



Trends in Air Pollution: CPCB

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Why in News

According to a recent **study** commissioned by the **Central Pollution Control Board** (CPCB), the **rate of increase in pollution levels** in southern and eastern India is far greater than the Indo-Gangetic plain (IGP).

It has also found that **air pollution in rural areas has increased at par with urban India.**

Key Points

- **About the Study:**

- It was **jointly carried out by IIT-Delhi and CPCB** and analysed **data from 2000 to 2019.**

Currently, the process of **collating and analysing the 2020 data is going on** as well and a **decrease in pollution levels is expected** in the coming years.

- The study, **conducted on the basis of satellite data**, is the **first of its kind to look at air pollution spatially.**

Spatial mapping of pollution will be **vital for** the government to form its future policies under the **National Clean Air Programme** (NCAP).

- **Findings:**

- The **rate of increase of PM_{2.5}** over eastern and southern India is **more than 1.6% per year** during this period, and **less than 1.2% annually** in the IGP.
 - PM_{2.5} are fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.
 - It is a major pollutant affecting the environment, human health and the climate.

- 436 cities/towns with a population of more than 1 lakh in 2019 **exceeded** the **National Ambient Air Quality Standard (NAAQS)** of **40 micrograms per metric cube** ($\mu\text{g}/\text{m}^3$).
- Population-weighted 20-year averaged $\text{PM}_{2.5}$ over India is $57.3 \mu\text{g}/\text{m}^3$, with a **larger increase observed between 2010 and 2019** than in the 2000-09 period.

As of 2019, **99.5% of districts** in India did not meet the **World Health Organisation (WHO)** air quality guideline of $10 \mu\text{g}/\text{m}^3$.

- **Statewise Data:**

- **Ambient $\text{PM}_{2.5}$ exceeds the annual NAAQS** of $40 \mu\text{g}/\text{m}^3$ in every state except for Jammu and Kashmir (J&K), Ladakh, Himachal Pradesh, Sikkim, Arunachal Pradesh, Manipur and Nagaland.
- The **$\text{PM}_{2.5}$ level in the IGP**, which has a population of more than 70 crore, and the western arid region is **more than double** the annual

NAAQS.

STATES WITH HIGH $\text{PM}_{2.5}$ INCREASE		
State	Urban	Rural
Kerala	24.2%	21.9%
Goa	36.4%	37.3%
Andhra Pradesh	20.1%	18.9%
Maharashtra	24%	21%
Odisha	28%	28%

- In Odisha and Chhattisgarh, which have reported among the highest increase in air pollution in **eastern India**, this is **due to mining activities and thermal coal power plants**.
- In **southern India**, **high urbanisation in and around cities** such as Bengaluru or Hyderabad has led to increased emissions.
- **Unfavourable meteorological conditions** in eastern and peninsular India, along with increase in emissions, has led to an overall increase in $\text{PM}_{2.5}$.

- **Analysis:**
 - While in absolute terms the level of **air pollution continues to be the highest in the IGP**, the **rate of increase in air pollution is much higher in southern India** and certain areas of **eastern India**.
 - If the focus continues to be on IGP and the increasing pollution (levels) in southern and eastern India is not addressed now, in **another 10 years these regions will also have the same problem as northern India does**.
- **Urban-rural Divide:**
 - On PM2.5 levels cutting across the urban-rural divide, the study cites the example of **Delhi**, where it **increased by 10.9%** between **2001 to 2015**.
During the same period, PM2.5 exposure in **rural India rose by 11.9%**.
 - A steady air pollution rise in rural India is **due to high reliance on solid fuel for domestic use**, which is the **largest contributor** to ambient PM2.5 in India.
This implies that **poor air quality in India is not an urban-centric problem**.
 - **Air pollution in rural areas is rarely discussed** with air pollution policies which continue to focus on urban centres.
 - Schemes like the **Pradhan Mantri Ujjwala Yojana** (PMUY) are expected to decrease the pollution levels but it **lacks a mechanism to track its progress**.
Since the household sources contribute more than 50% to ambient PM2.5 in rural areas, successful implementation of PMUY with sustained usage should arrest or even reverse the increasing trend in rural PM2.5.

Source: IE