4.4 THE MONTREAL PROTOCOL

The Montreal Protocol on Substances that Deplete the Ozone Layer is an important Multilateral Agreement regulating the production, consumption, and emissions of ozone-depleting substances (ODSs). It is an important part of international environmental conventions and protocols. This article gives background to the Montreal Protocol, shares some details on the Ozone layer, important points on the Montreal Protocol, successes associated with the Montreal Protocol, and association of India with the Montreal Protocol.

The Montreal Protocol is an international environmental treaty designed to protect the ozone layer by phasing out the production and consumption of ozone-depleting substances (ODS). It was adopted on September 16, 1987, and has been recognized as one of the most successful environmental agreements to date.

Key aspects of the Montreal Protocol include:

1. **Objective:**

   The primary goal of the Montreal Protocol is to phase out the production and consumption of substances that deplete the ozone layer in the stratosphere, such as chlorofluorocarbons (CFCs), halons, and other ozone-depleting chemicals.

2. **Phasing Out ODS:**

   The Protocol sets out specific timelines and targets for the phase-out of ODS, with developed countries initially taking the lead in reducing their production and consumption, followed by developing countries in subsequent years.

3. **Amendments and Adjustments:**

   Over the years, the Montreal Protocol has been strengthened through amendments and adjustments to accelerate the phase-out schedule and expand the list of controlled substances. These amendments have been agreed upon during periodic meetings of the Parties to the Protocol.

4. **Multilateral Fund:**

   To support developing countries in complying with the Protocol's requirements, the Multilateral Fund for the Implementation of the Montreal Protocol was established.

The fund provides financial assistance and technology transfer to help countries transition away from ODS and adopt ozone-friendly alternatives.

5. **Successes:**

The Montreal Protocol is widely regarded as a landmark environmental agreement due to its significant achievements in reducing ODS production and consumption. It has led to the gradual recovery of the ozone layer, which protects life on Earth from harmful ultraviolet radiation.

6. **Challenges:**

Despite its successes, challenges remain, including the continued monitoring of ODS and their substitutes, ensuring compliance with the Protocol's requirements, and addressing emerging issues such as illegal trade in ODS.

Overall, the Montreal Protocol serves as a model for international cooperation in addressing global environmental challenges. It demonstrates the effectiveness of collective action and the importance of science-based policy in safeguarding the planet for future generations.

