

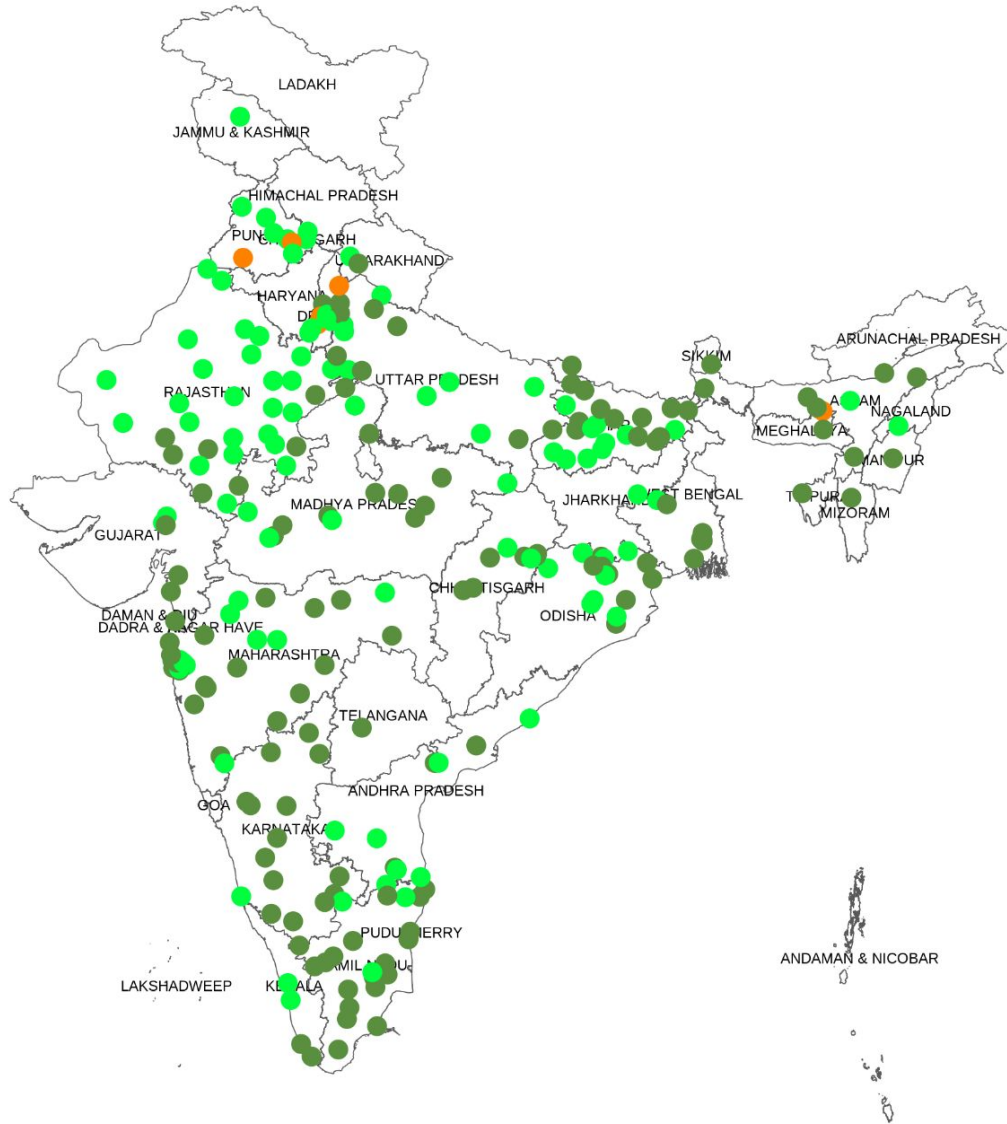


CREA

Centre for Research on Energy and Clean Air

Monthly ambient air quality snapshot for India

May 2025



● Good ● Satisfactory ● Moderate

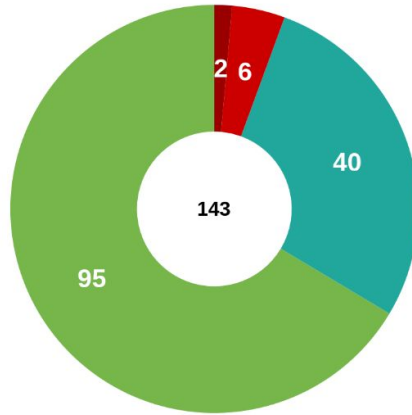
Key highlights

- **Compliance:** In May 2025, **235 out of 241 cities** with more than 80% of the days with continuous ambient air quality monitoring stations (CAAQMS) data available **recorded PM_{2.5} concentrations below India's National Ambient Air Quality Standards (NAAQS) of 60 µg/m³. Only 14 cities complied with the World Health Organization's (WHO) daily safe guideline concentration of 15 µg/m³.**
 - **NCAP cities:** The monthly average PM_{2.5} levels in three National Clean Air Programme (NCAP) cities (out of 98 cities with more than 80% of days with data) surpassed India's daily NAAQS for PM_{2.5}, while 97 cities exceeded the WHO's daily guideline.
 - **Non-NCAP cities:** Among the 143 non-NCAP cities with over 80% of days with CAAQMS data, 130 cities reported monthly average PM_{2.5} levels above the WHO daily guideline. Only three cities exceeded the daily NAAQS.
