

Press Note: Chandrapur's High Industrial Pollution Requires Targeted Action Beyond Business As Usual Norms.

Smog Tales: Know your city and what you breathe' is an air pollution awareness campaign by environmental research organisation iFOREST. The ongoing information campaign brings attention to the air pollution crisis affecting India's smaller cities and urges collective action. Season 1 of the campaign, launched in 2024, covered rapidly growing cities in Northern India such as Patna, Guwahati, Meerut, Baddi, and Chandigarh. In Season 2 this year, the campaign shifts focus to Maharashtra's burgeoning urban centers—Thane, Amravati, Nagpur, Chhatrapati Sambhajinagar and Chandrapur

With the arrival of winter and large-scale construction and urban expansion, our analysis highlights severe air pollution levels in Chandrapur

Key Findings:

1) Monitoring stations coverage

The city currently has two CAAQMS and six manual monitoring stations, which meets CPCB norms based on 2011 pollution levels for cities with populations below five lakhs. Under these norms, only one residential CAAQMS is mandated. However, given the city's significant industrial footprint, this monitoring network is inadequate. While one CAAQMS is located in the MIDC industrial area, the northern and southern industrial belts remain uncovered. Overall, air quality monitoring is uneven, with clear gaps in the northern and southern parts of the city, particularly across industrial zones.

2) High Levels of Particulate Matter

All annual averages with sufficient data from both CAAQMS stations show PM2.5 and PM10 levels exceeding the NAAQS limit of $60 \mu\text{g}/\text{m}^3$. In 2025, Chauhan Colony recorded PM10 concentrations of $116 \mu\text{g}/\text{m}^3$, about 1.9 times the NAAQS, while MIDC Khutala reported $74 \mu\text{g}/\text{m}^3$, around 1.2 times the limit. For MIDC Khutala, these exceedances are observed even without fully accounting for peak winter months; insufficient - data for January, November, and incomplete December month data, indicating a likely underestimation of annual concentrations

3) Peak Pollution Hours

Data shows a sharp rise in PM2.5 and PM10 concentrations during the late evening hours (6–8 PM), with an additional morning peak for PM10 between 9 AM and 10 AM.

SO₂ remains low throughout the day, while NO₂ stays generally low but increases slightly between 6 PM and 8 PM, however both the pollutants stayed below the NAAQS

4) Seasonal Trends and Sources

Winter months (November–January) show the highest pollution levels, with pronounced spikes in both PM2.5 and PM10. Concentrations rise by about 42 percent for PM2.5 and 58 percent for PM10 above the annual average, while NO₂ levels also increase due to stagnant meteorological conditions and higher emissions. During summer (March–May), PM2.5 levels remain roughly 20 percent above the annual average. The monsoon season (June–August) is the cleanest period, with PM2.5 and PM10 concentrations dropping by around 56 percent and 55 percent below the annual average, respectively.

5) Data Trends and Quality:

Data quality at the Chandrapur monitoring network is uneven. Although the city has two stations, only Chauhan Colony provides consistent and usable data. The MIDC Khutala station has poor data availability, with the most recent year containing enough observations dating back to 2021. Even in the current year, data for key winter months such as January and November are insufficient, making it difficult to reliably assess present air pollution levels across the city.

Data availability (MIDC Khutala and Chauhan Colony)

