



## Anti-pollution Campaign: Delhi

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### Why in News

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The Delhi Government has recently launched a major anti-pollution campaign, *Yuddh Pradushan Ke Viruddh*, which includes a **tree transplantation policy**, construction of a **smog tower** at Connaught Place (Delhi), promoting **Electric vehicles** and preventing **stubble burning**.

This will help in combating the **poor air quality of Delhi** which deteriorates even more in the winter season.

### Key Points

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- **Tree Transplantation Policy**

- Tree transplantation refers to uprooting a tree from a particular spot, lifting it, and planting it at another spot,
- Under this policy, a **minimum of 80% of trees affected by any developmental project, will be transplanted**. Also, a minimum of 80% of the transplanted trees should survive and ensuring this would be the responsibility of the agencies that will take permission from the government.
- This transplantation will be in addition to the **existing compensatory afforestation** of planting of **10 saplings for every tree that is cut**.
- A **panel of the agencies** that excel in the task of transplantation and a dedicated **Tree Transplantation Cell** will also be formed by the government.
- **Benefits:**
  - Planting a new sapling as a substitute for an existing fully grown tree does not adequately counter the adverse environmental effect of cutting the existing tree. Transplantation will ensure the **conservation of old trees**.
  - Also, many old trees have a **symbolic or heritage value** which needs to be preserved.
- **Limitations:**
  - **Low Success Rate:** Transplantation is a complicated process with a success rate of around 50%. The survival rate of a transplanted tree depends on soil type as a tree growing on the Delhi ridge is unlikely to survive in the Yamuna floodplain.
  - **Expensive:** It costs around Rs 1 lakh to transplant an average-sized tree.

- **Smog Tower:**
  - A **smog tower**, which will act as a mega air purifier, will also be installed in Delhi to counter the persistent issue of smog in Delhi as per the November 2019 order of the Supreme Court to the Delhi government and the Central Pollution Control Board.
  - The towers to be installed in Delhi will be the result of a collaboration between the **IITs at Mumbai and Delhi, and the University of Minnesota.**
  - Smog towers have been experimented with in recent years in cities in the Netherlands, China, South Korea and Poland. The first such tower was erected in **2015, in Rotterdam, Netherlands**, created by Dutch artist Daan Roosegaarde.
  - The **world's largest air-purifying tower is in Xi'an, China.**
  - The Tower will **suck the polluted air from above and release clean air from the bottom.**
  - **Limitations:**
    - Many experts have claimed that due to the large volume of air outdoors, smog towers are **not efficient** in cleaning the air per se.
    - Even in the case of China, there is **insufficient data to support the effectiveness** of its smog towers.
    - An expert panel has estimated that Delhi will need a total of 213 smog towers to battle the pollution crisis which will be very **expensive** as each tower will cost around 20 crore rupees.
- **Electric Vehicles (EVs)**
  - The government aims to make **EVs account for a quarter of the new vehicles registered in the capital by 2024.**
  - EVs will gain from purchase **incentives, scrappage benefits** on older vehicles, **loans** at favourable interest and a **waiver** of road taxes.
  - Recently, the Delhi government notified the **Electric Vehicles Policy 2020** which lays the maximum emphasis on replacement of two-wheelers, public transport and shared vehicles and goods-carriers instead of private four-wheelers, with EVs.
- Apart from these steps, the campaign also focuses on cutting the **deadly smoke from thermal plants and brick kilns** in Delhi as well as on the chemical treatment of **stubble burning** from nearby States.

## **Air Pollution in Delhi**

- According to air quality data compiled by the **World Health Organisation** (WHO), Delhi is among the world's most polluted cities.

- Particulate matter, PM2.5 and PM10 in Delhi, exceed national standards and the more stringent World Health Organization limits.

Delhi needs a **65% reduction to meet the national standards for PM2.5.**

- Delhi's toxic air also contains **high doses of sulphur dioxide and nitrogen oxide.**
- The lack of wind worsens the pollutant concentration.
- The Ministry of Earth Sciences published a research paper in October 2018 attributing almost **41% to vehicular emissions, 21.5% to dust and 18% to industries.**

Emission testing of vehicles is only 25%.

- According to the WHO, India has the world's highest death rate from chronic respiratory diseases and asthma. Air pollution also impacts the environment through reduced visibility, acid rain, and formation of ozone at the tropospheric level.
- **Reasons for Deteriorating Air Quality of Delhi**
  - Stubble Burning
  - Vehicular Emission
  - Weather
  - High Population Density
  - Lack of Infrastructure
  - Construction Activities and Open waste burning
  - Thermal Power Plant and Industries
  - Firecrackers
  - Diesel generators
  - Dust Storm from Gulf countries

## Way Forward

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- Delhi's long-term solution will depend importantly also on **abating emissions from transportation.** A three-part action for combating vehicular emissions comprises **emissions standards, public transport, and electric vehicles.** The Supreme Court's ruling to increase Delhi's bus fleet and align it with the Metro network must be carried out.
- **Technical solutions** need to be underpinned by **coordination and transparency** across Central, State, and local governments. **Citizen participation** and the media are vital for sharing the message on pollution and health, using data such as those from the **Central Pollution Control Board.**
- The need to control becomes ever more important in the **Covid-19 pandemic** scenario when respiratory ailments due to air pollution can worsen the condition of Covid-19 affected people.

**Source: TH**