

Sulphur-di-oxide pollution

March 27, 2020

Why in news?

- India is the largest emitter of sulphur dioxide (SO₂) in the world, contributing more than 15 percent of global anthropogenic emissions, according to a new report by Greenpeace.

What is SO₂?

- Sulphur dioxide (SO₂) is a colorless gas with a strong odour, similar to a just-struck match.
- It is formed when fuel containing sulphur, such as coal and oil, is burnt, creating air pollution.
- Most sulphur dioxide air pollution comes from the burning of coal and oil in power plants.
- It is also emitted by trains, large ships, and some diesel equipment that burns high sulphur fuel and also by volcanic eruptions.
- It is **used as a food preservative** for some fruits and vegetables.
- It becomes a liquid under pressure.
- Sulfur dioxide and nitrogen oxides affect the environment when they react with substances in the atmosphere to **form acid rain**.
- The **primary reason for India's high emission output** is the expansion of coal-based electricity generation over the past decade.

Efforts by India to reduce SO₂ emissions:

- The Environment Ministry had introduced SO₂ emission limits for coal power plants in December 2015 and set the initial deadline to control SO₂ emissions from power generation by December 2017.
- The deadline was later extended till December 2019 after

a request from the Ministry of Power and power plant operators in Delhi-NCR and till 2022 for some other power plants across the country through a Supreme Court order.

- India has over 15 percent of all anthropogenic sulphur dioxide (SO₂) hotspots in the world. The **main SO₂ hotspots in India** are **Singrauli in Madhya Pradesh (5th position in the world)**, Korba in Chhattisgarh, Talcher and Jharsuguda in Odisha, Neyveli and Chennai in Tamil Nadu, Kutch in Gujarat, Ramagundam in Telangana and Chandrapur and Koradi in Maharashtra.
- Norilsk smelter complex in Russia is the largest SO₂ emission hotspot in the world, followed by Kriel in Mpumalanga province in South Africa and Zagroz in Iran.