

MONTREAL PROTOCOL DIVISION

The Montreal Protocol Division (MPD) plans, develops and implements national and sector-wide ozone-depleting substance (ODS) phase-out plans in developing countries to ensure their compliance with the Montreal Protocol.

UNIDO's MPD implements investment and non-investment projects related to the Montreal Protocol. Since 1992, MPD has helped in the phasing out of more than one-third of ozone-depleting substances in the developing world.

MPD works to encourage the adoption of sustainable industrial solutions by converting and upgrading production lines of companies of all sizes. Interventions target particularly the foam, refrigeration, air conditioning, aerosol, solvent and healthcare sectors, as well as fire protection and agro-industry. In all areas, the introduction of new ozone-friendly technology and equipment is coupled with training on technology use and safety.

In line with its holistic approach to tackling ODS phase-out, MPD further supports governmental institutions with the strengthening of regulatory frameworks and the monitoring of ODS consumption.

MPD has completed over 1,340 Montreal Protocol projects with the assistance of the Multilateral Fund, the Global Environment Facility (GEF) and bilateral contributions. Currently, MPD is implementing hydrochlorofluorocarbons (HCFCs) phase-out management plans in 70 countries.

HCFC Phase-Out

With chlorofluorocarbons (CFCs) successfully addressed under the Montreal Protocol, the current major challenge pertains to the phase-out of HCFCs, which are predominantly used in the foam, refrigeration and air conditioning sectors. The most common alternatives to HCFCs are hydrofluorocarbons (HFCs). Although HFCs are non-ODS, they have a high Global Warming Potential (GWP). Therefore, MPD seeks to avoid the use of transitional substances, such as HFCs, and opts for the use of long-term low-GWP solutions whenever possible. These activities are supplemented with projects to improve the energy efficiency of the products manufactured.

This is important considering that air conditioning consumes more than 40 percent of the electricity in some developing countries.

MPD has been implementing activities on how the consumption freeze and 10 percent reduction of HCFCs by 2013 and 2015, called for by the Montreal Protocol, are to be achieved. Most countries have targeted their foam manufacturing sector or individual foam production lines in the refrigeration manufacturing sector. To complement these plans, individual investment projects for the conversion of production lines have also been developed in the manufacturing sectors.



Climate Impact

Chemicals on the list of controlled substances under the Montreal Protocol include, among others, CFCs, halons, HCFCs and methyl bromide, which are collectively referred to as ODS. Most of them are also very potent greenhouse gases. The Montreal Protocol aims at completely phasing out the production and use of these substances, and MPD is supporting a large number of countries to achieve this goal.

One example of MPD interventions leading to climate impact are projects focusing on the refrigeration servicing sector. These projects include an introduction to and training in good service practices, as well as the provision of necessary equipment to reduce refrigerant leakages. These activities directly reduce emissions of gases that both deplete the ozone layer and contribute to climate change. Additionally, improved service methods have a positive impact on energy consumption in sectors that usually account for substantial energy consumption.



As a result of such activities, UNIDO is creating a significant climate impact, in terms of use reduction, through MPD-implemented activities under the Montreal Protocol. The greenhouse gas emissions reduction achieved is approximately 340 million tonnes of CO₂-eq, using 1990 as a baseline. This is equivalent to the EU-15's target for the period 2008-2012, and also equivalent to the combined target of Germany, France and the United Kingdom for 2020.

Industrial Upgrading

Since the phase-out of controlled substances entails the conversion of key industrial sectors in developing and transition countries, the activities carried out by MPD also enable targeted industries to achieve increased productivity and an improved economic performance.

These gains take the form of new, clean and up-to-date technologies, upgraded production lines with brand new equipment and the dissemination of adequate training on technology and industrial safety, including human health aspects. Not only does this allow for better access to new markets, it also helps sustain businesses in the long term through lower operating costs, less maintenance and higher product quality and reliability.

Together with MPD's efforts to build capacity by increasing the skill levels of technicians and industrial workers in order to strengthen small and medium-sized enterprises (SMEs) and larger industries alike, this provides a major contribution to generating employment, both by sustaining existing jobs and creating new ones.



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