

PRESS RELEASE

Air pollution causes increased mortality across the Indo-Gangetic plain, finds report
CEED & IIT-Delhi report reveals massive air pollution spike in UP and Bihar

Lucknow, 22 May 2018: Worsening air quality in the last two decades is one of the major reasons behind high pre-mature deaths, finds a new report titled 'Know What You Breathe¹', prepared by IIT-Delhi and supported by the Centre for Environment and Energy Development (CEED). The study finds that in the urban areas of Uttar Pradesh, Bihar and Jharkhand, the annual mortality is in the range of 150-300 persons per year for every 100,000 (1 lakh) persons. Whereas the level of PM_{2.5} is more than twice the National Annual Standard² and eight times that of the WHO³ annual permissible limits in all the studied cities, with the exception of Ranchi, the state capital of Jharkhand.

The report studies the annual mean PM_{2.5} concentration of eleven north Indian cities using the satellite data of the past 17 years (1). Out of these 11 cities, 8 are also listed in the global air quality assessment report of the World Health Organisation (WHO) titled 'Global Ambient Air Quality Database' (2018)⁴.

With specific findings related to Uttar Pradesh, the report highlights that Meerut (99.2 µg/m³) and Agra (91 µg/m³), situated on the western flanks of the Indo-Gangetic plain are the most polluted. The level of pollution is moving downwards from the west to the east of the Indo-Gangetic plain. In Uttar Pradesh, the rise in particulate matter pollution is '**Alarming**' in Meerut, Agra, Lucknow, Gorakhpur and Varanasi, while it is '**Moderate**' in Kanpur and Allahabad. Coming to the annual premature mortality due to rising air pollution, Kanpur tops the list with 4,173 deaths per year, followed by Lucknow with 4127 deaths per year. If the annual premature mortality numbers are converted to every one lakh persons, Meerut and Agra have the highest number of 290 death per one lakh persons. Children are the worst victims of air pollution in Meerut. Further, post-monsoon (October-November) and winter (December-February) seasons have a high pollution exposure due to calm weather and lower atmospheric boundary layer.

¹ [CEED & IIT Report \(Know What You Breathe\)](#)

² <http://cpcb.nic.in/air-quality-standard/>

³ [http://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](http://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

⁴ <http://www.who.int/airpollution/data/cities/en/>

While talking about the report Mr. Abhishek Pratap, Programme Director, CEED said, “We are witnessing a public health emergency in our cities as polluting air is choking our lungs. The state and union governments need to take note of this alarming situation and create a national clean air action plan, which is ambitious, effective and focuses on time-bound implementation”. Mr. Pratap further added that, “Even the best efforts to reduce air pollution will turn to dust without a proper monitoring system. Without data, you are basically driving blind and are sure to crash.”

While highlighting the key findings of the report, Ms. Ankita Jyoti, Senior Programme Officer, CEED said, “The analysis of aerosol composition in our study indicates a higher percentage of sulphates, organic carbons and black carbon, which are emitted primarily from anthropogenic sources. The high rate of unplanned urbanisation is the main anthropogenic source of rapid increase in the pollution levels. Meanwhile, meteorology and topography play a major role in modulating pollution levels as well.” She further added that “Residential (cooking, heating and lighting) sources are the largest contributor to PM_{2.5} emission in these cities followed by industry, transport and energy sectors.”

While speaking on the required actions for improving air quality in the cities of the Indo-Gangetic region, Dr. Sagnik Dey, Associate Professor at Centre for Atmospheric Sciences, IIT-Delhi and author of the report ‘Know What You Breathe’, said “One of the critical factors in the air quality management plan is to set targets in short, medium and long-term (of meeting air quality standards), along with a detailed implementation plan. To improve the air quality in the region, we first need to transit towards cleaner fuel for cooking. If the National Air Quality Guideline is achieved, the premature mortality burden would reduce by over 20 % in Agra, Kanpur and Lucknow; by 20% in Meerut and by 10–20% in other cities such as Allahabad, Gaya, Gorakhpur, Muzaffarpur, Patna and Varanasi,” he added.

The report stresses the need to promote public awareness, inter-state coordination and an efficient regional clean air action plan for the Indo-Gangetic plain, along with a source apportionment study for each city as the most plausible action agenda for improving the air quality in these cities.

Contact for more information

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