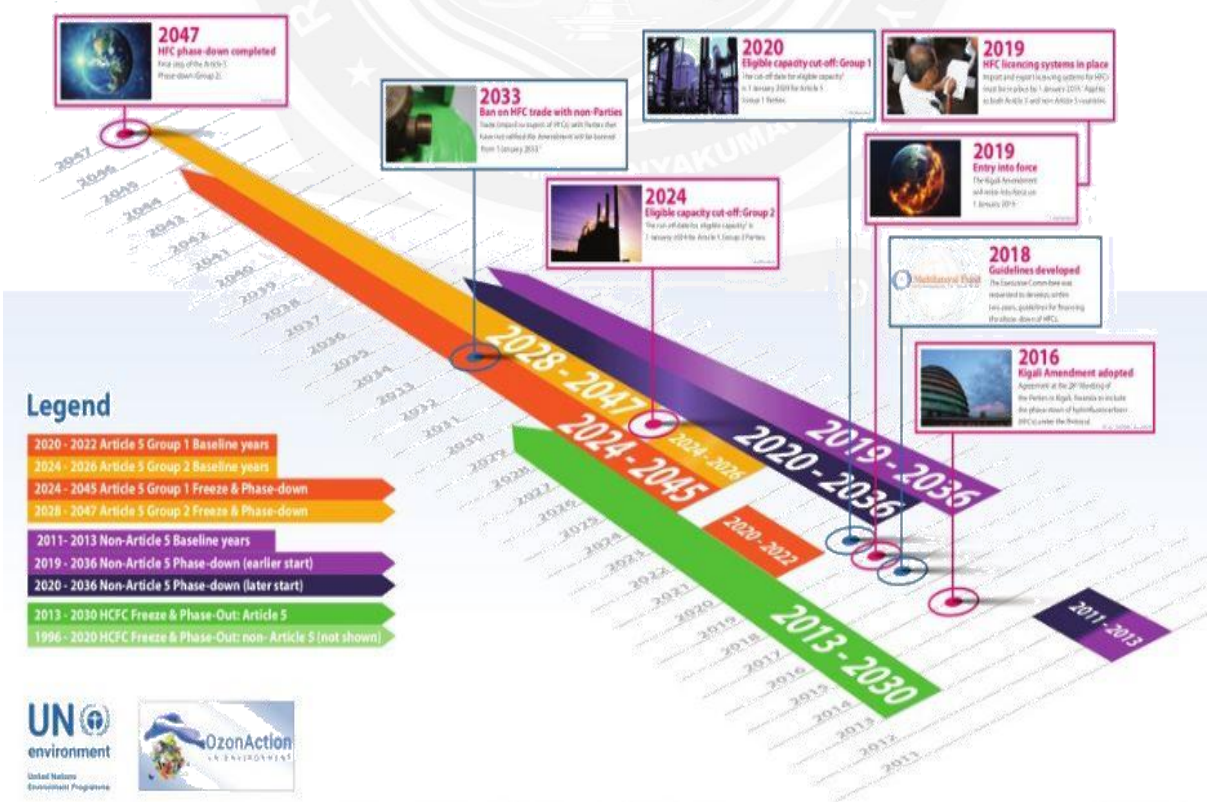

FIG. 4.4.1 THE MONTREAL PROTOCOL

Montreal Protocol – Important Points

The Protocol was signed in 1987 and entered into force in January 1989. The protocol gives provisions to reduce the production and consumption of ODSs to protect the ozone layer.

1. It phases down the use of ODSs in a stepwise, time-bound manner.
2. It gives different timetables for developing and developed countries.
3. All member parties have specific responsibilities related to the phasing out of various groups of ozone-depleting substances, controlling ODS trade, reporting of data annually, controlling export and import of ODs, etc.
4. Developing and developed countries have equal but differentiated responsibilities.
5. However, both groups of nations have time-bound, binding, and measurable commitments under the protocol, making it effective.
6. Under the protocol, there is a provision for it to be amended and adjusted according to the new scientific, economic, and technological advancements made.
7. The Protocol has undergone nine amendments or revisions.
8. The governance body for the protocol is the Meeting of the Parties. Technical support is given by the Open-ended Working Group. Both meet once every year.
9. The Parties are aided by the Ozone Secretariat, which is based at the headquarters of the UN Environment Programme (UNEP) at Nairobi.
10. It has been ratified by 197 Parties (196 member states of the UN plus the EU) making it the first United Nations treaty to be ratified by every country in the world.
11. The Montreal Protocol's provisions relate to the following:
    - 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
- And, other topics

12. The ODSs regulated by the Protocol are listed in:
    - Annex A: CFCs, halons
    - Annex B: other fully halogenated CFCs, carbon tetrachloride, methyl chloroform
    - Annex C: HCFCs
    - Annex E: Methyl bromide
    - Annex F: HFCs
13. Multilateral Fund: The Multilateral Fund for the Implementation of the Montreal Protocol was set up in 1991 to help developing countries to comply with the provision of the Protocol. This is under Article 10 mentioned above.
    - It provides financial and technical assistance to developing member countries whose yearly per capita consumption and production of ODSs is less than 0.3 kg.
    - The activities of the Fund are implemented by four bodies:
        - UNEP
        - UN Development Programme (UNDP)
        - UN Industrial Development Organisation (UNIDO)
        - World Bank

MONTREAL PROTOCOL – SUCCESSES

1. With universal ratification and a time-bound binding framework, the Montreal Protocol has been largely successful in setting out to achieving its mission of reversing the damage done to the ozone layer.

2. It has been considered the most successful international environmental action taken by countries.
3. The Protocol has been successful in levelling off or decreasing the atmospheric concentrations of the most important chlorofluorocarbons and related chlorinated hydrocarbons.
4. Although halon concentrations have gone up, their rate of increase has come down, and their concentration is expected to decline by 2020.
5. The Protocol has successfully sent clear signals to the global market.
6. The full implementation of the Montreal Protocol is expected to help in the avoidance of over 280 million skin cancer incidents, almost 1.6 million deaths due to skin cancer, and millions of cases of cataracts.
7. With the Protocol, the ozone layer is expected to recover by the year 2050.
8. Parties to the Protocol have been able to phase out 98% of ODSs compared to levels in 1990.
9. The Protocol is also helping fight climate change because most of the ODSs are also greenhouse gases.
10. It is estimated that from 1990 to 2010, the protocol has helped reduce greenhouse gas emissions by the equivalent of 135 gigatons of carbon dioxide, the equivalent of 11 gigatons a year.
11. The Kigali Amendment, an amendment to the Protocol, has helped reduce HFC emission and decrease global temperature rise.