

Ozone Pollution

March 26, 2020

- **Why in news?**

- Data of the MoEFCC has proven that ground level ozone is one of the vital pollutants in Delhi air pollution.

- **What is ground level ozone?**

- Ozone is a gas composed of **three atoms of oxygen (O₃)**.
- Ozone can be **good or bad, depending on where it is found**.
- **Stratospheric ozone is good ozone** that occurs naturally in the upper atmosphere, where it forms a protective layer that shields us from the sun's harmful ultraviolet rays.
- **Ground-level ozone, bad ozone**, is a colorless and highly irritating gas that **forms just above the earth's surface (lower troposphere)**.
- It is called a "secondary" pollutant because it is produced when two primary pollutants react in sunlight and stagnant air.
- These two primary pollutants are nitrogen oxides (NO_x) and volatile organic compounds (VOCs).
- About 95 percent of NO_x from human activity come from the burning of coal, gasoline and oil in motor vehicles, homes, industries and power plants.
- VOCs from human activity come mainly from petrol combustion and marketing, upstream oil and gas production, residential wood combustion, and from the evaporation of liquid fuels and solvents.

- **Harmful effects of ground-level ozone:**

- Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and airway inflammation.

- It also can reduce lung function and harm lung tissue.
- Ozone can worsen bronchitis, emphysema, and asthma, leading to increased medical care.
- It affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas.