

CHICHILNISKY AND POLYCHRONIOU

# While leaders talk in Paris, carbon-negative tech could save the planet

**GRACIELA CHICHILNISKY And C.J. POLYCHRONIOU**

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*Graciela Chichilnisky is professor of economics and statistics at Columbia University and the creator and author of the Kyoto Protocol Carbon Market. She is CEO and co-founder of Global Thermostat. C.J. Polychroniou is a political economist who has taught and worked in universities and research institutes in Europe and the United States.*

Since the adoption of the Kyoto Protocol in 1997, the issue of climate change has increasingly entered the public consciousness, but public policy has lagged behind. Too many world political leaders huff and puff but do virtually nothing to tackle the greatest threat facing humanity today.

Unfortunately, the ongoing Paris climate-change talks (COP21) seem to constitute yet another repetition in the rhetoric of immediacy, and another round of a ritual of inaction. Virtually all the world leaders gathered in France underline the point of climate change being at a breaking point, yet the possibilities of agreeing on an effective global strategy to counter the potential catastrophe remain slim at best.

This is ironic, since there is a solution to the climate-change challenge, one that should be acceptable to both rich and poor nations. It lies with new, innovative, available technologies that are capable of destroying or capturing emissions from the air.

The problem all along has been to find a solution that effectively tackles global warming and climate change without sacrificing growth. This was the point made by Indian Prime Minister Narendra Modi on the opening day of COP21 in Paris when he spoke of “climate justice” instead of climate change. His position was clear: The emissions issue must not stand in the way of growth for developing countries. Why should they pay the price for the damage caused to the environment by the advanced countries that have been the major emission polluters since the dawn of the industrial revolution?

But like the rest, Mr. Modi seems unaware that carbon-negative technology is our strongest ally in this titanic fight. Leaders haven't kept up with changes in carbon technology, such as the one employed by Global Thermostat, a company formed in 2010 by one of us (Graciela Chichilnisky) and physicist Peter Eisenberger. Global Thermostat, currently based in Silicon Valley, captures carbon dioxide from the air and then reuses it in a variety of products, cleaning up the air while contributing

to further growth.

Most people are aware of an older carbon-capture technology, carbon capture and storage (CCS), but it is very expensive and at best carbon neutral. CCS does not remove carbon that is already in the atmosphere, as the Intergovernmental Panel on Climate Change (IPCC) 2013 Fifth Assessment Report says must happen in order to avert catastrophic climate change.

There are other carbon-negative technologies, such as CarbonCure, which sequesters CO<sub>2</sub> into concrete, but it does not remove carbon from the air. There have been other initial efforts in this direction, such as carbon engineering, which is supported by Bill Gates. Carbon engineering is not fully demonstrated and has proven very expensive so far, leaving Global Thermostat as the lone contender.

Carbon-negative tech is the most promising way out of the climate-change nightmare. Global deployment of CO<sub>2</sub> removal strategies are not only feasible, but critical.

Carbon-negative technologies still have a way to go in terms of public acceptance, though. The Global Thermostat plant needs to be expanded on a global scale for an effective treatment of the damage caused to the environment by output emissions. But they are already a reality, and the scientific and policy-making community need to work in tandem in order to save the planet.

Cap-and-trade policies alone are not enough, in themselves, to control greenhouse-gas emissions. But human ingenuity is another story. The future still exists, but we have to do more than dream about it.