



Amma's Message

International Day for the Preservation of the Ozone Layer

16 September

The ozone layer, a fragile shield of gas, protects the Earth from the harmful portion of the rays of the sun, thus helping preserve life on the planet.

Why is the ozone layer important? **Ozone protects the Earth from harmful ultraviolet (UV) rays from the Sun.** Without the ozone layer in the atmosphere, life on Earth would be very difficult. With a weakening of the ozone layer shield, humans would be more susceptible to skin cancer, cataracts and impaired immune systems.

“Ozone holes” are popular names for areas of damage to the ozone layer. This is inaccurate. Ozone layer damage is more like a really thin patch than a hole. The ozone layer is thinnest near the poles. The Ozone layer absorbs most of the ultraviolet radiation reaching the earth from the sun. Ozone Layer in the atmosphere is thicker over the poles than over the equator.

How is Ozone created?

When the sun's rays split oxygen molecules into single atoms, Ozone is created in the atmosphere. These single atoms combine with nearby oxygen to form a three-oxygen molecule — Ozone.

Who discovered the Ozone Layer?

The Ozone Layer was discovered by the French physicists Charles Fabry and Henri Buisson in 1913.

In the 1970s, people all over the world started realizing that the ozone layer was getting thinner and that this was a bad thing. Many governments and businesses agreed that some chemicals, like aerosol cans, should be outlawed. There are fewer aerosol cans produced

today. The ozone layer has slowly recovered as people, businesses, and governments work to control such pollution.

However, the phase out of controlled uses of ozone depleting substances and the related reductions have not only helped protect the ozone layer for this and future generations, but have also contributed significantly to global efforts to address climate change; furthermore, it has protected human health and ecosystems by limiting the harmful ultraviolet radiation from reaching the Earth.

Montreal Protocol – keeping us, our food and vaccines cool

The Montreal Protocol is a global agreement to protect the ozone layer, and has been implemented well, making it one of the most successful environmental agreements to date. A united global effort to phase out ozone-depleting substances means that today, the hole in the ozone layer is healing, in turn protecting human health, economies and ecosystems. The World Ozone Day seeks to highlight the need to do much more – to slow down climate change and help to boost energy efficiency in the cooling sector, which contributes to food security.

Background

A number of commonly used chemicals have been found to be extremely damaging to the ozone layer. Halocarbons are chemicals in which one or more carbon atoms are linked to one or more halogen atoms (fluorine, chlorine, bromine or iodine).

Vienna Convention for the Protection of the Ozone Layer

The scientific confirmation of the depletion of the ozone layer prompted the international community to establish a mechanism for cooperation to take action to protect the ozone layer. This was formalized in the Vienna Convention for the Protection of the Ozone Layer, which was adopted and signed by 28 countries, on 22 March 1985. In September 1987, this led to the drafting of The Montreal Protocol on Substances that Deplete the Ozone Layer.

Montreal Protocol

The principal aim of the Montreal Protocol is to protect the ozone layer by taking measures to control total global production and consumption of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge and technological information. It is structured around several groups of ozone-depleting substances. The groups of chemicals are classified according to the chemical family and are listed in annexes to the Montreal Protocol text. The Protocol requires the control of nearly 100 chemicals, in several categories. For each group or annex of chemicals, the Treaty sets

out a timetable for the phase-out of production and consumption of those substances, with the aim of eventually eliminating them completely.

In 1994, the United Nations General Assembly proclaimed 16 September the International Day for the Preservation of the Ozone Layer, commemorating the date of the signing, in 1987, of the Montreal Protocol on Substances that Deplete the Ozone Layer (resolution 49/114).

Implementation of the Montreal Protocol

Implementation of the Montreal Protocol progressed well in developed and developing countries. All phase-out schedules were adhered to in most cases, some even ahead of schedule. Attention focused initially on chemicals with higher ozone-depletion potentials including CFCs and halons.

Universal ratification

On 16th September 2009, the Vienna Convention and the Montreal Protocol became the first treaties in the history of the United Nations to achieve universal ratification.

