

India's First Smog Tower inaugurated in Delhi

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In news- The Chief Minister of Delhi inaugurated the "country's first smog tower" at Connaught Place in Delhi.

About the smog tower-

- It is an experimental set up worth Rs 20 crore to purify air in a 1-km radius around the structure, at a rate of around 1,000 cubic metres of air per second.
- It is located behind the Shivaji Stadium Metro station in Connaught Place, and was raised at a height of 24.2 metres.
- A total of 40 fans have been installed at the bottom of the tower, air will be sucked in from the top, filtered and released through the fans at the bottom.
- The tower comprises 5,000 electrostatic air filters that can filter out microparticles, including those that constitute smoke, household dust and pollen, according to the project description.
- A Supervisory Control and Data Acquisition (SCADA) system has been installed in the tower to collect data and monitor its functioning.
- Delhi Pollution Control Committee (DPCC) is the nodal agency for the tower.
- National Buildings Construction Corporation (NBCC) is the project management consultancy and the executing agency was Tata Projects Limited.
- The two-year pilot study will be carried out by IIT Delhi and IIT Bombay, technical advisors for the

project.

- The institutions will monitor the impact of the tower on PM2.5 and the functioning of the tower under different weather conditions.

A **similar tower is being set up at Anand Vihar**, work on which is nearly complete.

What is smog?

- Smog is air pollution that reduces visibility.
- The term “smog” was first used in the early 1900s to describe a **mix of smoke and fog**.
- The smoke usually came from burning coal.
- **Smog was common in industrial areas, and remains a familiar sight in cities today.**
- Today, most of the smog we see is photochemical smog.
- **Photochemical smog is produced when sunlight reacts with nitrogen oxides** and at least one volatile organic compound (VOC) in the atmosphere.
- Nitrogen oxides come from car exhaust, coal power plants, and factory emissions.
- VOCs are released from gasoline, paints, and many cleaning solvents.
- When sunlight hits these chemicals, they form airborne particles and ground-level ozone or smog.