- **AOI category:** **In May 2025, the number of cities with 'Good' (0-30 µg/m³) air quality stood at 135. Meanwhile, cities experiencing 'Satisfactory' (31-60 µg/m³) air quality were recorded at 100. Additionally, six cities reported 'Moderate' (61-90 µg/m³) air quality.** This marked an improvement compared to April 2025, when only 77 cities had 'Good' air quality; 150 were in the 'Satisfactory' category, 19 were in the 'Moderate' category, and two cities fell in 'Poor' (91-120 µg/m³) category.
- **Most polluted city:** **Byrnihat ranked as the most polluted city in India in May 2025, recording a monthly average PM_{2.5} concentration of 80 µg/m³, surpassing the daily NAAQS limit of 60 µg/m³ 66% of the days in the month.**
 - Byrnihat recorded four days in the 'Very Poor' category, five days in the 'Poor' category, and ten days each in the 'Moderate' and 'Satisfactory' categories.
 - **Delhi was the second most polluted city in India during May 2025, with monthly average PM_{2.5} of 67 µg/m³.**
 - Throughout May, Delhi recorded 14 days in the 'Satisfactory' category, 13 days in the 'Moderate' category, three days in the 'Poor' category, and one day in the 'Very Poor' category. This 'Very Poor' day occurred on May 15 due to dust storms.

