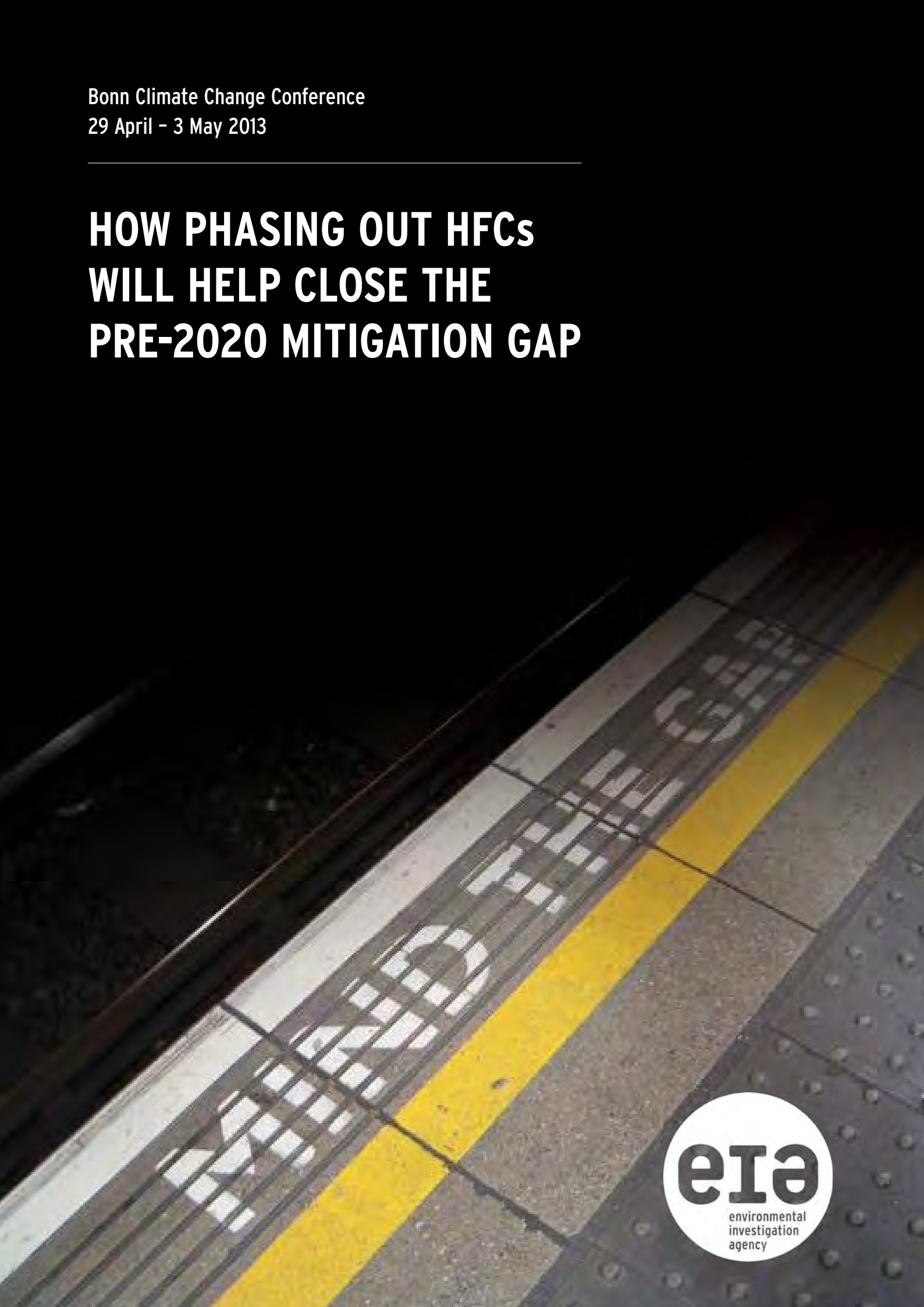
Bonn Climate Change Conference
29 April – 3 May 2013

HOW PHASING OUT HFCs WILL HELP CLOSE THE PRE-2020 MITIGATION GAP



environmental investigation agency

EIA's climate mitigation campaign is primarily focused on HFCs (hydrofluorocarbons), third generation gases produced by chemical manufacturers in response to the phase-out of ozone-depleting CFCs and HCFCs under the Montreal Protocol.

