Press Note

Chhatrapati Sambhajinagar Needs Stronger Pollution Monitoring To Address Worsening Air Quality: iFOREST Study

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 Chhatrapati Sambhajinagar.

Key Findings:

1) **Monitoring stations coverage**
   Sufficient number of manual monitoring stations are present in the city however, Continuous Ambient Air Quality Stations (CAAQMS) is less than the prescribed CPCB standards. There is lack of monitoring stations in the northern and southern part of the city. To achieve adequate citywide coverage, Chhatrapati Sambhajinagar would need at least eight monitoring stations in total (5 CAAQMS and 3 manual). The city would need two more CAAQMS stations to meet this requirement.

2) **High Levels of Particulate Matter**
   All three CAAQMS stations reported PM2.5 and PM10 levels above the NAAQS limits, with Rachnakar Colony showing the highest concentrations. PM10 touched 174 µg/m³ in January 2024, far higher than levels seen at other stations or in previous years. Annual PM10 concentrations at the other stations were also elevated: More Chowk–Waluj averaged 69 µg/m³ and MIDC Chilkalthana averaged 89 µg/m³, exceeding the NAAQS threshold by 1.15 times and 1.48 times, respectively.

3) **Peak Pollution Hours**
   Data shows a sharp rise in PM2.5 and PM10 concentrations during the late evening

hours (10–11 PM), with an additional morning peak for PM10 between 9 AM and 10 AM. SO_2 remains low throughout the day, while NO_2 stays generally low but increases between 6 PM and 8 PM, reflecting heightened vehicular activity during the evening traffic window.

4) **Seasonal Trends and Sources**

Winter months (November–January) are the most polluted, with sharp spikes in both PM2.5 and PM10. PM2.5 rises by 48 percent above the annual average, and NO_2 also climbs due to stagnant air and increased emissions. During summer months (March–May) concentrations remain about 12 percent above the annual average. The monsoon period (June–August) was found to be the cleanest phase of the year, with decrease in PM2.5 by around 52 percent below the annual average and bringing PM10 and SO_2 to their lowest levels.

5) **Data Trends and Quality:**

The data coverage for Chattrapati Sambhaji hasn't been at the same level compared to other Maharashtra cities we covered in Smog Tales. Only one station, More Chowk Waluj, has data going back to 2019, but the dataset is uneven (missing monthly data). Reliable data is available only from 2023; earlier years have several months with insufficient information to calculate annual averages. The station also doesn't capture PM2.5 levels for any month in 2024 and 2025.

The other two stations have issues as well. Even in 2024, Rachnakar Colony lacks enough data points for June, July, and August, and both stations only have data starting from July 2023.

Data availability for Rachnakar_Colony – 2024

	PM2.5	PM10	NO2	SO2
Jan	97%	97%	99%	99%
Feb	90%	90%	97%	97%
Mar	86%	86%	91%	91%
Apr	78%	79%	83%	80%
May	96%	96%	97%	96%
Jun	34%	34%	37%	36%
Jul	0%	0%	0%	0%
Aug	4%	4%	4%	4%
Sep	99%	99%	99%	99%
Oct	98%	98%	98%	98%
Nov	96%	96%	96%	96%
Dec	94%	94%	95%	96%

Expert Quotes

Shri. Ravi Gyan Prakash Choudhary , Founder and Director Prayas Foundation

Pollution must be stopped at its source — that is the only real solution.

Industrial infrastructure and waste burning are choking our cities, and we must hold polluters accountable."

Clean air is the government's responsibility, but citizens must actively demand it.

Collective voices of people can drive real change — community action is our greatest strength.

Measures like fountains only settle dust temporarily — we need long-term, decentralised solutions like composting and better governance.

Dr. Sachin Joshi, Pulmonologist, Shwas Clinic.

We're witnessing a sharp rise in respiratory cases in government hospitals, including bacterial pneumonia. Many patients are coming from industrial belts where pollution levels are far worse.

With schools open, children are now directly exposed to polluted air. Increasingly, they are arriving with persistent cough, irritation and breathing difficulties.

Indoor air can be just as harmful — even mosquito coils can irritate the lungs when used without ventilation. People must be aware of these risks inside their homes.

Air pollution is no longer an invisible threat — it's filling our wards with sick patients. We urgently need stronger public awareness and local action to protect health.

Pollution does not affect everyone equally. People living near industrial and high-traffic zones face more severe symptoms — clean air must be a basic right for all.

Shri Nikhil Nirkhee, Principal Correspondent, Maharashtra Times.

Garbage burning happens throughout the year, and both citizens and workers lack awareness about its harmful impact.

Vehicular pollution is increasing, and new infrastructure like Samruddhi Marg has caused deforestation, worsening air quality.

Century-old trees at key junctions like Nagar Naka–Daulatram T-Point are now under threat of being cut.

The city's AQI rarely falls below 150, and pollution is driving a rise in pneumonia and other respiratory illnesses.

Strong public awareness, proper waste management, and strict action against open burning are urgently needed to protect health and the environment.