



Short-Lived Climate Pollutants and the Sustainable Development Goals

The global Sustainable Development Goals (SDGs) and targets draw from diverse aspects of human and planetary needs and challenges. Achieving them by 2030 will require coordinated actions on many fronts. Reducing emissions of short-lived climate pollutants (SLCPs) like black carbon (soot), methane, tropospheric (ground-level) ozone, and hydrofluorocarbons (HFCs - chemicals commonly used as refrigerants and in air conditioning), is an action that not only contributes to the SDGs but can also help achieve the global climate goal to keep warming well below 2° Celsius.

Actions to reduce SLCPs will produce important near-term benefits that support the success of the SDGs by improving human health and reducing vulnerability, driving economic growth and innovation such as catalyzing improvements in energy efficiency, and combatting near-term climate change.

Globally air pollution is the leading environmental cause of early death, causing an estimated 7 million premature deaths per year, and is harmful to crops and ecosystems on a regional and global scale. Reducing emissions of SLCPs can avoid approximately 2.4 million premature deaths from reduced outdoor (ambient) air pollution. Household air pollution would also be reduced, producing additional significant health benefits. Improvements in air quality would also improve yields of four major crops (wheat, soybean, maize, and rice) by approximately 50 million tonnes per year.



- Improvements in air quality contribute directly to: **Goal 2** by improving ecosystem health and agricultural yields, thereby helping to end hunger and achieve food security, and; **Goal 3** and **Goal 11** by reducing indoor and outdoor air pollution and helping ensure healthy lives for people across the globe.
- Climate change is a fundamental threat for sustainable development. Reducing SLCPs can slow the rate of global warming and avoid an estimated 0.6°C of warming by 2050, compared to baseline scenarios, and reduce associated climate impacts, such as extreme weather events, rate of glacier melting and sea-level rise. Avoiding near-term warming is complementary to immediate and decisive action to reduce CO₂ and other long-lived climate pollutants.
- Reducing near-term warming directly contributes to **Goal 13** but also supports **Goal 1** and **Goal 11** by helping reduce the exposure of vulnerable populations to climate-related extreme events.
- SLCP measures promote low- or no-emission alternative practices and technologies across a wide range of sectors supporting **Goals 7, 9 and 12**.



SHORT-LIVED CLIMATE POLLUTANTS AND SUSTAINABLE DEVELOPMENT GOALS



Policies and measures to reduce SLCP emissions can contribute indirectly to poverty reduction by empowering people through local solutions and capacity strengthening, job creation in clean technologies, increased crop yield, and reduced economic effects of ill-health due to air pollution.



The UNEP/WMO assessment indicates that mitigating SLCP emissions, in particular tropospheric ozone, can help prevent the loss of 52 million tonnes of four staple crops – maize, rice, soybean and wheat - and contribute to increased agricultural productivity and sustainable food production systems.



Reducing SLCPs can prevent 2.4 million premature deaths each year. There are also important links between SLCPs and the SDGs through food and agricultural systems. Diets that conform to WHO guidelines can reduce SLCP emissions as well as improving health.



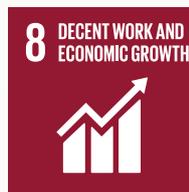
Household air pollution from cooking, heating, and lighting with biomass or fossil fuels disproportionately affects women and small children¹⁴. Actions to address household air pollution from traditional cooking methods reduce household fuel costs while supporting education and providing women opportunities for income generation through local entrepreneurship.



Untreated wastewater is a significant source of methane emissions. Capturing methane by upgrading primary wastewater treatment to secondary/tertiary treatment with gas recovery and overflow control can reduce many of the impacts associated with methane emissions while producing natural gas for energy thereby also contributing to Goal 7. Mitigating SLCPs, in particular black carbon, can help regulate the hydrological cycle and address water availability.



The introduction of clean-burning biomass stoves for cooking and heating and stoves using electricity generated from renewable or low carbon sources can help ensure universal access to affordable, reliable and modern energy. SLCP reduction actions can also contribute to improved energy efficiency and vice versa, thereby also reducing CO₂ emissions.



Many SLCP measures promote high-efficiency technologies and practices and support the target of decoupling economic growth from environmental degradation. The replacement of traditional biomass cooking and heating stoves with more efficient alternatives can improve resource efficiency, which can reduce deforestation by reducing or eliminating biomass fuel demand. It can also lower consumer costs by reducing fuel use and emissions per unit of energy.



SLCP measures can contribute to upgrading infrastructure and retrofitting industries. For example, replacing traditional brick kilns and coke ovens with modern technologies, results in the adoption of a cleaner, more energy efficient, and environmentally friendly technologies in these economic sectors. Introducing low Global Warming potential alternatives to HFC can foster innovation as companies compete to produce better products.



Many SLCP reduction measures have the potential to provide affordable, clean energy to deprived households for cooking and lighting purposes. Policies to reduce SLCPs through the elimination of high-emitting vehicles and soot free rapid transit public transport can foster support for safe, accessible travel in cities.



Measures to reduce fugitive methane emissions from the oil and gas sector, from coal mines, farms, and municipal solid waste directly contribute to Target 12.4 to achieve environmentally sound management and minimize adverse impacts on human health and the environment (Goals 2 and 3). Municipal solid waste measures, including separation and treatment of biodegradable waste, supports Target 12.5 through prevention, reduction, recycling and reuse.



SLCP mitigation can help slow down the rate of global warming in the near-term. If quick action is taken to reduce CO₂ emissions alongside SLCPs, there is an increased chance of keeping the global temperature increase to 2°C or less during the 21st century.



The Coalition is the only global effort that unites governments, civil society and private sector, committed to improving air quality and protecting the climate in the next few decades through SLCP reductions. It acts as a catalyst to implement and share immediate solutions addressing near-term climate change to improve people's lives rapidly, and to ensure sustainable development for future generations.