

What the Coronavirus Means for Climate Change

Lockdowns and distancing won't save the world from warming. But amid this crisis, we have a chance to build a better future.

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Something strange is happening. Not just the illness and death sweeping the planet. Not just the closing of borders and bars and schools, the hoarding of wipes and sanitizer, the orders — unimaginable to most Americans weeks ago — to “shelter in place.” Something else is afoot. In China and Italy, the air is now strikingly clean. Venice's Grand Canal, normally fouled by boat traffic, is running clear. In Seattle, New York, Los Angeles, Chicago and Atlanta, the fog of pollution has lifted. Even global carbon emissions have fallen.

Coronavirus has led to an astonishing shutdown of economic activity and a drastic reduction in the use of fossil fuels. In China, measures to contain the virus in February alone caused a drop in carbon emissions of an estimated 25 percent. The Center for Research on Energy and Clean Air estimates that this is equivalent to 200 million tons of carbon dioxide — more than half the annual emissions of Britain. In the short term, response to the pandemic seems to be having a positive effect on emissions. But in the longer term, will the virus help or harm the climate?

To be clear, the coronavirus pandemic is a tragedy — a human nightmare unspooling in overloaded hospitals and unemployment offices with unnerving speed, barreling toward a horizon darkened by economic disaster and crowded with portents of suffering to come. But this global crisis is also an inflection point for that *other* global crisis, the slower one with even higher stakes, which remains the backdrop against which modernity now plays out. As the United Nations' secretary general recently noted, the threat from coronavirus is temporary whereas the threat from heat waves, floods and extreme storms resulting in the loss of human life will remain with us for years.

Our response to this health crisis will shape the climate crisis for decades to come. The efforts to revive economic activity — the stimulus plans, bailouts and back-to-work programs being developed now — will help determine the shape of our economies and our lives for the foreseeable future, and they will have effects on carbon emissions that reverberate across the planet for thousands of years.

How hopeful you feel about the direction this response is taking may depend on how long ago you refreshed your news feed. Just last week (which feels like a hundred years ago), a friend suggested that there may be a sort of Freudian transference from coronavirus to climate — that the fear and sense of urgency will be lifted from the faster-moving crisis and settle on the slower one, becoming a catalyst for much-needed action. So far, it seems any transference is working in the opposite direction: Lockdowns and social distancing are providing a litany of necessary actions ripe for the transferal of nebulous climate anxieties and fears. In this context, consumerism perversely provides some relief — you can finally go buy dry goods to prepare for the apocalypse.

But personal consumption and travel habits are, in fact, changing, which has some people wondering if this might be the beginning of a meaningful shift. Maybe, as you hunker down with cabinets full of essentials, your sense of what consumer goods you *need* will shrink. Maybe, even after the acute phase of the coronavirus crisis has passed, you will be more likely to telecommute. Lifestyles that include, for example, frequent long-distance travel already seem ethically questionable in light of the climate crisis, and, in an age irrevocably scarred by pandemic, these lifestyles may come to be seen as grossly irresponsible. Maybe among the relatively wealthy, jumping on a plane for a weekend away or for a destination wedding will come to seem unthinkable.

Sweeping changes in individual habits — particularly in wealthy countries with high per capita consumption — could lead to lower emissions, which would be an unequivocal good. But personal habits may matter less because of direct reductions in carbon emissions and more because of “behavioral contagion,” a term from the social sciences that refers to the way ideas

and behaviors spread through a population and can, in terms of climate action, lead to changes in voting and even policy.

Which is to say, in order to be meaningful for global emissions, changes in consumption habits as a result of the virus would need to extend beyond individuals to the larger structures that shape our lives. In China, it wasn't telecommuting or grounded planes that led to the 25 percent drop in emissions. It was the abrupt halt of industrial manufacturing. (The concept of the "personal carbon footprint" was popularized by BP in a 2005 media campaign costing over \$100 million — a campaign that, research has indicated, deflected responsibility for climate change away from the corporation and onto the individual consumer.) This is not to say that personal consumption is meaningless — a significant reduction in air travel could decrease aviation emissions. But aviation accounts for only about 2.5 percent of global emissions, an amount that looks downright puny in the shadow cast by heavy industry.

