On the National Clean Air Programme

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Why in News?

When the Indian govt launched the National Clean Air Programme (NCAP) in 2019, it was to cut the concentration of atmospheric Particulate Matter (PM) by 20-30% by 2024, from 2017 levels. This was later revised to 40% by 2026.

What is National Clean Air Programme (NCAP)?

- **About**
    - NCAP was launched in January 2019 to improve air quality through a city- specific action plan.

    - Under NCAP, cities continuously violating annual PM levels in India need to prepare and implement annual Clean Air Action Plans (CAAPs).
- **Objectives**
    - Stringently implementing mitigation measures to prevent, control, and abate air pollution
    - Strengthening an air quality monitoring network across the country
    - Increasing public awareness and capacity building measures
- **Funding**
    - For NCAP, the Ministry of Environment, Forest, and Climate Change has allocated ₹10,422.73 crore.

Performance of NCAP

- **Air Information Centers and Pollution Forecasting**
    - NCAP aimed to establish air information centres at central and regional levels by 2020.
    - However, as of December 2023, only the central '**Portal for Regulation of Air Pollution in Non-Attainment Cities (PRANA)**' portal by Central Pollution Control Board (CPCB) is functional.
    - Despite NCAP's goal for air pollution forecasting systems in non-attainment cities by 2022, only Delhi has a functional system by December 2023.
- **Committee Setup and Utilization of Funds**
    - Committees at various levels were proposed by NCAP, but their functionality, transparency, and public availability of information remain challenging.
    - Out of total allocations of 1253 crore to 82 non-attainment cities, only 498 crores (40%) was utilized till November 2023.
    - The trend reflects significant underutilization of the allocated funds.
- **Monitoring Stations and Continuous Ambient Air Quality Monitoring Stations**:
    - NCAP envisaged augmenting the manual monitoring stations under the National Air Quality Monitoring Programme (NAMP) from the existing 703 stations to 1,500 stations by 2024.
    - However, as of December 2023, only 931 manual stations were operational, with a minimal increase from the previous year, showing critical shortfall against the target.
    - NCAP aimed for 150 Continuous Ambient Air Quality Monitoring Stations (CAAQMS), but 531 stations are currently operational, indicating very good progress.
    - The rural monitoring network consists of 26 manual stations covering limited areas.
    - Efforts to set up 100 monitoring stations by 2024 in rural areas are yet to be fully realized and seem difficult to achieve.

What are the challenges faced by NCAP?

- **Implementation by States has been inconsistent**
    - Most cities proactively submitted their CAAPs yet their implementation has been inconsistent.
    - Implementation delays hinder NCAP's success.
- **Lack of standard operating procedures**
    - There is also a lack of standard operating procedures for the implementation process.

    - Time-consuming tasks required to implement control measures and the absence of well-defined timelines create further delays.
- **Other Challenges**
    - Other challenges include bureaucratic red-tape and lingering doubts regarding the effectiveness of proposed mitigation measures.

Way forward

- **Emissions Inventory (EI) and Source Apportionment (SA) studies are critical**
    - EI and SA studies are critical to identify and understand the origins of pollution.
    - EIs provide insights into local pollution sources and their contributions. EIs also help shape targeted pollution control strategies.
    - SA studies offer a detailed analysis of contributions from various pollution sources, including those located afar.
- **Important role of Air Quality (AQ) modelling**
    - EIs and SA studies have limitations.
        - EIs have limitations in assessing the impact of transboundary pollution sources — such as when determining the effect of stubble-burning outside Delhi on the city's air quality.
        - Similarly, SA studies can't distinguish between the origins of pollution, like, say, emissions from diesel trucks 200 m away and 20 km away, because diesel emissions have similar chemical signatures.
    - These gaps can be bridged through AQ modelling, which informs our understanding of pollution dispersion, including from distant sources.
- **Swift implementation on the ground**
    - Beyond the need for data and models, swift implementation on the ground is essential.
    - For this, implementation agencies should seek to reduce bureaucratic red tape by utilising shared, standardised technical evaluations.

Conclusion

The journey towards cleaner air in India, as charted by NCAP, will be difficult but is necessary. NCAP's success hinges on a multifaceted approach that combines rigorous scientific studies, strategic funds, and swift and effective implementation of mitigation measures.

Q.1. What is National Air Quality Monitoring Programme (NAMP)?

The National Air Quality Monitoring Programme (NAMP) is a nationwide initiative that monitors air quality across India. The Central Pollution Control Board (CPCB) oversees the program, which has 804 active stations in 344 cities and towns across 28 states and 6 union territories.

Q.2. What is Portal for Regulation of Air Pollution in Non-Attainment Cities (PRANA)?

The Portal for Regulation of Air Pollution in Non-Attainment Cities (PRANA) is a portal that helps monitor the implementation of India's National Clean Air Programme (NCAP) in non-attainment cities. The Central Pollution Control Board (CPCB) hosts the portal. PRANA helps track the physical and financial status of the implementation of city air action plans and provides information on air quality management.

Source: On the National Clean Air Programme | Explained

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