

## PRESS STATEMENT



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## EIA RESPONSE TO NEW STUDY ESTIMATING IMPACT OF ILLEGAL CFC-11 ON OZONE HOLE RECOVERY

Washington DC – A [new paper published in Nature](#) on Thursday December 19, 2019 looks at the potential delay to the ozone hole recovery caused by unexpected CFC-11 emissions. After scientists reported major unexplained increase in the emissions of banned CFC-11 gas in the atmosphere last year, [investigators from the Environmental Investigation Agency based in Washington DC traced the emissions to illegal production and use of CFC-11 in the polyurethane foam sector in China.](#)

The new paper, [Delay in Recovery of the Antarctic Ozone Hole from Unexpected CFC-11 Emissions](#), estimates that the delay in ozone recovery could range from a few years, if immediate action to halt the emissions is successful, and up to as much as 18 years if emissions continue unabated.

Responding to the new findings, Avipsa Mahapatra, EIA Climate Campaign Lead said, “These findings show we cannot take full recovery of the ozone layer for granted. The climate and ozone impacts of the CFC-11 emissions are potentially massive, and similar incidents whether in China or elsewhere should be expected without institutional reforms to the Montreal Protocol.”

“The latest atmospheric data indicates emissions are starting to trend downward in response to enforcement actions. However, given the significant uncertainties in tracing back to the source of production, the effectiveness and sustainability of these enforcement actions so far remain debatable.”<sup>[1]</sup>

“Thanks to global pressure following scientific and investigative findings that uncovered hard evidence from the ground, China promptly carried out a nationwide enforcement effort that is ongoing. Some systemic changes have been put in place that include increasing law enforcement capacity at the local level and closer monitoring of plants producing carbon tetrachloride (CTC), a key feedstock substance used to make CFC-11.”

While the Parties to the Montreal Protocol have worked hard to take action, there remains a major gap in understanding of the actual CFC-11 production level and the amount now contained in new foam materials (the ‘bank’), which unless dealt with, will ultimately leak to the atmosphere.<sup>[2]</sup> This enormously impacts future emissions as blowing agent emissions during the foam manufacturing and blowing process, and the consequent amount of CFC-11 left in the foam product could vary widely.

EIA investigations procured samples of CFC-11 containing foam from illegal factories in China, which continue to be studied for further clues. “We are urging China to strengthen and enhance its enforcement efforts and undertake comprehensive testing of foams to better understand and prevent recurrence of such environmental crimes in future.”

Notes:

1. China has located only three illegal CFC-11 production sites, with relatively small capacities which could not account for the level of illegal CFC-11 production estimated by the Montreal Protocol's technology experts (40,000-70,000 tonnes per year).
2. The 2018 EIA report [\*Tip of the Iceberg\*](#) estimated this bank of CFC-11 in the foam products created up to 2017 could be equivalent to almost four billion tonnes of CO<sub>2</sub> (830,000 tonnes of CFC-11).

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