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ABOUT EIA

EIA is an independent campaigning organisation committed to bringing about change that protects the natural world from environmental crime and abuse. As part of our work, we have undertaken groundbreaking investigations into the illegal trade in ozone depleting substances (ODS) and have been closely involved in the international ozone and climate negotiations for well over a decade.

Used in refrigeration and air-conditioning, these super greenhouse gases (so-called because their Global Warming Potentials [GWP] are often thousands of times higher than CO_2) are the fastest growing source of greenhouse gas emissions.

THE GIGATONNE GAP – THE GLOBAL CLIMATE SYSTEM EDGES CLOSER TO THE BRINK

UNEP's *Emissions Gap Report 2012* shows that there is a gap of between 8-13 gigatonnes of CO_2-equivalent emissions ($GtCO_2e$) between the emissions reductions required to limit global temperature rise to 2°C by 2020 and Parties' current pledges. This represents a sizeable increase compared even to UNEP's 2011 report, which estimated the gap to be between 6-11 $GtCO_2e$.[1] What is more, as noted by UNEP, the gap is likely to be at the high end of the 2012 estimated range.[2]

At the UNFCCC inter-sessional meeting in Bangkok in autumn 2012, the European Union proposed formalising a set of International Cooperative Initiatives (ICIs) that *"have demonstrable potential, in addition to existing pledges, to close the emissions gap between now and 2020"*.[3] These ICIs are meant to be additional activities that countries can execute in the near term to close the "gigatonne gap" before the new legal framework is negotiated in 2015, and implemented in 2020. Of all the options to tackle climate change in the short term, addressing HFCs under the Montreal Protocol is the most tangible prospect for immediate, cost-effective action to achieve significant reductions.

HFCS – UNDERSTANDING THE PROBLEM

HFCs are man-made fluorinated gases (F-gases) developed and commercialised to replace CFCs, HCFCs and other chemicals that deplete the ozone layer. Unlike CFCs and HCFCs, HFCs do not destroy ozone; however, they are powerful greenhouse gases (GHGs), with global warming potentials hundreds and thousands of times more powerful than carbon dioxide (CO_2).[4] HFCs are primarily used in refrigeration, air conditioning, foam blowing, aerosols, fire protection and solvents and as indicated by figure 1 their consumption increased significantly after 1990 and is projected to continue to rise. However, climate-friendly alternative refrigerants and technologies are available, and new ones are being developed, which means that HFCs can be phased out over time.[5]

HFCs currently represent around 1% of global GHG emissions.[6] Although their contribution to climate forcing is still relatively small, it is expected to soar in the coming decades, with emissions of HFCs increasing at a rate of 10-15% per year.[7] Unless action is taken, global HFC emissions could reach 5.5-8.8 $GtCO_2e$ per year in 2050, equivalent to 9-19% of projected global CO_2 emissions under a business-as-usual scenario.[8] This increase could even be as high as 28-45% compared with projected CO_2 emissions in a 450ppm CO_2 stabilization scenario. A large share of the increase will take place in developing countries, where emissions are projected to be as much as 800% greater than developed countries' emissions by 2050.[9]

MONTREAL PROTOCOL HFC AMENDMENT PROPOSALS

Through the ongoing phase-out of CFCs and HCFCs, the Montreal Protocol has already done more to mitigate global warming than all other international efforts combined.[10] However, these significant climate benefits could be offset by the projected growth in HFC emissions, which were commercialized due to the Montreal Protocol, over the coming decades unless action is taken now to curb their use.[11]

Proposals to amend the Montreal Protocol to regulate production and use of HFCs have been filed every year since 2009 by Micronesia, and by Canada, Mexico and the United States.[12] Since that time, and despite the formal support of over half of the Parties to the Montreal Protocol for action to regulate HFCs, progress on the so-called "Amendment Proposals" has been repeatedly blocked.

