The Sustainable Development Goals (SDGs) and the Montreal Protocol on Substances that Deplete the Ozone Layer



The Montreal Protocol on Substances that Deplete the Ozone Layer has been hailed as the world's most successful environmental convention. It has not only led to the regeneration of the ozone layer and thus the protection of human health, but also resulted in significant reductions in greenhouse gas emissions, industry innovation, job creation, and more-efficient use of energy, among many other positive outcomes.

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The phase-out of ozone depleting substances (ODS) is an important component of UNDP's efforts to achieve sustainable, inclusive and resilient human development and the SDGs, which were adopted at the United Nations Sustainable Development Summit on 25 September 2015. Some of the most obvious linkages between UNDP's work in support of the Montreal Protocol and the SDGs are highlighted below:



SDG Goal 1: End poverty in all its forms everywhere - We support small, medium and large-scale industrial enterprises and their technicians to successfully transition to new technologies that do not deplete the ozone layer. This allows countries to meet the objectives of the Montreal Protocol, while ensuring business continuity, retaining and often creating jobs, maintaining competitiveness and increasing productivity and innovation of the related productive sectors.



SDG Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture - Ozone layer depletion can reduce the productivity of agricultural lands and plankton in the oceans, the basis of the marine food chain. This has important implications for food security. Phasing out ODS that often are also powerful greenhouse gases (GHGs) can protect the productivity of agricultural lands and oceans. Furthermore, supporting the refrigeration sector, which is key in extending the shelf life of food products and permitting their long-range transport, promotes sustainable food production systems. Finally, the introduction of environmentally friendly alternatives to methyl bromide, an ODS and hazardous pesticide, also contributes to food security.



SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages - Ozone layer depletion allows more UV radiation to reach the earth's surface, a contributing factor to melanoma skin cancer. Increases in UV radiation also cause other health concerns, including eye damage (e.g. cataracts), suppression of the immune system and premature skin aging. Our work in support of the Montreal Protocol contributes to reducing the number of deaths and illnesses from a thinning ozone layer. It also supports the refrigeration sector, which allows for cold chain management for medicines and vaccines, in its efforts to transfer to low ODP/GWP technologies. Phasing out of CFCs from Metered Dose Inhalers (MDIs) also ensures continued availability of COPD medication for asthma patients.



SDG Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all - As part of our work to phase-out ODS, energy efficiency in industry often increases as older technologies and processes are replaced by clean energy or higher-energy efficiency processes. Our projects also support improved energy efficiency in buildings by promoting investments in new heating and cooling systems; household refrigerator replacement programmes; or installation of thermal insulation foams. These programmes have a positive impact on the ozone layer and climate change and also reduce costs for energy consumers, freeing up funds for other primary needs.



SDG Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation - Our work in support of the Montreal Protocol promotes sustainable industrialization by upgrading industries through the transfer of clean and environmentally sound technologies that allow for the phase-out of ODS and higher-GHG fuels while increasing resource-use efficiency. Montreal Protocol related interventions allow small-scale enterprises to connect to existing and new markets, retain and improve their competitiveness, create or sustain jobs and ensure business continuity. As such, our work contributes directly to a country's GDP growth and industry's share of employment.



SDG Goal 12: Ensure sustainable consumption and production patterns

An important aspect of UNDP's work in support of the Montreal Protocol is the introduction of safe and energy-efficient alternatives to ODS contained in consumer products, such as refrigerators and air conditioning units. The use of such products is rapidly increasing because of a growing world population and the growing middle class that can afford such products. To ensure that past achievements of the Montreal Protocol are not cancelled out by an increase in the use of products that contain low ODP but high GWP chemicals, we focus on introducing natural refrigerants, increasing recovery and recycling rates of both refrigerants and "white" appliances.



SDG Goal 13: Take urgent action to combat climate change and its impacts - The Montreal Protocol has been one of the most significant and successful efforts to combat climate change. The phase-out to date of most ODS has not only led to the regeneration of the ozone layer but also significant reductions in GHG emissions as most ODS are also powerful GHGs. During the period 1989-2013, the Montreal Protocol has reduced CO_2 equivalent emissions as big as 11 other global policy actions combined, including energy efficiency, hydropower, nuclear power, forest preservation, fuel efficiency standards, etc. at a fraction of the cost.

For additional information:

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