

Building on EU legislation successes for air quality and climate

Research led by the University of Leeds has found that about 80,000 deaths are prevented each year by European Union policies and new technologies to reduce air pollution. The curbs on soot pollution have also directly benefited climate. Maintaining and strengthening existing air quality policy and developing new technologies that further drive down emissions will avoid further premature deaths.

Linking legislation with air quality and climate benefits

A unique study led by the University of Leeds has looked at effectiveness of specific EU policies to reduce air pollution across Europe.¹ The study considered policies to reduce emissions including EU regulations for the improvement in fuel quality and the adoption of European emissions standards in transport, along with technological advances to reduce emissions such as the introduction of particle filters and catalytic converters in vehicles.

EU policies led to a 35% reduction of fine particulate matter over the period 1970 to 2010.¹ Curbing soot/black carbon emissions that arise from diesel engines and wood burning also has significant parallel benefit for climate.² Such measures can be combined with greenhouse gas emission reduction to form a more comprehensive climate mitigation policy.³

The improvements in public health from reductions in air pollution brought about by EU legislation, saves an average of 80,000 lives each year across Europe.¹ To put this number in perspective, in 2011 slightly in excess of 400,000 premature deaths were attributed to particulate pollution over Europe. So EU policy has dramatically improved the health of European citizens.



Recommendations

- Air pollution does not recognise national borders. The improvements in air quality and human health shown in this research have been achieved by European countries acting together.
- Further legislation to curb soot particulates from diesel transport, especially from off road vehicles, and from wood burning will reduce climate warming.
- Acting on air pollution and greenhouse gas mitigation in tandem will help to meet the 1.5°C target set by the Paris agreement, bringing considerable co-benefits for health and quality of life.

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References

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2. Bond et al. (2013), [Bounding the role of black carbon in the climate system: A scientific assessment](#), Journal of Geophysical Research: Atmospheres, 118, 5380–5552.
3. Allen et al. (2016) [New use of global warming potentials to compare cumulative and short-lived climate pollutants](#), *Nature Climate Change*, 6, 773-776.

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