



General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Lessons from China's Pollution Control

Introduction

- The National Green Tribunal (NGT) directed the Ministry of Environment, Forest and Climate Change to modify the National Clean Air Programme (NCAP) which proposes 20%-30% reduction of air pollution by 2024.
- The Supreme Court of India asked, despite the compliance reports, why are the results on the ground negligible and what is the Commission for Air Quality Management in the National Capital Region doing?

Similarities between Beijing and Delhi

- The **population size** of both cities, Beijing and Delhi, is comparable.
- Delhi also shares with Beijing the **different stages in dealing with urban air pollution**.
- It starts with **targeting primary pollutants** (SO₂, NO₂, PM₁₀, and CO), with the Government playing the main role.
- Later, **secondary pollutants**, or particulate matter leading to smog, primarily PM_{2.5}, **become the main focus** for control with a regional coordination mechanism.

Lessons from Beijing

- The UN Environment Programme's review of Beijing's control of air pollution provides useful lessons for policymakers.

- Beijing focuses on providing **early warning** to effectively reduce the level of pollution under adverse weather conditions.
- In case of forecasted heavy pollution, **warnings are issued at least 24 hours in advance** through the media.
- It uses **high-resolution satellite remote sensing and laser radar** for quality monitoring.
- Over 1,000 **PM2.5 sensors** throughout the city will accurately identify high-emission areas.

Approach to urbanisation

- Beijing did not shut down polluting units, not restrict car ownership and travel, and did not improve fuel standards.
- Smart cities such as New York, London and Beijing provide **more space for public transport** and **mixed land use spatial planning** minimising travel.
- Beijing's 7th Ring Road to ease congestion is 1,000 kilometres long, and even before buildings came up, the metro link was operational.
- Beijing already has more than 550 km of metro, more than one-and-half times that of the Delhi Metro.
- **In China, 72% of travel is completed by public transport** compared with 37% in Japan, 17% in Europe and 10% in the U.S.

Vehicle policy

- Particulate matter is the most difficult to control, it leads to smog and serious health issues, and is largely caused by vehicle emissions.
- Systematic study on **PM2.5 source apportionment** in Beijing has found that vehicle emissions were nearly half the main source.
- **Phasing out older vehicles** made the most significant contribution.
- Beijing plans to have 48 lakh charging points by 2022 to push the use of electric vehicles.
- Delhi has nearly two times the number of registered vehicles than Beijing, which is increasing at a faster pace.

Other Innovative Steps

- **Local regulation** controlled the total emission amount leading to upgrading the industrial production processes.
- **Economic incentives** were tailored to the specific problem, with **subsidies to high-polluting enterprises to close their production**.
- **Differentiated fees** were charged **according to the concentration of waste gas emissions** for those who chose to remain in production.
- Enforcement at the municipal and State levels is coordinated.
- **Independent evaluations** review the air quality management system, analyse new challenges, and provide recommendations for enabling further improvement in air quality.