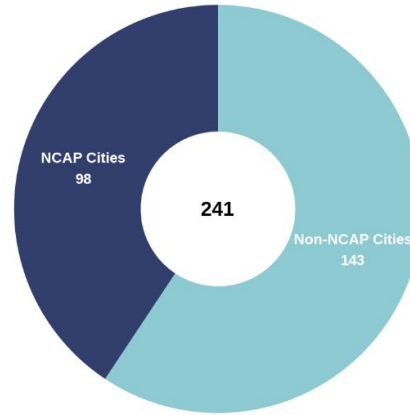
- Muzaffarnagar, Bathinda, Gurgaon, Mandi Gobindgarh, Rajgir, Ghaziabad, Bhiwadi and Siwan were the other cities in the top 10 polluted list.
- Uttar Pradesh, Punjab and Bihar accounted for two cities each in India's top 10 most polluted cities and one city each from Assam, Haryana, Rajasthan and Delhi.
- **Cleanest city: Aizawl, in the state of Mizoram, was the cleanest city in India during May, with a monthly average $PM_{2.5}$ of $4 \mu g/m^3$.** The top 10 cleanest cities comprise three cities from Karnataka, and one each from Mizoram, Tamil Nadu, Tripura, Manipur, West Bengal, Madhya Pradesh, and Bihar.
- **Frequency in top 10 polluted cities:** A total of 75 cities were featured in the daily top 10 most polluted cities list in May 2025. Of these, 23 cities made an appearance at least five times over the 31-day period, topped by Delhi, which featured the most times (18 days), followed by Byrnihat (17 days), Mandi Gobindgarh (17 days), Muzaffarnagar (17 days), Rajgir (13 days), Bathinda (12 days), and Ludhiana (10 days).
- **State level analysis:**
 - **Most Polluted State:** Punjab had highest of two cities with monthly average $PM_{2.5}$ above NAAQS. Additionally, once city each in Assam, Haryana, and Uttar Pradesh along with Delhi also breached the NAAQS limit.
 - **State capitals:** Among the capital cities, Delhi was the only one with average $PM_{2.5}$ levels above the NAAQS. Some capital cities such as Puducherry, Imphal, Agartala, and Aizawl had $PM_{2.5}$ concentrations below WHO guidelines.
- **Megacities: With the exception of Delhi, all other megacities, such as Chennai, Mumbai, Kolkata, and Bangalore had monthly average $PM_{2.5}$ below NAAQS.** Also, Chennai, Mumbai, Kolkata, and Bangalore saw all their days in May 2025 falling within the 'Good' and 'Satisfactory' category. However, all megacities exceeded daily WHO guideline.

Number of cities vs frequency of days with PM_{2.5} concentration above NAAQS and WHO guidelines – May 2025

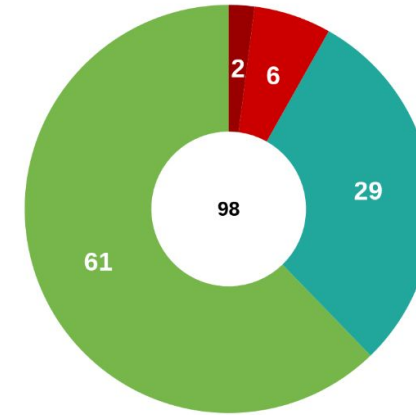
Categorisation of non-NCAP cities
against compliance to NAAQS guidelines



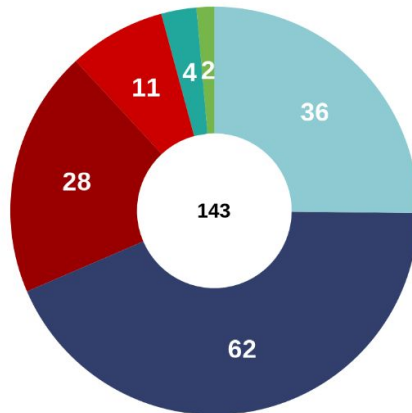
Total # of cities with >80% of the days
with CAAQMS data



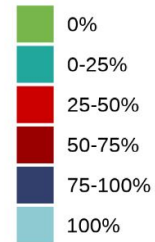
Categorisation of NCAP cities
against compliance to NAAQS guidelines



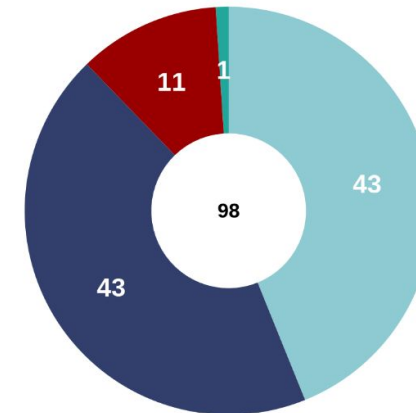
Categorisation of non-NCAP cities
against compliance to WHO guidelines