The countries blocking the Amendment Proposals frequently invoke the UNFCCC as being a more appropriate forum to discuss HFCs. However, while it is true that HFC *emissions* are included in the Kyoto basket of greenhouse gases, *production and consumption* are not. In fact, there is a clear legal imperative for their production and consumption to be dealt with under the Montreal Protocol as HFCs were introduced as a direct result of the phase-out of ODS in the exact sectors that previously used them, and the Montreal Protocol is obligated to prevent any "adverse effects" being caused by the phase-out of ODS.[13] Moreover, the amendment proposal clearly states in its text that "This Amendment is not intended to have the effect of excepting hydrofluorocarbons from the scope of the commitments contained in Articles 4 and 12 of the United Nations Framework Convention on Climate Change and in Articles 2, 5, 7 and 10 of its Kyoto Protocol that apply to "greenhouse gases not controlled by the Montreal Protocol." Each party to this Amendment shall continue to apply the provisions of the United Nations Framework Convention on Climate Change and its Kyoto Protocol identified above to HFCs".[14]

The Montreal Protocol is uniquely positioned to adopt and implement a phase-out of HFCs. Often referred to as the most successful environmental accord in history, it has universal membership and has reduced a staggering 98% of 97 different chemicals responsible for ozone depletion.[15]



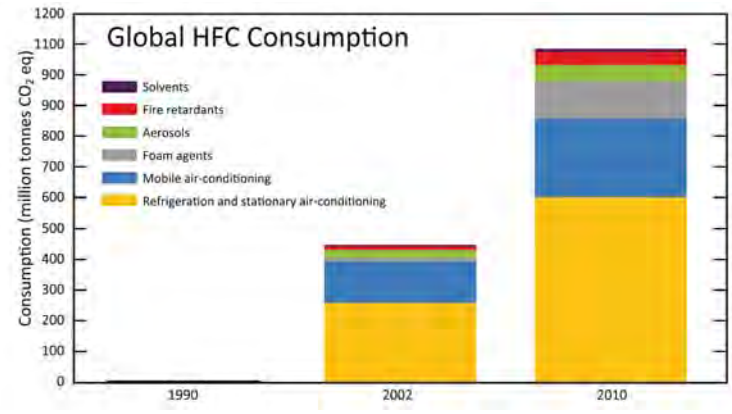


FIGURE 1: UNEP (2011), HFCs: A Critical Link in Protecting Climate and the Ozone Layer, p.16 available at http://www.unep.org/dewa/portals/67/pdf/HFC_report.pdf

RECOMMENDATIONS

- **Concrete outcomes:** In Bonn, Parties must establish a process that will result in real policy outcomes, such as urging the Montreal Protocol to undertake a phase-down of the production and consumption of HFCs, including identification of mitigation actions which can be taken with immediate effect and the elaboration of a strategy with milestones up to 2020 specifying projected emissions savings at each stage of the process.
- **Enhanced cooperation between climate and ozone negotiators:** Technical experts from the Ozone Secretariat and other Montreal Protocol bodies should be invited to provide input and evidence at workshops focussing on pre-2020 ambition throughout 2013. The Climate and Clean Air Coalition might also provide a useful forum for more in-depth discussions in parallel to UNFCCC meetings.
- **A CoP decision to urge the Montreal Protocol to undertake a global phase-down of the production and consumption of HFCs:** A CoP decision at CoP 19 in Warsaw must urge the Montreal Protocol to undertake a global phase-down of the production and consumption of HFCs, recognising that emissions of these substances will remain covered by the UNFCCC.greed;
- **A high level statement calling for the Montreal Protocol to immediately begin a phase-down of HFCs:** At the extraordinary climate change summit in 2014 (announced by UN Secretary-General Ban Ki-moon at Doha), world leaders must call for the Montreal Protocol to immediately institute a global phase-down of HFCs at MoP 26.

CONCLUSION

The UNFCCC acknowledges in its preamble "that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response".[16] Any real prospect for arresting global warming will require use of all available international resources and mechanisms. A phase-down of the super greenhouse gases, HFCs, would prevent the release of 2.2 Gt CO_2e by 2020 and almost 100 Gt CO_2e by 2050.[17]

World leaders at the Rio+20 summit[18] and the 2012 G8 summit,[19] expressed their support for a phase-down in HFC consumption and production in 2012 in recognition of the urgency of the issue. This phase-down can and should begin immediately under the auspices of the Montreal Protocol. This action would in no way diminish the UNFCCC's ability or authority to regulate HFC emissions, but rather create a parallel and reinforcing process to those efforts. However, failure to act on this opportunity will undermine the very objective for which the UNFCCC was established, that is "to achieve... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

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