

Philippines' contribution to HCFC phase down contributes to global efforts against ozone depletion



A recent report published in Nature Climate Change, led by researchers from the University of Bristol, highlights a remarkable recovery of the ozone layer and a significant decline in atmospheric levels of hydrochlorofluorocarbons (HCFCs), potent ozone-depleting substances (ODS).

The study attributes these notable reductions in HCFCs, which are also harmful greenhouse gases (GHGs), to the Montreal Protocol. This international agreement controls the production and use of ODS, once commonly used in products like refrigerators, aerosol sprays, foams, and packaging. The study confirms the success of historic regulations in limiting their production and use.

The Philippines has been a dedicated signatory of the Montreal Protocol since September 14, 1988, and ratified the treaty on March 21, 1993.

The Department of Environment and Natural Resources (DENR), through the Philippine Ozone Desk (POD), ensures the country's compliance with the Montreal Protocol and promotes the protection of the ozone layer. Funded by the Multilateral Fund through the Environmental Management Bureau (EMB), the POD serves as the national coordinator of programs for the implementation of the Montreal Protocol.

The international study reveals that the total amount of ozone-depleting chlorine in all HCFCs peaked in 2021, five years earlier than predicted. Despite a less than 1% drop between 2021 and 2023, HCFC emissions are clearly on a downward trend. Lead author Luke Western from the University of Bristol's School of Chemistry emphasizes, "Without the Montreal Protocol, this success would not have been possible. It is a resounding endorsement of multi-

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-lateral commitments to combat stratospheric ozone depletion, with additional benefits in tackling human-induced climate change.”

Co-author Stefan Reimann, an Empa scientist, calls the study a “milestone in the history of measures to contain the ozone hole.” He notes that even the replacement products for more ozone-depleting CFCs are now decreasing, five years ahead of expectations. This achievement is due to the continuous tightening of international protocols and their verification through atmospheric measurements.

The study relies on high-precision measurements from globally distributed atmospheric observatories, using data from the Advanced Global Atmospheric Gases Experiment (AGAGE) and the National Atmospheric and Oceanic Administration (NOAA) in the US, including measurements at the high-alpine research station on Jungfrauoch.

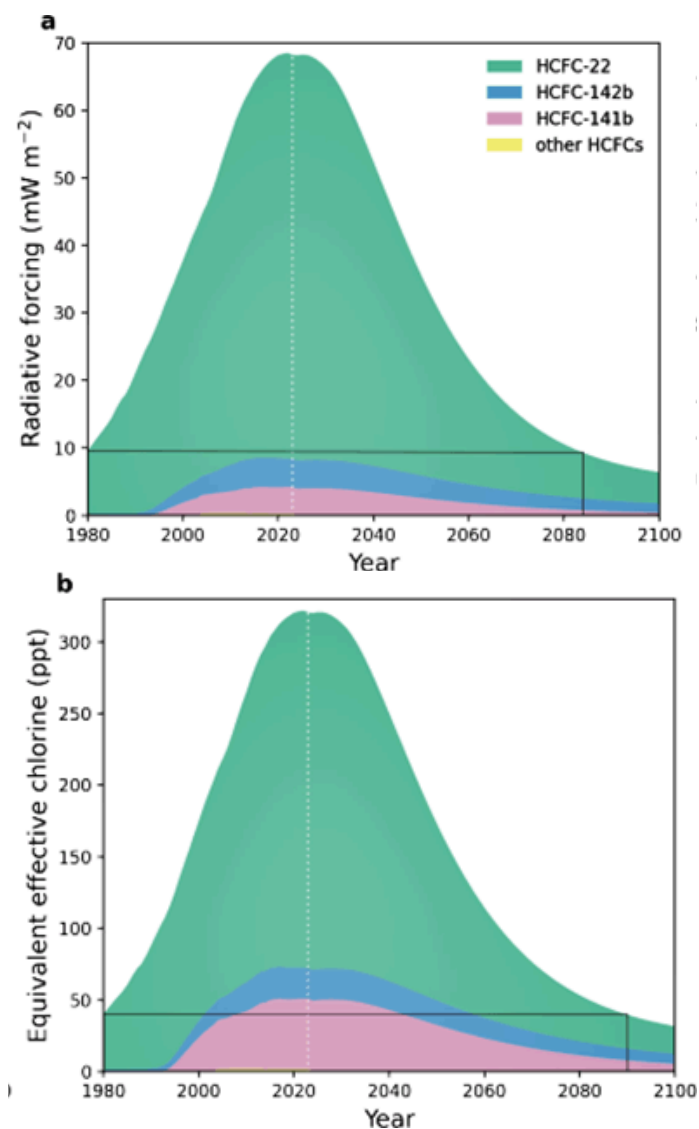
Co-author Martin Vollmer, an atmospheric scientist at Empa, states, “We use highly sensitive measurement techniques and thorough protocols to ensure the reliability of these observations.” NOAA scientist and co-author Isaac Vimont adds, “This study highlights the critical need for vigilant and proactive environmental monitoring to ensure controlled ozone-depleting and greenhouse gases follow a similar downward trend, protecting the planet for future generations.”

EMB Director Jacqueline Caanacan said, “The Philippines has contributed significantly to this global milestone through the effective implementation and operation of the Online Permitting and Monitoring System (OPMS).”

The system monitors the issuance of clearances for all ODS importations and ensures the registration compliance of dealers and service providers.

Additionally, the POD conducts information dissemination and awareness drives about the ozone layer and the negative effects of ODS, along with monitoring activities across the country to ensure compliance with the Montreal Protocol.

As the Montreal Protocol enters Phase 14, “the Philippines remains committed to crafting policies and creating activities that effectively achieve the goals of the international treaty,” Caanacan concluded.



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