% of days above standard



Categorisation of NCAP cities
against compliance to WHO guidelines



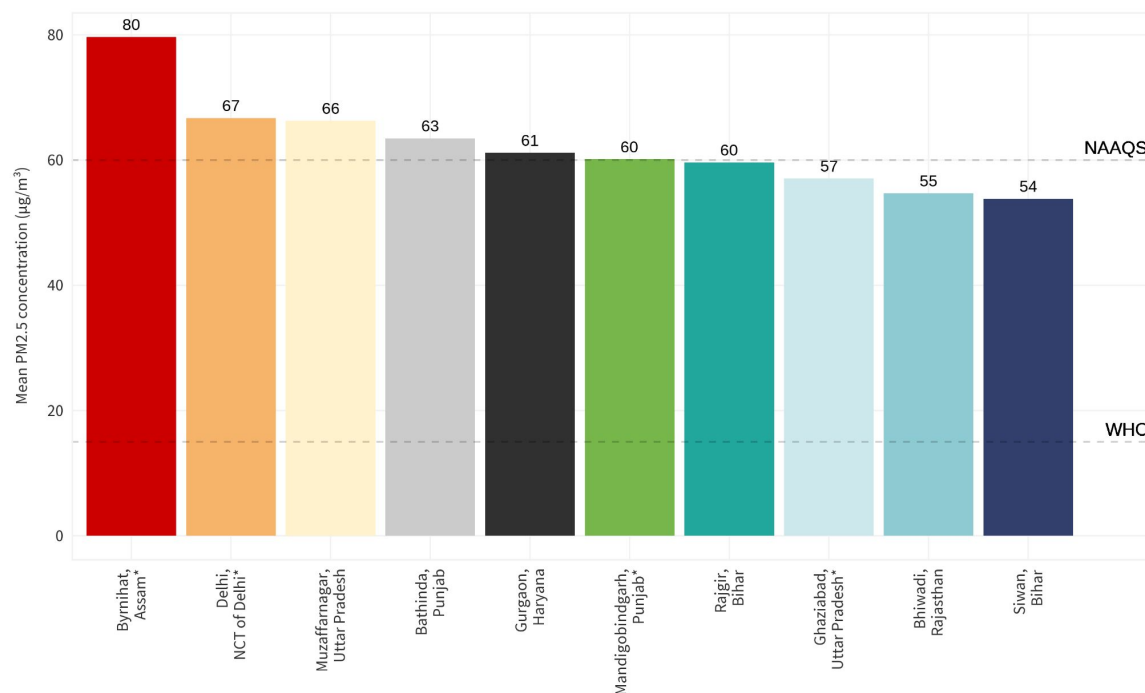
Top 10 most polluted cities in India by PM_{2.5} concentration – May 2025

Days in respective AQI categories based on PM_{2.5} (µg/m³) – May 2025

City	Monitored days	Good (0-30)	Satisfactory (31-60)	Moderate (61-90)	Poor (91-120)	Very poor (121-250)	Severe (>250)
Byrnihat	29	0	10	10	5	4	0
Delhi	31	0	14	13	3	1	0
Muzaffarnagar	31	1	13	14	2	1	0
Bathinda	30	6	8	13	2	1	0
Gurgaon	31	2	18	10	0	1	0
Mandi Gobindgarh	31	3	13	12	3	0	0
Rajgir	31	2	17	8	3	1	0
Ghaziabad	31	2	20	8	0	1	0
Bhiwadi	31	1	21	8	1	0	0
Siwan	31	6	17	5	0	3	0