If anything, the short-term positive effects on the climate that we're seeing today serve as a dramatic reminder that changing personal consumption habits will mean very little going forward if we also fail to decarbonize the global economy.

Of course, there's good reason for concern that despite the clean air and canals of the past three weeks, coronavirus will be a disaster for the climate.

According to the oil-trading firm Trafigura, coronavirus may lead to global oil demand seeing its biggest contraction in history, perhaps by more than 10 million barrels per day. While this may be good news for carbon emissions now, it signals a human disaster of epic proportions without any guarantee that emissions will remain low.

Yes, we could see a sustained emissions drop as economies stagnate and people struggle with the harsh daily realities of a global recession. But there were also dips in emissions during the 2008 financial crisis and the oil shocks of the 1970s, and emissions bounced back as economies recovered. The current crisis is different, to be sure, but after the acute phase passes, industrial production and carbon emissions are likely to ramp back up.

A global recession as a result of coronavirus shutdowns could also slow or stall the shift to clean energy. If capital markets lock up, it will become difficult for companies to secure financing for planned solar, wind and electric grid projects, and it could tank proposals for new projects; renewable energy projects around the world are already stumbling because of disruptions to the global supply chain. (A huge share of the world's solar panels, wind turbines and lithium-ion batteries are produced in China.) Going forward, a shutdown of trade between China and the United States — for economic or political reasons — would also hit these projects hard. The clean energy analyst BloombergNEF has already downgraded its 2020 expectations for the solar, battery and electric-vehicle markets, signaling a slowdown in the clean energy transition when we urgently need to speed it up.

If oil prices stay low, that could be bad news for the climate, too. Falling demand has converged with skittish investors spooked by the pandemic and with an oil price and production war between Russia and Saudi Arabia. Cheaper energy often leads consumers to use it less efficiently. Low prices could help depress electric-vehicle sales and make people less inclined toward projects like retrofitting homes and offices to save energy.

Coronavirus is bad for the climate even on the most macro levels. Lockdowns and social distancing have slowed climate research around the world or ground it to a halt. NASA is on mandatory telework. Research flights to the Arctic have been stopped, and fieldwork everywhere is being canceled. No one knows how much climate data will never be collected as a result, or when research might be able to start up again.

Gatherings of world leaders to address the climate crisis also have been delayed or canceled, and the COP26 climate summit in Glasgow planned for November could be next, meaning that the pandemic will very likely slow already sluggish international action. This could derail climate talks at a time when, under the Paris Agreement, countries are supposed to announce new pledges to reduce emissions. Such a derailment would make it even more likely that countries would blow past warming-limit goals. Going forward, public attention is likely to be diverted from the climate by ballooning fears over health and finances, and climate activism that depends on large public protests is being forced indoors and online.

There is a world in which stimulus measures could outweigh short-term impacts on energy and emissions, driving emissions *up* over the long term. This is what happened in China after the 2008 global economic crisis. Already, China is indicating that it will relax environmental supervision of companies to stimulate its economy in response to coronavirus shutdowns, which means that astonishing 25 percent cut in carbon emissions could evaporate, followed by even more emissions than before.

In the United States, we could see similarly shortsighted recovery packages aiming to ramp up the economy to pre-pandemic levels that double down on soaring carbon emissions. So far, the American government's aid legislation has failed to address clean energy or the climate. The \$2 trillion stimulus bill passed by Congress this week, the largest fiscal stimulus package in modern American history, includes direct payments to individuals, expanded and extended unemployment benefits, and \$500 billion in loans to bail out affected industries. It does not include relief for renewables, such as crucial tax credit extensions for solar and wind.

This isn't likely to be the last stimulus. Already, there is talk of the next phase of economic relief, and climate and clean energy advocates are looking to future legislation that might aim to relieve specific industries.

The two biggest wild cards for climate going forward are how policymakers respond to the threat of a global recession and how the pandemic changes political will for climate action around the world. Prime Minister Andrej Babis of the Czech Republic has already said that the European Green Deal, a new policy package that commits European Union member states to zero emissions by 2050, should be set aside so that countries can focus on fighting the pandemic.

This week has seen a chilling shift in conservative rhetoric around the virus that echoes all-too-familiar patterns of climate denialism, suggesting that a more dangerous sort of transference is taking place. As the climate scientist Katharine Hayhoe wrote on Twitter, "The six stages of climate denial are: It's not real. It's not us. It's not that bad. It's too expensive to fix. Aha, here's a great solution (that actually does nothing). And — oh no! Now it's too late. You really should have warned us earlier."

