

Op-Ed To help stop global warming, curb short-lived pollutants



People walk through Beijing wearing masks on Dec. 22, a heavy pollution evening. (Lintao Zhang / Getty Images)

By **Veerabhadran Ramanathan and Daniel Press**

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Among climate scientists, the consensus is that we must become carbon-neutral by 2050 to avoid catastrophic environmental disruptions. Negotiators at the recent summit in Paris accordingly focused on curbing carbon dioxide emissions.

There's a major problem, however, with a CO₂-centric strategy. Because carbon dioxide remains in the atmosphere for a century or more, and because we won't abandon fossil fuels overnight, neutrality by 2050 simply isn't good enough to keep the Earth from warming 2 degrees Celsius — the generally agreed-upon limit — much less the ambitious goal of 1.5 degrees C that many nations support.

If we're serious about preventing or at least slowing climate change, we have to broaden our hit list; even as we move toward carbon neutrality, we must also restrict methane, carbon soot, ozone and

hydrofluorocarbon coolants. These pollutants are about 25 to 4,000 times more potent warmers than carbon dioxide, but they remain in the atmosphere from mere days in the case of carbon soot to 15 years in the case of HFCs.

Curbing the emissions of these short-lived climate pollutants, or SLCPs, unlike curbing carbon emissions, will have an immediate effect and can dramatically slow global warming within a few decades.

To put real numbers on it: If we reduce our emissions of methane 50%, black carbon 90% and fully replace HFCs by 2030, then we'll cut in half projected global warming over the next 35 years. These steps will delay environmental disaster and give us time we desperately need to radically change our energy diet.

Existing technologies, clean alternatives and regulatory mechanisms such as the 1987 Montreal Protocol that have proved effective for other climate pollutants can be quickly repurposed to deal with SLCPs.

In November, the 197 parties to the Montreal Protocol agreed to work toward an HFC amendment in 2016. Some parts of the world aren't waiting. India and Pakistan committed to phase down HFCs. Mexico has pledged to cut SLCPs 25% by 2030. California has already cut its carbon soot and ozone-forming gases 90% and is on its way to curbing all four SLCPs.

There's no downside to this approach. By curbing short-lived pollutants, not only will we obtain short-term relief from rapid warming, but we will also slow sea-level rise, increase crop yields and score a major victory for public health. Indoor and outdoor pollution today causes more than 7 million premature deaths annually. Curbing SLCPs can benefit us now, saving potentially 40 million lives over the next 20 years.

What we have in front of us isn't a choice between pulling lever one (carbon dioxide) or lever two (SLCPs); it's crucial that we pull both levers with all of our collective might. We have a moral imperative to act immediately with everything at our disposal, not only because there's no Planet B — as environmental activists put it — but because climate change seriously harms human well-being.

Beijing's air quality index hit 253 this month, registering in the “very unhealthy” zone. The last time Los Angeles County reached that level was in 1991. Many cities around the world have reduced urban air pollution using technologies and rules that have stood the test of time, while constantly evolving. California is already pulling both levers, while its population and its economy are growing and its people are breathing cleaner air.

By acting unilaterally or in small alliances, it's possible to make real progress on climate change now, above and beyond what the Paris agreement calls for. We have the levers; we just need to pull them.

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