Institutional Strengthening Project for the Implementation of Montreal Protocol - Phase X

Ozone (O₃) is a gas found in our atmosphere. Each ozone molecule is made up of three oxygen atoms. It is a pale blue gas with a distinctively pungent smell - and it is very scarce. Just 0.000004% of Earth’s total atmosphere is made up of ozone. It is typically said to exist between about 20 and 30km above the Earth’s surface, but it does not have definite edges.

The ozone layer protects us from harmful radiation from the sun. In particular, it protects us from UVB, which is a type of ultraviolet radiation. Small amounts of exposure to UVB can result in sunburn, but high levels of exposure would cause us - and most other life on earth - to die.

Ozone is an unstable and reactive gas. Because it is so reactive, the ozone in our atmosphere is very dynamic - it is being created and destroyed all the time. When UV light passes through the ozone layer, oxygen molecules are split up into their constituent oxygen atoms. These single atoms are then able to react with other oxygen molecules, forming ozone. This process is an endothermic reaction, meaning it needs to absorb energy (in this case the UV radiation) in order to occur. This also happens in reverse - because ozone is so unstable, each ozone molecule soon splits into an oxygen molecule and an oxygen atom. This is an exothermic reaction. This means that ozone splitting results in heat which causes an increase in atmospheric temperature. This temperature increase is what makes the stratosphere (where most of the ozone is) a distinct

QUICK FACTS
Duration: April 2019-2021
Implementing partners: Ministry of Climate Change
Funding partner: Multilateral Fund Secretariat
Location: Islamabad
Annual budget (2019-2021): USS 196,224
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atmospheric layer, and differentiates it from the troposphere and the mesosphere.

**Montreal Protocol on Substances That Deplete the Ozone Layer** is an international treaty designed to protect the ozone layer by phasing out the production and consumption of a number of substances believed to be responsible for ozone depletion. The treaty was opened for signature on September 16, 1987 and entered into force on January 1, 1989. Since then, it has undergone six revisions, in 1990 (London), 1992 (Copenhagen), 1995 (Vienna), 1997 (Montreal), 1999 (Beijing) and 2016 (Kigali). Due to its widespread adoption and implementation it has been hailed as an example of exceptional international cooperation “Perhaps the single most successful international agreement to date.”

Pakistan ratified the Vienna Convention, Montreal Protocol in 1992. Commonly used ODSs in Pakistan were chlorofluorocarbons (CFCs), Halons, carbon tetrachloride (CTC) and Methyl Bromide. These ODSs were mainly used in the manufacturing of deep-freezers, refrigerators, foam blowing, fire extinguisher, process agents and solvents etc. Pakistan has successfully phased out the 1st Generation of ODSs and is now working on phase out of 2nd Generation of ODSs. In this regard 10% reduction target of 2nd generation of ODSs i.e. Hydrochlorofluorocarbons (HCFC) has been achieved by 1st January, 2015.

Keeping in view Pakistan’s commitments to the international community, an National Ozone Unit under the project entitled “Institutional Strengthening of Ozone Cell for the Implementation of the Montreal Protocol” with the financial assistance of Multilateral Fund of the Montreal Protocol has been established under the M/o Climate Change since January 1996.

**Objectives of the National Ozone Unit**

The objective of the project is to continue strengthening the functioning of the Ozone Cell (National Ozone Unit) within the Ministry of Climate Change as focal point in Pakistan for all matters relating to the phase out of Ozone Depleting Substances (ODS) under the Montreal Protocol. The National Ozone Unit will follow up and implement all related activities such as legislative/regulatory measures, data reporting, mass awareness, implementation of HPMP, promotion of alternatives to CFC-based Metered Dose Inhalers and the accelerated phase out of the Hydrochlorofluorocarbons etc.

This project assists the Government of Pakistan to achieve its long-term goals to implement various ODSs phase out management plan (HPMP). It aims:

- To take necessary measures for the implementation of provisions of Montreal Protocol;
- To process phase out sub-projects for financial assistance from Multilateral Fund (MLF) through UNIDO / World Bank;
- To coordinate the phase out activities with UNDP / UNIDO / WB /UNEP and MLF;
- To assist local industry in the preparation of phase out sub-projects;
- To disseminate information on ODSs free technologies and phase out activities;
- To oversee and monitor import & usage of ODSs as well as implementation of phase out projects;
- To establish and maintain data base regarding demand and supply of ODSs in the country

**Expected results**

- Continue to strengthen the functioning of the Ozone Cell (National Ozone Unit) as the focal point in Pakistan for all matters relating to the phase out of Ozone Depleting Substances (ODS) under the Montreal Protocol.
- Continue to plan, organize, develop and coordinate relevant activities for the implementation for the phasing out of Ozone Depleting Substances (ODS).
- Implement import authorization system, development and monitoring of investment projects eligible for grant funding,
- Collect ODS data and report to the Ozone Secretariat and Multilateral Fund Secretariat (MLFS).
- Provide necessary physical infrastructure support to Ministry of Climate Change in meeting the national obligations under the Montreal Protocol in a sustainable manner.
- Take necessary measures for the implementation of provisions of Montreal Protocol.
Institutional Strengthening Project for the Implementation of Montreal Protocol in Pakistan

- Process the cases for phasing out of projects with the financial assistance from Multilateral Fund (MLF) through implementing agencies.
- Coordinate phasing out activities with the implementing agencies as well as local stakeholders.
- Assist local industry in the preparation of phasing out projects.
- Oversee and monitor import & usage of ODS.
- Establish and maintain database regarding demand and supply of ODS in the country.
- Formulate and enact policies and legislation for the phasing out of HCFCs in the country.
- Publish brochure / booklets and other material on Ozone issue for creating mass awareness.
- International Ozone Day celebration.
- Organize awareness workshops in collaboration with implementing agencies on HCFC accelerated phase out programme.
- Assist the HCFC based foam and refrigeration industry for conversion of technology into ozone friendly technology.

Progress 2018

- Timely allocation of HCFC quota to eligible firms
- Training of technicians in collaboration of Sindh Board of Technical Education. Two batches of fifty technicians trained
- Participated in PHVACR Expo 2018, held in April 2018 and exhibited NOU’s awareness material stall
  - Arranged one technical session in parallel to PHVACR was, wherein two international experts from P.R. China were mobilized with the support of UNEP, Bangkok
  - Organized training programme for Customs officers at Lahore from 2-3 April, 2018
  - Improved presence in field by visiting warehousing of all quota holders and bringing significant improvements
- Pakistan made its largest seizure of illegally imported ODS. Pakistan Customs with the support of NOU have seized 18,000 Kilograms of the smuggled refrigerant (R 22) at Karachi port in mid October, 2018.

- Secured the project of “Enabling Activities for Kigali Amendment” to a total sum of US$ 250,000.
- Ratification process for Kigali Amendment initiated (I.A. UNEP )
- Implementation of HPMP-II project (I.A. UNIDO & UNEP) is underway
- One project for conversion of refrigerator from R 134a to R 600a submitted to Ozone Secretariat for inclusion in MLF business plan for 83rd Ex Com.