Air Pollution in India & NCAP

For Prelims: National Clean Air Programme, Central Pollution Control Board

For Mains: Environmental Pollution & Degradation, Initiatives Taken to Control Air Pollution

Why in News?

Under the **National Clean Air Campaign (NCAP)**, analysts found that **progress has been slow, and pollution has only incrementally reduced in most cities.**

What is the National Clean Air Programme?

- It was launched by the Ministry of Environment, Forests and Climate Change (MoEFCC) in January 2019.
- It is the first-ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.
- It seeks to cut the concentration of coarse (particulate matter (PM) of diameter 10 micrometer or less, or PM10) and fine particles (particulate matter of diameter 2.5 micrometer or less, or <u>PM2.5</u>) by at least 20% in the next five years, with 2017 as the base year for comparison.
- It covers 132 non-attainment cities which were identified by the <u>Central Pollution Control</u> <u>Board (CPCB).</u>
 - Non-attainment cities are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.
 - NAAQs are the standards for ambient air quality with reference to various identified pollutant notified by the CPCB under the Air (Prevention and Control of Pollution) Act, 1981. List of pollutants under NAAQS: PM10, PM2.5, SO2, NO2, CO, NH3, Ozone, Lead, Benzene, Benzo-Pyrene, Arsenic and Nickel.

What are the Target Levels?

- Current Scenario: The country's current, annual average prescribed limits for PM2.5 and PM10 are 40 micrograms/per cubic metre (ug/m3) and 60 micrograms/per cubic metre.
- New Targets: The NCAP initially set a target of reducing key air pollutants PM10 and PM2.5 by 20-30% in 2024, taking the pollution levels in 2017 as the base year to improve upon.
 In September 2022, however, the Centre moved the goalposts and set a new target
 - of a 40% reduction in particulate matter concentration, by 2026.
- Assess Improvements: Cities were required to quantify improvement starting from 2020-21, which requires 15% and more reduction in the annual average PM10 concentration and a concurrent increase in clean air quality days to at least 200.
 - Anything less will be considered low, and the funding will consequently be reduced.

How Effective has the NCAP Been?

- Achieving Targets:
 - An analysis of the four-year performance of the NCAP by the Centre for Research on Energy and Clean Air (CREA), concluded that only 38 of the 131 cities that signed agreements with the Centre, Urban Local Bodies (ULBs), and State Pollution Control Boards achieved their annual pollution reduction targets.
- Recommendations:
 - The CREA noted that 37 cities have completed the source apportionment studies (which list and quantify the significant sources of pollution in a city). However, most of these reports weren't available in the public domain and no city action plan had been updated with information from these studies.
 - The CREA estimates that India will need to install more than 300 manual air quality monitoring stations per year to reach the NCAP goal of 1,500 monitoring stations by 2024. Only 180 stations have been installed over the last four years.



Has NCAP Managed to Reduce Pollution?

- The NCAP Tracker, a joint project by two organisations active in air pollution policy has been monitoring progress in achieving the 2024 clean air targets.
- Among the non-attainment cities, the national capital of Delhi ranked the most polluted in 2022. But Delhi's PM2.5 levels have improved by over 7% compared to 2019.
- Most cities in the top 10 most polluted list of 2022 were from the Indo-Gangetic Plain.
- Nine of the 10 cities, which were the most polluted in 2019, have reduced their PM2.5 and PM10 concentrations in 2022.
- There were 16 NCAP cities and 15 non-NCAP cities that registered a significant increase in their annual PM2.5 levels — with nearly identical numbers. This suggested that non-NCAP and NCAP cities were as likely to be polluted, with the less effectiveness of NCAP.

What are the Initiatives Taken for Controlling Air Pollution?

- System of Air Quality and Weather Forecasting and Research (SAFAR) Portal.
- Air Quality Index: AQI has been developed for eight pollutants viz. PM2.5, PM10, Ammonia, Lead,

nitrogen oxides, sulphur dioxide, ozone, and carbon monoxide.

- Graded Response Action Plan (for Delhi).
- For Reducing Vehicular Pollution:
 - **BS-VI Vehicles**,
 - Push for Electric Vehicles (EVs),
 - Odd-Even Policy as an emergency measure (for Delhi).
- New Commission for Air Quality Management
- Subsidy to farmers for buying <u>Turbo Happy Seeder (THS) Machine</u> for reducing stubble burning.
- National Air Quality Monitoring Programme (NAMP): Under NAMP, four air pollutants viz.
 SO2, NO2, PM10, and PM2.5 have been identified for regular monitoring at all locations.

Way Forward

- Changing Approach:
 - India needs to change its approach and bring out effective policies in order to improve air quality and reduce pollutants to levels considered acceptable by the <u>World Health</u> <u>Organisation (WHO)</u>.
- Close Coordination Required:
 - Curbing air pollution requires not only tackling its specific sources, but also close coordination across local and national jurisdictional boundaries.
 - **Regional cooperation** can help implement **cost-effective joint strategies** that leverage the interdependent nature of air quality.

UPSC Civil Services Examination Previous Year Question (PYQ)

<u>Prelims</u>

Q. In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index? (2016)

- 1. Carbon dioxide
- 2. Carbon monoxide
- 3. Nitrogen dioxide
- 4. Sulfur dioxide
- 5. Methane

Select the correct answer using the code given below:

(a) 1, 2 and 3 only
(b) 2, 3 and 4 only
(c) 1, 4 and 5 only
(d) 1, 2, 3, 4 and 5

Ans: (b)

<u>Mains</u>

Q. Describe the key points of the revised Global Air Quality Guidelines (AQGs) recently released by the World Health Organisation (WHO). How are these different from its last update in 2005? What changes in India's National Clean Air Programme are required to achieve revised standards? **(2021)**

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