



Delhi Air Pollution

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Why in News

Recently, according to the **SAFAR (System of Air Quality and Weather Forecasting and Research)** system, Delhi's air quality deteriorated from 'moderate' to 'poor' and 'very poor'.

Key Points

- **Causes of Deteriorating Air Quality:**
 - Delhi's air **typically worsens in October-November** and improves by March-April. Current weather conditions are not unfavourable, unlike in winter. During winter, cool and calm weather traps and spikes daily pollution, particularly in north Indian cities located in the **Indo Gangetic Plain**.
 - Hence, apart from **local emissions**, the deterioration in air quality is **being attributed to an increase in fire counts, mostly due to burning of wheat crop stubble in northern India**.
 - The **most crucial reasons** for the alarming levels of air pollution in Delhi include:
 - City's landlocked geographical location.
 - Crop burning in neighbouring states (Punjab, Haryana and Rajasthan).
 - Vehicular emissions.
 - Industrial pollution.
 - Large-scale construction activities.

- **Concerns:**
 - Deteriorating air quality is worrying amid an increasing number of **novel coronavirus disease (Covid-19)** cases and deaths.
 - In the **World Air Quality report 2020**, Delhi has been listed as the **10th most polluted city and the top polluted capital city in the world.**
However, it shows a boost in Delhi's air quality by approximately 15% from 2019 to 2020.
 - In July 2020, **Greenpeace (non-governmental organisation)** found out that of the 28 global cities studied, **Delhi bore the highest economic cost of air pollution** with an estimated loss of 24,000 lives in the first half of 2020 despite a strict Covid-19 lockdown.
 - Long-term exposure to outdoor and **household (indoor) air pollution** contributed to over 1.67 million annual deaths from stroke, heart attack, diabetes, lung cancer, chronic lung **diseases**, and **neonatal diseases**, in India in 2019 (**State of Global Air 2020**).
- **Major Measures Taken:**
 - Subsidy to farmers for buying **Turbo Happy Seeder (THS)** which is a machine mounted on a tractor that cuts and uproots the stubble, in order to **reduce stubble burning.**
 - The introduction of **BS-VI vehicles**, push for **electric vehicles (EVs)**, **Odd-Even** as an emergency measure and construction of the **Eastern and Western Peripheral Expressways** to reduce vehicular pollution.
 - Implementation of the **Graded Response Action Plan (GRAP)**. It is a set of curbs triggered in phases as the air quality deteriorates, which is typical of the October-November period.
 - Development of the **National Air Quality Index (AQI)** for public information under the aegis of the **Central Pollution Control Board (CPCB)**.

System of Air Quality and Weather Forecasting And Research

- SAFAR is a national initiative **introduced by the Ministry of Earth Sciences (MoES)** to measure the air quality of a metropolitan city, by measuring the overall pollution level and the location-specific air quality of the city.
- The system is **indigenously developed by the Indian Institute of Tropical Meteorology (IITM), Pune** and is **operationalized by the India Meteorological Department (IMD)**.
- The ultimate objective of the project is to increase awareness among the general public regarding the air quality in their city so that appropriate mitigation measures and systematic action can be taken up.
- SAFAR is an **integral part of India's first Air Quality Early Warning System** operational in Delhi.
- It **monitors all weather parameters** like temperature, rainfall, humidity, wind speed, and wind direction, UV radiation, and solar radiation.

- **Pollutants Monitored:** PM2.5, PM10, Ozone, Carbon Monoxide (CO), Nitrogen Oxides (NOx), Sulfur Dioxide (SO2), Benzene, Toluene, Xylene, and Mercury.

Way forward

- The wheat season is not followed by intensive farm fires, unlike paddy harvesting, as managing wheat stubble is comparatively easy and wheat straw is processed into cattle feed by most farmers.
- So instead of focusing on farm fires, Delhi should look at local emissions to control the air pollution.
- Breathing clean air is a fundamental right of every Indian citizen. Therefore, human health must become a priority when it comes to tackling air pollution.

Source: DTE