Top 10 most polluted cities in India by PM_{2.5} concentration - May 2025

* indicates NCAP cities

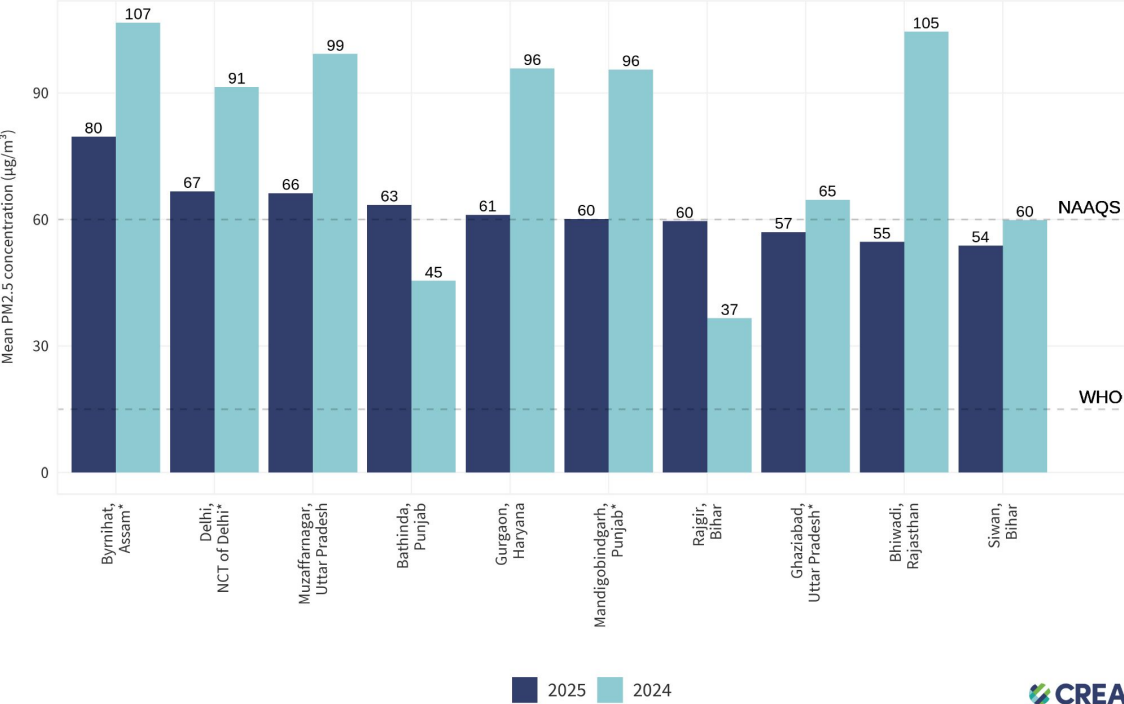


Status of PM_{2.5} concentration in May 2024 for top 10 most polluted cities in May 2025 across India

