

Montreal Protocol

[UPSC Notes]

What is Montreal Protocol?

As per Montreal Protocol, the developed and the developing countries must have different timetables for the consumption and production of the different ozone-depleting substances in a stepwise manner.

Ozone is the protective layer in the earth's atmosphere that acts as a blanket against harmful chemical substances. Not only is this but the Ozone layer known to protect against skin cancer. However, during the 1970s, scientists proved that the substances being used in refrigerators, conditioners, foam blowing, solvents, and aerosol cans are a leading cause that is responsible for the pertaining ozone depletion.

Later a huge hole was discovered in the Ozone layer over the Antarctica region and that became a major concern for the UN as it allowed the UV rays to seep into the earth's surface. The UN members understood the urgency of coming up with a solution to curb the damage to the Ozone layer by signing the Vienna Convention for the Protection of the Ozone Layer. As per the convention provision, all the countries adopted the Montréal Protocol to fulfill the goals of the Vienna convention in 1987.

Montreal Protocol Highlights

The hole in the ozone layer of the stratosphere over the Antarctic region became a matter of concern for the UN as a result of which Montreal Protocol was signed by all the members. Here are the highlights of the Montreal Protocol:

Highlights	Details
Reason for Montreal Protocol	phase down the use of the harmful Ozone-depleting substances
Montreal Protocol was Signed in	Sept 1987 but came into force in 1989
Montreal Protocol signatories	46
Montreal Protocol Languages	Arabic, English, French, Chinese, Spanish, and Spanish.

Montreal Protocol Depository	Secretary-General of the United Nations
Countries Involved in Montreal Protocol	197 Countries (all UN countries and EU)
Montreal Protocol Amendments	9
Ozone Secretariat	Situated in Nairobi at the UNEP headquarters.
Montreal Protocol Multilateral Fund	Setup in 1991

Montreal Protocol Insights

Montreal Protocol is an essential international protocol that is concerned with serious issues of Ozone depletion. It was the first international Protocol of its kind which aims to minimize the dependency on the HCFCs (hydrochlorofluorocarbons) and the potent greenhouse gases that are known to cause damage to the Ozone layer. Following are the key points of the Montreal Protocol:

- It is a time-bound process that is subjected to phase down the use of the harmful Ozone-depleting substances in different timetables by the developed and the developing countries.
- There is a specific responsibility of all the member parties to control the ODS trade, phase out the groups of ODS, report annual data, and control the import and export of the depletion.
- Though Developed and developing countries are equal contributors, they have differentiated responsibilities. Under the Protocol, the developing countries were not bound to cut down ODS, if they have a high domestic need.
- Both the groups have to work within their respective time limits to make the Protocol effective.
- The developing countries have also given technical assistance as per the suggestion by the UN. The technical advisory on alternative technologies was provided by the technology and economic assessment panel, formed in 1990.
- The Montréal Protocol can be amended or adjusted as per the economy, technological advancements, and the use of scientific methods. By far Montreal Protocol has undergone nine revisions or amendments.
- The Montréal Protocol is governed by the Meeting of the parties. These parties are aided by the Ozone Secretariat. The Ozone Secretariat is based in Nairobi at the UNEP headquarters.
- Montreal Protocol is the first-ever international treaty that is ratified by 197 parties including 196 member states of the UN plus the EU, which is every country in the world.
- In order to help the developing countries with the provision of the Montreal Protocol, the Multilateral fund was established in 1991. UNEP, UNIDO, UNDP, and the World Bank were responsible to implement the Fund activities. It assisted the developing countries that have a per capita ODS consumption of less than 0.3kgs.

Substances controlled under Montreal Protocol

The Ozone-depleting substances regulated by the Montreal Protocol are

- Annex A: CFCs, halons

- Annex B: other fully halogenated CFCs, carbon tetrachloride, methyl chloroform
- Annex C: HCFCs
- Annex E: Methyl bromide
- Annex F: HFCs

Provisions of Montreal Protocol

The provisions of the Montreal Protocol are related to a few articles and these are-

- Article 2: Control measures
- Article 3: Calculation of control levels
- Article 4: Control of trade with non-Parties
- Article 5: Special situation of developing countries
- Article 7: Reporting of data
- Article 8: Non-compliance
- Article 10: Technical assistance.

Article 4 in particular suggested a ban on the use of the ODS for 10 years.

Amendments of the Montreal Protocol

Montreal Protocol is related to the depletion of the Ozone layer. The Protocol has undergone 9 revisions or amendments. The major amendments among them have been discussed below:

- The London Amendment (1990)- The 2nd meeting of the Parties agreed to introduce the London Amendment to the Montreal Protocol on 27-29 June 1990 in London.
- The Copenhagen Amendment (1992)- The 4th meeting of the Parties agreed to introduce the Copenhagen Amendment to the Montreal Protocol on 23-25 November 1992 in Copenhagen.
- The Montreal Amendment (1997)- The 9th meeting of the Parties agreed to introduce the Montreal Amendment to the Montreal Protocol on 15-16 September 1997 in Montreal.
- The Beijing Amendment(1999)- The 11th meeting of the Parties agreed to introduce the Beijing Amendment to the Montreal Protocol on 29 November-3 December 1999 in Beijing.
- The Kigali Amendment (2016)-The second meeting of the Parties agreed to introduce the Kigali Amendment to the Montreal Protocol on 10-15 October 1990 in Kigali.

Kigali Amendment

The Kigali Amendment of the Montreal Protocol aims to cut the production and consumption of HFCs (hydrofluorocarbons) for the phase-down of hydrocarbons. This amendment was adopted by all the countries on 15 October 2016. However, came into force on January 1, 2019.

HFCs have no impact on the depletion of the Ozone layer. That is why it initially replaced the combination of chlorofluorocarbons and HCFCs in foam insulation, conditioning, and refrigeration. However, they are powerful greenhouse gases.

So, it aims to achieve an 80% reduction in HFC consumption by 2047. The Kigali amendment became an important tool against global warming that provides finance to certain countries that are opting for climate change alternatives. As per this amendment,

- Reduce HFC consumption by the beginning of 2019.

- Freeze consumption will be developed by most of the developing countries in 2024 while few countries like India will do it by 2028.

India and Montreal Protocol

Though the Montreal Protocol was signed in 1987 and India became the signatory in 1992. India's call over the Montreal Protocol can be summed up as

- India comes under Article 5 country and has assistance from the Multilateral Fund.
- It can use the Fund during its phase-out ODS.
- India utilizes 20 ODS and 7 are manufactured by it as per the Protocol.
- The implementation of the Montreal Protocol in India comes within the ambit of the Ministry of Climate Change, Forest and Environment. Also, the Ministry has established the Ozone Cell for implementation of the Protocol.
- The Ministry has also regulated the Ozone Depleting Substances (Regulation and Control) Rules 2000. As per these rules, there is a prohibition on to use of CFCs in manufacturing the products. It also provides mandatory restrictions to the producers, sellers, stockists, and importers of ODS.

Success of the Montreal Protocol

Montreal Protocol has proved to be a great success in improving the condition of the black hole. As per the UN study of Scientific Assessment of Ozone Depletion: 2018, the ozone layer is recovering at a rate of 1-3% per decade. Also,

- The hole in the Ozone over the Antarctic region is expected to close gradually to the 1980s level in the 2060s.
- The Ozone in the Northern Hemisphere and Mid-latitude will be healed completely by the 2030s.
- The Polar and the southern hemisphere Ozone will be healed by 2060s.