Institute for Governance & Sustainable Development

Contact: Candice Wu: +1.202.338.1300, candicewu@igsd.org

Reducing Production of Super Greenhouse Gas Under Montreal Protocol Is Critical Climate Strategy

Washington, D.C., 24 February 2012 – Phasing down the production and use of hydrofluorocarbons (HFCs) under the Montreal Protocol ozone treaty is one of the most effective climate protection strategies available to the world today: it could substantially eliminate emissions of one of the fastest growing greenhouse gases globally. Low-climate-impact substitutes for HFCs are already available and could be quickly adopted. This is the conclusion of a paper published today in the prestigious journal SCIENCE by Dr. Guus Velders of the Netherlands and a team of international scientists, including Nobel Laureate Dr. Mario Molina.

According to the authors, many HFCs have high global warming potential and their use is increasing by 10 to 15% annually. This makes this man-made chemical the fastest growing greenhouse gas in the United States and many other countries. If not controlled, HFCs, which currently account for only 1% of total climate forcing from long-lived GHGs, could constitute up to 27% of climate forcing of CO_2 by mid-century. The growth in HFCs is an unintended and negative consequence of the previous phase-out of chlorofluorocarbons (CFCs) and the ongoing phase-out of hydroclorofluorocarbon (HCFCs) under the Montreal Protocol.

The Montreal Protocol is widely considered the most effective environmental treaty created to date. It is the appropriate venue for controlling HFCs, according to the authors of the SCIENCE paper, because this treaty already has the relevant infrastructure to accomplish a phase down of HFC, including a dedicated funding mechanism, expert panels to review the science and the availability and cost of safer substitutes, and national ozone officers in every country of the world to ensure effective implementation of any phase-down. The Montreal Protocol has all UN members as parties, and all consider the treaty to be fair. The Montreal Protocol is already the world's most effective climate treaty having offset the equivalent of 10 billion tons of CO_2 per year from 1990 to 2010 through the phase out of CFCs and HCFCs. This is a benefit, the authors point out, that could be entirely cancelled if HFC emissions are allowed to increase unabated.

"The large climate benefits of the Montreal Protocol can be preserved by limiting the expected growth in HFCs," stated lead author Dr. Velders. "This may be accomplished by the Montreal Protocol itself, using its proven expert panels and experienced networks in every country of the world."

In 2009 the Federated States of Micronesia submitted an amendment to phase down HFCs under the Montreal Protocol, to protect countries most vulnerable to climate impacts, including low-lying islands and coastal countries already suffering from accelerating sea level rise, and agriculture-dependent countries of Asia and Africa already suffering drought and shifting rainfall. The United States, Canada, and Mexico followed with a similar proposal. The proposals would reduce 85-90% of HFC production and use, achieving climate mitigation equivalent to 100 billion tones of CO_2 by 2050.

"This new paper in SCIENCE confirms that the HFC amendment is the biggest, fastest, and most politically feasible strategy the world has to mitigate climate change today," said Durwood Zaelke, President of the Institute for Governance & Sustainable Development. "Indeed, the Montreal Protocol amendment could

help provide the momentum for a broader climate deal under the UN Framework Convention on Climate Change by showing the world that climate solutions can be fast, fair, low cost, and effective."

Since 2010, 108 nations have signed on to a declaration supporting action to reduce HFCs. However, a small coalition of countries led by China and India has thus far prevented passage of the HFC amendment. "China holds the key to the amendment and the safety of the most vulnerable peoples and places for the next 30 to 60 years," said Zaelke. "The question is whether China is ready to be a global leader and help the world's most vulnerable countries."

While efforts to amend the Montreal Protocol are continuing, voluntary efforts to reduce HFCs use are also being pursued. Last week, on 16 February, a coalition of six nations from both the developing and developed world--US, Mexico, Canada, Sweden, Bangladesh and Ghana--launched a new initiative on Climate and Clean Air to Reduce Short-lived Climate Pollutants. These include HFCs, as well as two local air pollutants, black carbon and methane, the key precursor of ground-level ozone.

The paper is available here: *Preserving Montreal Protocol Climate Benefits by Limiting HFCs*

For further information see:

- Molina M., Zaelke D., Sarma K., Anderson S., Ramanthan V., & Kaniaru D., *Reducing abrupt climate change risk using the Montreal Protocol and other regulatory actions to complement cuts in CO2 emissions*, PROC NAT. ACAD. SCI. (2009).
- Molina M. & Zaelke D., *How to cut climate change in half*, THE HILL (Feb 14, 2012).

###

2300 Wisconsin Ave. NW • Suite 300-B • Washington DC • 20007
ph: 202 338 1300 fax: 202 338 1810 email: info@igsd.org