of people around the world, there's a good chance we'll blow past the Paris Agreement's targets.

Suppose we do miss those targets? Is there any point to continuing the fight? The answer is unequivocally "yes."

In terms of emissions cuts, the basic rule is simple: Every ton counts. In the long run, warming will be determined by how much carbon we pump into the atmosphere before we stop. According to the IPCC, every trillion tons of carbon dioxide translates into another half degree of warming. That's about ten years of emissions at current rates. And each half degree of warming causes more and more havoc, as the climate becomes increasingly destabilized. If we can shave down the curve even a little, we reduce the ultimate tonnage of carbon lingering in the atmosphere.

If you want to be really pessimistic, assume that we can't reduce the ultimate cumulative CO<sub>2</sub> level. Even so, just as with coronavirus, it would be worth flattening the curve, so we get to that ultimate level later. There would be value in slowing down climate change even if we can't change how bad it will ultimately get. Slowing the process provides more time to adapt to the changes — not just for human society but for other species. We also buy time for new breakthroughs, maybe to cut emissions more easily, maybe to remove carbon from the atmosphere.

Our goal should be cutting emissions as fast as the world can manage. But if we can't bust the emission curve entirely, there's value in shaving it down or flattening it. And that means that we even if the situation starts to look grim, we can't afford to quit fighting.