There is another world in which policymakers and politicians planning for economic recovery decide to make building a carbon-neutral society a priority. Because while the new reality could easily drain political will and funding from efforts to address the climate crisis, it could also inject a sense of urgency at a time when politicians are suddenly willing to spend vast sums of money. In this world, governments would create meaningful jobs in areas such as education, medical care, housing and clean energy, with an emphasis on "shovel-ready" projects that put people to work immediately.

The U.S. government, for example, could continue to provide jobs as needed — the program would expand during recession and contract when the economy recovered and people could find work elsewhere. As Kate Aronoff writes in *The New Republic*, "One possible benefit to such a program is that it could provide an alternative to low-paid work bound up in carbon-intensive supply chains like those at McDonald's and Walmart — currently the only employment on offer in many communities around the country." This approach would address the climate crisis with the urgency it demands while also addressing the immediate needs of workers who will be laid off or have hours reduced because of shutdowns.

Rather than seeing the clean energy transition stall, such an approach could jump-start it, while also stimulating the economy. Governments drive more than 70 percent of global energy investments, and recovery plans could shift those investments as well as include new large-scale investments to turbocharge the development, deployment and integration of clean energy technologies. As Fatih Birol, the executive director of the International Energy Agency, recently pointed out, the drop in oil prices also offers an opportunity for countries around the world to lower or remove subsidies for fossil fuel consumption, which disproportionately line the pockets of wealthy individuals and corporations with money that could go to education, health care or clean energy projects.

There are, of course, more radical policy interventions that could improve the health of the planet, our communities and our lives. Adopting a 32-hour workweek in the United States could lower emissions and vastly improve the quality of American life. It's unlikely we will see a four-day workweek anytime soon, but the profound disruptions of the pandemic provide a rare opportunity, even in the midst of great suffering, for rewiring our sense of what is possible in American society. Maybe the rupture caused by "shelter in place" orders provides a glimpse of what work is "essential" to society — care work, education and food distribution. Maybe it offers a glimpse, distorted though it may be, of what life might be like if we all went to work a little less.

A best-case outcome might include a rethinking of the social contract that helps protect and provide for the most vulnerable members of society at a time of increasing risk. We need to ask: What does a government owe to its people? The climate crisis has already demonstrated that the way our societies and economies are organized is unsustainable on a planet of finite resources. And as people face increasing and unevenly distributed climate risk, it is reasonable to wonder what sort of support we can expect from our government. When your community is in crisis, how will your government respond? The pandemic is a gut-wrenching reality check.

The crushing blows of the coronavirus pandemic, like those of the climate crisis, will be felt hardest by our most vulnerable populations — the poor, the elderly, the homeless, the stateless, the incarcerated, and the precariously employed — while international corporations driven by the logics of profit and endless growth to seek new markets, cheap labor, and what the sociologist Jason Moore has called “cheap nature,” thereby connecting the world and helping create the conditions for crisis, will most likely remain relatively protected.

The new coronavirus spread through the activity of global markets, and it remains to be seen whether we can respond to this crisis without relying on and reinforcing the same market logics that got us into this mess. Rather, to face the profound challenges of pandemics — of which this coronavirus will not be the last — as well as the threat of climate change, to survive and even flourish on this interconnected planet, we have to learn to subordinate the needs of the market to our own needs.

It is tempting to say that humans are a pox on the Earth. That where we recede, nature rebounds. When images of dolphins and swans supposedly appearing in newly clear Venice canals popped up on social media, it was easy to believe (though it was not entirely true) that the virus had forced people indoors and “nature” had recovered in our absence. This is the wrong climate lesson to take from the pandemic.

Humans are part of nature, not separate from it, and human activity that hurts the environment also hurts us. In China, just two months of reduced pollution is likely to have saved the lives of 4,000 children under the age of 5 and 73,000 adults over the age of 70, writes Marshall Burke, an assistant professor in Stanford’s earth system science department. Perhaps the real question is not whether the virus is “good” or “bad” for climate, or whether rich people will take fewer airplane flights, but whether we can create a functioning economy that supports people without threatening life on Earth, including our own.

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