

Promise by U.S. and China to phase-out HFCs a welcome step to reduce climate pollutants

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On June 8, 2013, United States President Barack Obama and Chinese President Xi Jinping pledged to cut production of hydrochlorofluorocarbons (HFCs). This chemical, used in refrigeration and insulating foams, is already being replaced in some categories with cost-effective substitutes.

The agreement will greatly bolster calls by a growing number of countries to include HFCs within the 1987 Montreal Protocol.

The single most successful global environmental treaty remains the 1987 Montreal Protocol. The treaty was signed by countries working in step with the private sector and aimed to protect the Earth's stratospheric ozone from destructive chemicals such as chlorofluorocarbons (CFCs), once used widely in aerosols and other applications.

In the past 25 years, the Montreal Protocol has been a model in merging science, finance, and the cooperation and leadership of companies to phase out not only CFCs, but a generation of other ozone-depleting chemicals. Because of the Montreal Protocol, the significant destruction of the Earth's stratospheric ozone layer was averted in the 1980s and is on the path to full recovery by 2075. In turn, this will lead to the prevention of literally millions of cases of skin cancer around the world—an estimated six million in the United States alone—as well as other human health and environmental benefits.

Along the way, the Montreal Protocol has also become the single most successful international instrument in reducing climate pollutants. The chemical composition of ozone-depleting substances means that they also act as powerful agents, on a per molecule basis, in atmospheric warming. Therefore, by reducing and banning those ozone-depleting substances, the Montreal Protocol has done far more—as much as eight times more—to reduce climate pollutants than the Kyoto Protocol, according to estimates by the Institute of Governance and Sustainable Development. In fact, the Montreal Protocol has led to the avoidance of more than 200 Gigaton (Gt) of carbon dioxide (CO₂) equivalent from 1990 to 2010, compared to approximately 5-10 Gt CO₂ equivalent that the Kyoto Protocol is projected to achieve during its first commitment period of 2008 to 2012.

A growing group of countries are now looking to the Montreal Protocol as a means to accelerate actions to combat climate pollutants. A specific proposal that is gaining ground is to include within the Montreal framework a new category of particularly destructive ozone-depleting substances—hydrofluorocarbons (HFCs).

The inclusion of HFCs in the Montreal Protocol would be the equivalent of reducing over 100 billion tons of carbon dioxide by 2050. And the cost of reduction is estimated to be just pennies per ton. The proposal to include HFCs within the Montreal Protocol has the support of over 100 countries, including Canada, the U.S. and Mexico. China's support will strengthen the proposal, which will be considered at the 25th meeting of the parties to the Montreal Protocol in Bangkok, this October.

The focus on HFCs is an example of a growing interest to tackle other short-lived climate pollutants, such as black carbon and methane, which stay in the atmosphere for 15 to 30 years—compared with up to 50,000 years for some greenhouse gases.

In February 2013, the U.S. State Department launched the Climate and Clean Air Coalition (CCAC) to fast-track and commercialize HFC substitutes. Canada and more than 20 other countries are strong advocates, as along with non-governmental organizations such as IISD, which is also a member of the CCAC.

The Montreal Protocol shows that progress can be made in practical ways, away from the media spotlight of negotiations, with actions anchored in science. We can accelerate concrete, measurable and cost-effective actions to reduce short-lived climate pollutants and to marry those efforts with current work in reducing greenhouse gases like carbon dioxide.

With the 400 parts per million carbon dioxide threshold already passed, we need to build upon these examples of success to urgently tackle climate pollutants.

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