

Introducing



Climate Advisers is excited to announce the launch of the Global N₂O Hub, a new initiative that aims to drive international action on the third most important greenhouse gas, nitrous oxide (N₂O).

THE PROBLEM

N₂O is an extremely powerful greenhouse gas and ozone-depleting substance mostly emitted by agricultural and industrial activities. In addition to destroying the ozone layer, a kilogram of N₂O traps around 273 times more heat in the atmosphere than the same amount of carbon dioxide on a 100-year timescale. Nitrous oxide emissions are rising faster than in the worst-case emissions scenarios explored by the Intergovernmental Panel on Climate Change (IPCC). If emissions continue on their current trajectory, there will be no viable path to achieving the Paris Agreement's goal of limiting warming to 1.5°C.

ACTION STEPS

In the near term, Climate Advisers recommends three steps:

STEP ONE: OVERALL TARGET



A global coalition of countries should commit to a time bound, quantitative N₂O mitigation target similar to the [Global Methane Pledge](#). The exact nature of the pledge should be agreed collectively by participant countries. The [2024 Global Nitrous Oxide Assessment](#) reveals that with proper investment and policy frameworks, it is possible to reduce N₂O emissions 40 percent by 2050 without compromising food and nutrition security. This pledge should also cover a commitment to tackle nitrous oxide emissions in national climate plans such as the Nationally Determined Contributions (NDCs). In addition, countries should commit to taking an integrated approach to nitrogen management to avoid the kind of pollution swapping that can result from focusing narrowly on any single nitrogen compound.

STEP TWO: INDUSTRIAL SOURCES



Countries should commit to a near-term goal of eliminating industrial sources of N₂O emissions, which account for 5 percent of all N₂O emissions. [Industrial emissions](#) are far easier to abate than emissions from other sources, as technology already exists to support this and is ready to deploy. Industrial emissions are far easier to abate than emissions from other sources, as technology already exists to support this and is ready to deploy.

STEP THREE: FINANCE



World leaders should make a collective commitment to marshal the funding necessary to achieve these goals. This commitment could be modeled on [Mission Innovation](#), the public-private collaboration to increase public and private funding for clean energy innovation. Philanthropies will have a critical role to play here as well.

THE FUTURE: SOLUTIONS

These three steps by the international community would help catalyze a global effort to address the third most important greenhouse gas, thereby allowing the international community an opportunity to develop more comprehensive, equitable, and long-term solutions that would phase down N₂O emissions rapidly in line with global climate and sustainable development goals.

If you are interested in joining Climate Advisers in this work, please reach out to Mumukshu Patel (patel@climateadvisers.org) or Josh McBee (mcbree@climateadvisers.org).