## Summary of Testimony Delivered by Durwood Zaelke\* to Members of the European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI)

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EU leadership on climate and its ambition to strengthen current climate commitments provides optimism for the world that progress is possible. This optimism is important because solving climate change may be more difficult following Japan's nuclear accidents. At the same time, it is more urgent to solve climate change now, before climate impacts threaten not only our physical environment but also our ability to govern. These impacts will include floods and shifting Monsoons, droughts and fires, loss of Arctic ice and its reflective shield, disintegrating glaciers in the Himalayas and other mountains, increasingly erratic and severe weather, and rising storm surges and sea levels.

We need urgent action to aggressively cut CO<sub>2</sub> emissions, which represent 50% of radiative forcing since 1750. CO<sub>2</sub> is profoundly long-lasting, with a substantial part causing warming for millennia. Steep cuts need to be made now. But even cutting CO<sub>2</sub> to zero, while essential, will not produce cooling for at least 1,000 years.

To stay below the 2°C guardrail for the most dangerous of climate impacts, including possible abrupt climate changes, we also need fast and aggressive action to cut the other 50% of climate forcing. The non-CO<sub>2</sub> half of forcing is caused by hydrofluorocarbons (HFCs), a synthetic gas made for refrigeration and making insulating foams, and two local air pollutants, black carbon soot, and tropospheric ozone, and its precursor gas, methane.

Fast-action mitigation can cut these local air pollutants quickly using existing technologies, laws and institutions in most cases. This will cut the rate of global warming in half for the next 30 years, and by two-thirds in the Arctic. Fast-action mitigation to cut these air pollutants—together with cuts to CO<sub>2</sub>—can keep the Planet below the 2°C guardrail for 60 or more years. Adding cuts to HFCs can delay 2°C even longer. Cutting black carbon soot also can save 2.4 million lives a year. Cutting tropospheric ozone can reduce crop damage and help restore the ability of plants to absorb and store CO<sub>2</sub>.

The Montreal Protocol should be enlisted to phase out the upstream production of HFCs with high GWPs. (Downstream emissions of HFCs should remain under the Kyoto Protocol.) The Montreal Protocol is the best environmental treaty ever created, having phased out 98% of 96 chemicals that damage the stratospheric ozone layer (and the climate system in many cases), and putting it on the path to recovery to pre-1980 levels by mid-century.

At the same time, the Montreal Protocol has provided 135 billion tonnes of CO<sub>2</sub>-eq. in climate mitigation between 1990 and 2010, at a cost to the public of US \$2.9 billion. The Montreal Protocol could provide another 100 or more billion tonnes of CO<sub>2</sub>-eq. in climate mitigation by reducing HFCs. The total cost to the public would be \$5 to 10 billion, making this fast-action mitigation strategy extremely cost-effective, at \$0.05 to \$0.10 per tonne of CO<sub>2</sub>-eq.

The EU should provide the same leadership it has in the past under the Montreal Protocol, to lead the way in strengthening the treaty's climate protection potential. We cannot rely on the UNFCCC to be the only global treaty that addresses climate change. EU leadership also should ensure donor countries provide adequate funding for phasing out high-GWP HFCs in the future, as well as for completing the current accelerated phase-out of HCFCs. The EU ban on credits from HFC-23 destruction projects also is important. An EU bilateral effort could fund the incremental cost of destruction to ensure these damaging emissions are halted as soon as possible.

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## References:

- Mario Molina, Durwood Zaelke, K. Madhava Sarma, Stephen O. Andersen, Veerabhadran Ramanathan, and Donald Kaniaru. Reducing abrupt climate change risk using the Montreal Protocol and other regulatory actions to complement cuts in CO<sub>2</sub> emissions, in Tipping Elements in the Earth System (Special Feature), PROC NATL ACAD SCI (Hans Joachim Schellnhuber ed., Dec. 2009).
- UNEP and WMO, Integrated Assessment of Black Carbon and Tropospheric Ozone: Summary for Decision Makers (2011).

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