

Credit: Camille Clerc



Fighting for cleaner air and a more stable climate

When it comes to climate change – the warming and climate modifications our planet is suffering due in part to greenhouse gases trapping too much heat inside the Earth's atmosphere – the finger is often pointed to carbon dioxide (CO₂). However emissions of carbon dioxide are only part of the problem. There are other substances, called short-lived pollutants, that we should pay attention to as well, especially because they could also be important in reducing air pollution.

Short-lived pollutants, which include tiny pollutant particles known as aerosols, remain in the atmosphere for a shorter time than carbon dioxide, but can have a significant effect on both the climate and air quality. Previous environmental policies have tended to separate the two issues, with measures that fight air pollution not always bringing climate benefits and vice-versa. Now a team of scientists from around Europe and China has shown that reducing emissions of short-lived pollutants can have a double benefit of improving air quality *and* reducing climate change.

The new measures to reduce emissions of short-lived pollutants would make the air cleaner, meaning that people would breathe healthier air and live longer. The measures would also make the climate more stable, with global temperatures not rising as much as expected in the next few decades.

While the researchers hope to see governments implement their measures, they caution that short-lived pollutants are only a small part of the climate change problem, and the governments must still work hard to reduce carbon dioxide emissions. Lead-scientist Andreas Stohl, from the Norwegian Institute of Air Research warns: “The project results clearly show that reductions in the emissions of short-lived species cannot replace CO₂ emission reductions.”

This is a kids' version of the European Geosciences Union (EGU) press release '[Curbing short-lived pollutants – a win-win for climate and air quality](http://www.egu.eu/education/planet-press/)'. It was written by Bárbara Ferreira (EGU Media and Communications Manager), reviewed for scientific content by Sam Illingworth (Lecturer, Manchester Metropolitan University, UK) and Kirsty Pringle (Research Fellow, University of Leeds, UK), and for educational content by Teresita Gravina (Teacher, Don Gnocchi High School, Maddaloni, Italy). For more information check: <http://www.egu.eu/education/planet-press/>.