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[Dachzeile]

Clean Up Our Skies: On a New Commentary Piece in “Nature”

This December, the 20th United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) will be held in Lima, Peru. There climate change negotiations will focus on reducing emissions of carbon dioxide, the long-lived greenhouse gas primarily responsible for anthropogenic climate change. However, on the short-term, air pollutants that also have an influence on climate, known as short-lived climate forcing pollutants (SLCPs) should also be addressed. In a [just-released Nature commentary piece](#), an effort spearheaded by my colleague Julia Schmale, we argue that coordinated action on both climate change and air pollution is necessary. The focus of the UNFCCC negotiations on CO₂ is absolutely warranted. However, a siloed approach to air quality and climate mitigation can have some downsides.

There are strong linkages between air pollution and climate change, as air pollutants and greenhouse gases such as CO₂ are often emitted from the same sources. They are further linked through atmospheric processes, and their chemical and physical properties. Some of the characteristics mean that some ‘air pollutants’ also have direct and indirect effects on radiative forcing, contributing to global warming, but in some cases can also have cooling effects, while model projections also indicate that air quality targets will be harder to achieve under a changing climate. The feedbacks are many and complex, some of which we understand much better than others. But all of these linkages also mean that mitigation measures and efforts to reduce the air pollutant and greenhouse gas emissions are connected. While some measures result in across the board emission reductions benefitting both air quality and climate change (e.g., energy efficiency, wind energy), other measures can result in trade-offs that might reduce CO₂, but increase air pollutant (particulate matter) emissions – as in the case of residential biomass stoves, or vice versa.

! Zum Aktualisieren der Textelemente, Zitation markieren und dann F9 drücken !

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Within the scientific literature there has been some work that has explicitly or implicitly suggested using short-lived climate forcing pollutants to benefit climate change mitigation by delaying their mitigation or selectively reducing only some air pollutants. As air pollution is the projected leading environmental cause of premature death, and the current cause of 7 million premature deaths annually, not to mention the adverse effects on ecosystems and agriculture, reduction of short-lived climate forcing pollutants should not be delayed. For more on this topic, I would encourage you to read our Nature Commentary. An [interview with Julia Schmale](#) has been published today on the ABC News website.

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