Will SARS-CoV-2 have a long-term impact on the climate?

Enlarge / China has seen pollution levels plunge.

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COVID-19 is bad for human activity and enterprise. Human activity and enterprise is bad for the environment. So since our present situation reduces human activity and enterprise, is COVID-19 good for the environment?

The cessation of manufacturing and transportation in Hubei province has caused a drop in air pollution levels all over China so dramatic—emissions were estimated to be down 25 percent—that the relative dearth of both nitrogen dioxide and carbon dioxide in the air can be observed from space. Most of the effect came from a sharp drop in coal burning, which still provides the bulk of energy in China. Coal is used to heat homes in rural areas there, but also to fuel power plants and industry.

However, pollution—much like the virus itself—may come roaring back after the lockdowns are lifted. This "revenge pollution" can easily negate the temporary drop in emissions we are now seeing. That's exactly what happened in China in 2009, when the Chinese government responded to the global financial crisis with an enormous stimulus package that funded large-scale infrastructure type projects.

Similar reductions in emissions could be seen in the US.

Fewer people are commuting, true, but they could use some of the energy they're saving by heating or cooling the homes they're now working from and buying crap online. As with China in 2009, efforts to restart the economy here will probably not have environmental concerns as their highest priority.

Already, there are alarming indicators that COVID-19 will serve our government as a distraction from their climate-change-denying (and promoting) agenda. On March 18, they held an oil and gas lease sale in the Gulf of Mexico. Trump is pushing through environmental rollbacks, some of which require a 30-day comment period (there can be no public hearings because of the virus). If you have other things on your mind in the next month: sorry. And perhaps most distressingly, the EPA has relaxed its environmental standards along with the requirement for monitoring to ensure that those standards are being upheld, which essentially gives companies the ability to legally pollute air and water with impunity.

Scaling back

The mass cancellation of flights and international conferences could lead to a reduction in carbon emissions by airlines, and this one might actually stick. All the way back in the halcyon days of 2016, a hundred and ninety-two countries agreed in a UN brokered deal to hold airline emissions to 2020 levels, whatever they may be. If they go over, the airlines will have to offset the difference by funding green projects.

Now they might be held to this artificially depressed level of emissions caused by COVID-19's interference in everyone's travel plans. And if people learn from this experience that they don't have to fly quite as much as they thought, then perhaps airline emissions will stay down. There was mention in the original agreement about "abnormal levels" in 2020, so it is unclear how this will play out. But airline travel only accounts for about 2.5 percent of global emissions.

As many businesses shut down or dramatically scale back, their demand for power drops. This could be good news, because their demand for fossil fuels will drop. But their demand for renewables is dropping as well. And whenever these businesses get to ramp back up, some might maintain their commitments to using clean energy. But others might not. The solar industry has already needed to scale back both because of the decrease in demand and because the supply chain for solar panels goes back to China.

Complicating matters further, the sudden drop in gasoline use is coming in the midst of an oil price war. Should prices stay depressed, they could lead to the purchase of less fuel-efficient cars once the restrictions are lifted.

Not just economics

In addition to the direct environmental effects, environmental research is also floundering as nonessential workers must stay home. Experiments that have been in process for years, taking sea and air and soil samples and drilling ice cores all over the globe, will either be halted or at least interrupted. We will have large gaps in the environmental data for as long as this lasts. And after that, researchers are afraid that their funding for further environmental studies will dry up since they haven’t published any results.

So in the end, will COVID-19 be good for the environment or bad? The last US Energy Information Administration’s last Short Term Energy Outlook was released on March 18—so basically a lifetime ago—and is therefore moot. Their next outlook, due out April 7, will contain their first estimate of the pandemic’s impact on emissions and oil prices. But like much else about the virus—the death toll, for instance—we can’t know its ultimate effect on the climate until the pandemic has run its course. And just as with the virus’ effect on human health, its ultimate effect on the climate

depends largely on how governments deal with it.

This global crisis is forcing us—in a cruel way, and against our will—to reconsider some of our penchant for damaging behaviors. Hopefully we will be able to take this collective opportunity to reassess, as a society, if we truly need to restart them.

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