

World Ozone Day

Why in News

Every year, 16th September is observed as the International Day for the Preservation of the Ozone layer (World Ozone Day).

Key Points

About:

- After the <u>Montreal Protocol</u> on Substances that deplete the ozone layer signed by almost every country in 1987, the <u>United Nation General Assembly</u>, in 1994, proclaimed this day as the <u>International Day for the Prevention of the Ozone Layer</u>.
 - The Montreal Protocol has led to the phase-out of 99% of ozone-depleting chemicals in refrigerators, air-conditioners and many other products.
 - The latest Scientific Assessment of Ozone Depletion completed in 2018, shows that
 parts of the ozone layer have recovered at a rate of 1-3% per decade since
 2000.
 - Ozone layer protection efforts have also contributed to the fight against climate change by averting an estimated 135 billion tonnes of carbon dioxide equivalent emissions, from 1990 to 2010.
 - In September 2009, the <u>Vienna Convention</u> and the **Montreal Protocol** became
 the first treaties in the history of the United Nations to achieve universal
 ratification.
 - Establishment of a mechanism for cooperation to take action to protect the ozone layer was formalized in the **Vienna Convention in 1985.**
- In 2016 as a continuation of the global effort the Parties to the Montreal Protocol reached agreement at their 28th Meeting of the Parties in Kigali, Rwanda to phase-down hydrofluorocarbons (HFCs).
 - Recently, the <u>Indian Government approved the ratification of the Kigali</u>
 <u>Amendment</u> to the Montreal Protocol.

2021 Theme:

Montreal Protocol - Keeping us, our food, and vaccines cool.

Ozone

About:

- It is a **special form of oxygen with the chemical formula O₃.** The oxygen we breathe and that is so vital to life on earth is O₂.
- Most ozone resides high up in the atmosphere, between 10 and 40km above Earth's surface. This region is called the stratosphere and it contains about 90% of all the ozone in the atmosphere.

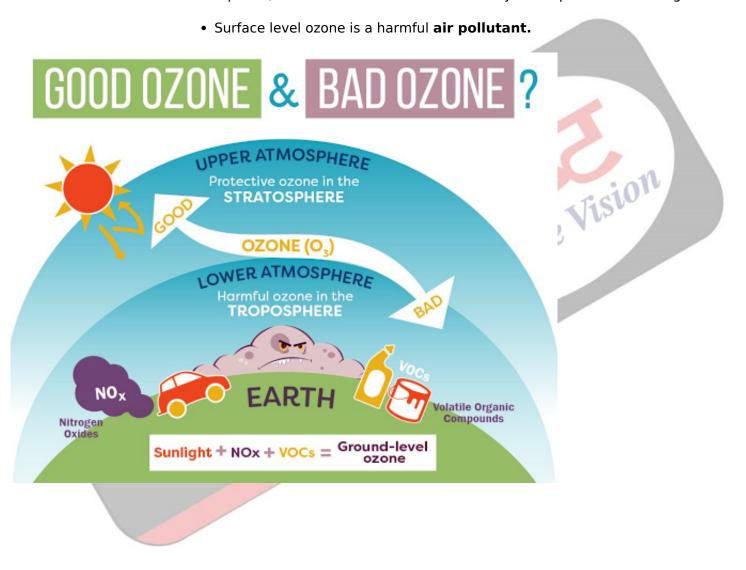
Classification:

Good Ozone:

- Ozone occurs naturally in the **Earth's upper atmosphere (Stratosphere) where it forms a protective layer** that shields us from the sun's harmful ultraviolet rays.
- This "good" ozone is gradually being destroyed by man-made chemicals referred to as <u>Ozone-Depleting Substances (ODS)</u>, including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, and methyl chloroform.

Bad Ozone:

• In the **Earth's lower atmosphere (troposphere) near ground level,** ozone is formed when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources react chemically in the presence of sunlight.



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