MIDC Khutala - 2023				MIDC Khutala - 2024				MIDC Khutala - 2025							
	PM2.5	PM10	NO2	SO2		PM2.5	PM10	NO2	SO2		PM2.5	PM10	NO2	SO2	
Jan	82%	92%	89%	68%	Jan	11%	0%	16%	50%	Jan	58%	38%	77%	5%	
Feb	14%	12%	44%	32%	Feb	7%	13%	53%	53%	Feb	70%	64%	94%	5%	
Mar	12%	7%	38%	33%	Mar	58%	67%	67%	74%	Mar	79%	79%	94%	53%	
Apr	24%	17%	34%	23%	Apr	61%	59%	67%	71%	Apr	83%	95%	91%	70%	
May	16%	9%	45%	37%	May	37%	34%	43%	37%	May	78%	90%	60%	73%	
Jun	41%	46%	44%	35%	Jun	43%	48%	66%	44%	Jun	64%	88%	80%	74%	
Jul	43%	43%	33%	33%	Jul	51%	41%	53%	40%	Jul	67%	80%	83%	85%	
Aug	29%	24%	28%	50%	Aug	27%	56%	52%	44%	Aug	86%	91%	95%	94%	
Sep	35%	46%	52%	52%	Sep	0%	51%	52%	38%	Sep	75%	86%	89%	85%	
Oct	14%	53%	53%	53%	Oct	0%	26%	52%	39%	Oct	81%	82%	87%	90%	
Nov	6%	26%	51%	52%	Nov	0%	0%	53%	43%	Nov	45%	44%	50%	50%	
Dec	12%	3%	27%	34%	Dec	0%	5%	10%	6%	Dec					
Chauhan Colony - 2023				Chauhan Colony - 2024				Chauhan Colony - 2025							
	PM2.5	PM10	NO2	SO2		PM2.5	PM10	NO2	SO2		PM2.5	PM10	NO2	SO2	
Jan	92%	92%	93%	92%	Jan	87%	88%	94%	93%	Jan	81%	89%	89%	91%	
Feb	91%	91%	92%	91%	Feb	90%	85%	96%	94%	Feb	80%	89%	94%	94%	
Mar	89%	88%	94%	93%	Mar	90%	84%	94%	93%	Mar	84%	90%	94%	94%	
Apr	88%	87%	89%	88%	Apr	91%	91%	92%	91%	Apr	77%	84%	91%	90%	
May	81%	80%	85%	81%	May	86%	54%	93%	91%	May	65%	64%	75%	75%	
Jun	81%	82%	93%	91%	Jun	86%	88%	86%	85%	Jun	57%	59%	67%	64%	
Jul	81%	85%	81%	89%	Jul	81%	82%	88%	85%	Jul	79%	81%	91%	82%	
Aug	91%	89%	94%	94%	Aug	93%	93%	93%	92%	Aug	74%	78%	89%	90%	
Sep	93%	67%	95%	94%	Sep	91%	91%	94%	93%	Sep	76%	80%	89%	90%	
Oct	92%	90%	94%	93%	Oct	85%	85%	94%	94%	Oct	82%	86%	97%	97%	
Nov	93%	91%	94%	93%	Nov	84%	84%	89%	89%	Nov	91%	91%	98%	99%	
Dec	83%	87%	93%	93%	Dec	85%	89%	93%	92%	Dec					

Expert Quotes

Suresh Chopane, President, Green India Society

- We began working on air pollution in Chandrapur in **2009–10**, when the pollution score was **83.88**.
- From **2010 to 2018**, Chandrapur consistently ranked as the **most polluted city in Maharashtra**.
- Our organisation published the **first study** highlighting Chandrapur's pollution crisis.
- Year-wise pollution data analysis shows that **years with monsoon seasons recorded the lowest pollution levels**.

- We are taking action against industries that are contributing to pollution, with enforcement measures focused on identified violators.”
- Under the GRAP framework, we circulate the action plan among all concerned authorities and advise them to follow the prescribed measures in a coordinated manner.
- Monitoring stations are installed using funds provided by the government, and we promptly set up new stations at additional locations as soon as funds are sanctioned.

Mazhar Ali, District Correspondent, Chandrapur – *The Times of India*

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- Chandrapur has seven functional industrial units, of which two are more than 35 years old.
- Flue Gas Desulphurisation (FGD) systems continue to remain exempted, despite clear pollution concerns.
- The Chandrapur Thermal Power Plant has been seized multiple times, with bank guarantees confiscated on several occasions due to non-compliance.
- Between April 2023 and March 2025, 12,867 respiratory health cases were reported.
- During the same period, 821 pulmonary tuberculosis cases were recorded at Chandrapur Medical College.
- The pollution impact radius extends up to 15 km, including areas around Western Coalfields Limited (WCL) mines, warranting an assessment of how much of their CSR funds have been utilised for pollution mitigation.
- Discussions on air pollution must be encouraged at the school level, including through competitions and awareness programmes, to build early public consciousness.