

World Ozone Day

Theme: “Ozone for Life: 35 years of Ozone layer protection ”

16th September 2020

The United Nations' (UN) International Day for the Preservation of the Ozone Layer is celebrated on September 16 every year to commemorate the signing of the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987.

The ozone layer acts as a natural filter, absorbing most of the sun's ultraviolet (UV) rays that have a long term devastating effect on human, animals and plants.

Discovered in 1913 by French physicists Charles Fabry and Henri Buisson, the ozone layer in the stratosphere (about 25km) from the Earth's surface, protects the earth from harmful solar radiations.



Ozone Layer – An Umbrella of the Earth

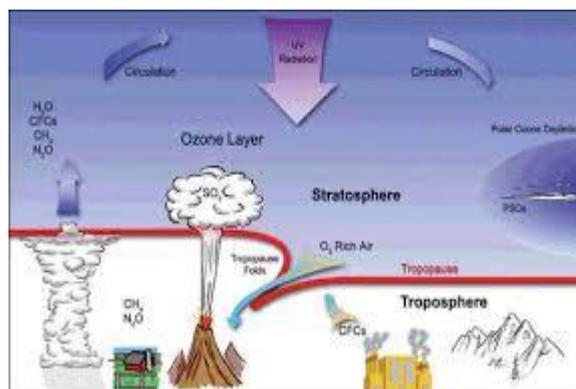
What are the causes of “Ozone depletion”?

Natural causes of depletion of ozone layer:

- Sun-spots and stratospheric winds.
- Major volcanic eruptions.

Man-made causes of depletion of ozone layer:

- Excessive release of chlorofluorocarbons (CFCs) used as coolants in refrigerators, freezers and air conditioners, gases used in fire extinguishers besides other chemicals such as Methyl chloroform and hydro-chlorofluorocarbons (HCFCs).



Ozone Destruction – Natural & Human Activities

Impact of Ozone Depletion

Exposure to higher amounts of UV radiation will adversely affect normal growth and functioning on human beings, animals and plants.

Effects on human

- More skin cancers, sunburns and premature aging of the skin.
- More cataracts, blindness and other eye diseases: UV radiation can damage several parts of the eye, including the lens, cornea, retina and conjunctiva.

Effects on agriculture, forestry and natural ecosystems

- Several of the world's major crop species are particularly vulnerable to increased UV resulting in lower yields. These crop species include wheat, rice, barley, oats, corn, soybeans, peas, tomatoes, cucumbers, cauliflower, broccoli and carrots.

Damage to marine life

- Plankton, which are the first vital step in aquatic food chain, are threatened by increased UV radiation.

How can we contribute to prevent its depletion?

Individually

- Purchase products that are labeled 'ozone friendly' or 'CFC free'.
- Dispose - off CFC and HCFC refrigerants from old refrigerators and appliances properly before it is discarded.
- Return portable Halon-fire extinguishers to your fire protection authority for recycling and replace it with Halon-free fire extinguishers.
- Avoid use of methyl bromide as pesticide, instead choose safer available alternatives such as integrated pest management.
- Ensure that your vehicle's AC system is regularly checked for any possible leakages of Ozone Depleting Substances (ODS) or other refrigerants into the atmosphere.

At workplace

- Replace non ozone-friendly products and appliances with cost-effective alternatives.
- Replace ozone depleting substances used on your premises and in your manufacturing processes. Become an environmental leader in the world of business.
- Replace portable Halon-fire extinguishers with a Halon-free fire extinguisher.
- Educate your employees.

At your community

- Involve one and all in the community on the need to protect the ozone layer. Work with non-governmental organizations to help start information campaigns and technical assistance projects to phase out ozone depleting substances in your city, town or village.
- Start a refrigerant recovery and recycling programme in your area with the support of the National Ozone Unit (Ozone Cell), Ministry of Environment, Forest, & Climate Change, Government of India, and qualified trainers.
- Teach the children about the importance of preserving the ozone layer. Teach them about the damaging impact of ozone depleting substances on the atmosphere, health impacts and what steps are being taken internationally and nationally to solve this problem.
- Encourage your students to spread the message to their families.

Published By: Meghalaya State Pollution Control Board

(Forests & Environment Deptt. Govt. of Meghalaya)

"Arden", Lumpyngad, Shillong-793014

Telefax : 0364-2521217

e-mail : memsecy.spcb-meg@gov.in Website : www.megspcb.gov.in