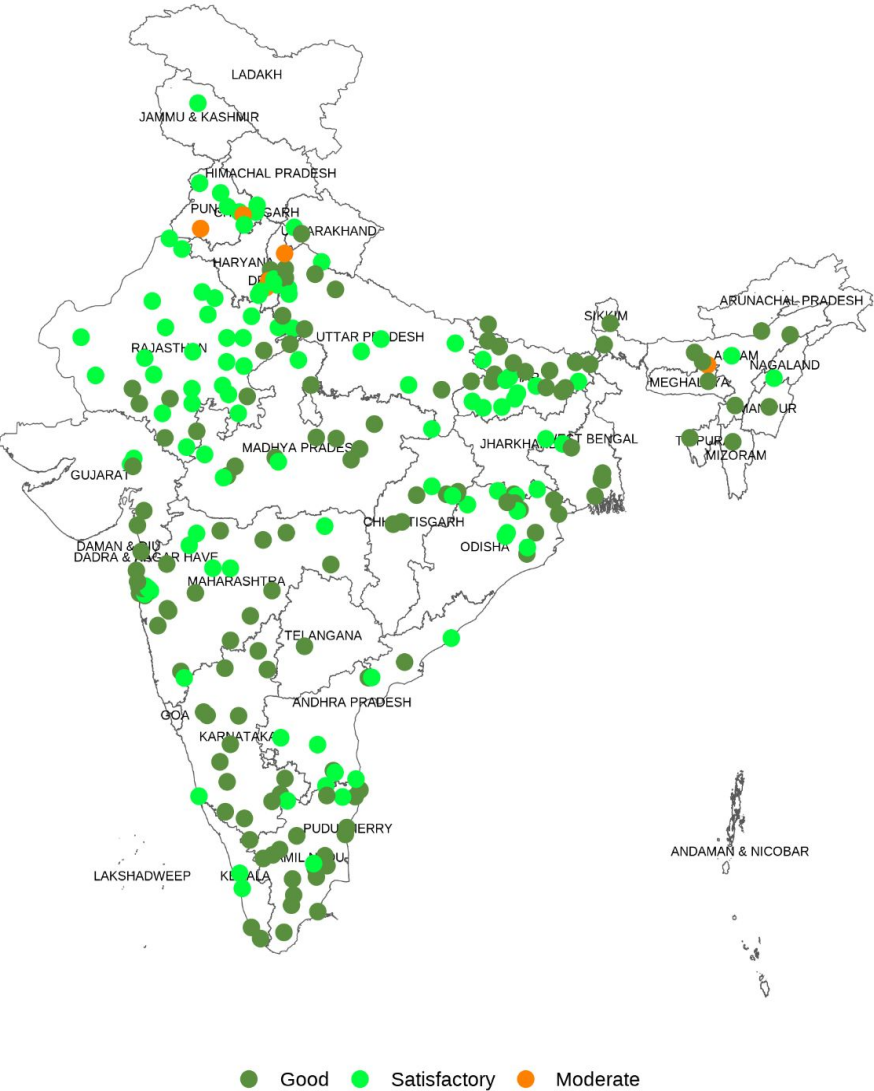
Days in respective AQI categories based on PM _{2.5} (µg/m³) – May 2024							
City	Monitored days	Good (0-30)	Satisfactory (31-60)	Moderate (61-90)	Poor (91-120)	Very poor (121-250)	Severe (>250)
Byrnihat	31	2	8	3	6	12	0
Delhi	31	0	3	14	9	5	0
Muzaffarnagar	31	0	3	13	9	6	0
Bathinda	31	6	20	5	0	0	0
Gurgaon	31	0	3	10	12	6	0
Mandi gobindgarh	31	0	3	16	4	8	0
Rajgir	31	15	14	1	0	1	0
Ghaziabad	31	0	14	13	4	0	0
Bhiwadi	31	0	0	8	16	7	0
Siwan	31	5	13	7	4	2	0

Year-on-year change of top 10 most polluted cities in India by PM2.5 concentration

* indicates NCAP cities



Distribution of cities by PM2.5 Air quality Index based on monthly average PM_{2.5} concentrations – May 2025



State/UT	Number of cities in AQI category (PM _{2.5} µg/m ³)				
	Good (0-30)	Satisfactory (31-60)	Moderate (61-90)	Poor (91-120)	Very Poor (121-250)
Andhra Pradesh	3	6	0	0	0
Arunachal Pradesh	1	0	0	0	0
Assam	4	1	1	0	0
Bihar	14	10	0	0	0
Chandigarh	0	1	0	0	0
Chhattisgarh	6	2	0	0	0
Gujarat	4	2	0	0	0
Haryana	0	1	1	0	0
Himachal Pradesh	0	1	0	0	0
Jammu and Kashmir	0	1	0	0	0
Jharkhand	0	1	0	0	0
Karnataka	15	1	0	0	0
Kerala	2	2	0	0	0
Madhya Pradesh	8	5	0	0	0
Maharashtra	20	10	0	0	0
Manipur	1	0	0	0	0
Meghalaya	1	0	0	0	0
Mizoram	1	0	0	0	0
NCT of Delhi	0	0	1	0	0
Nagaland	0	1	0	0	0
Odisha	9	7	0	0	0
Puducherry	1	0	0	0	0
Punjab	0	5	2	0	0
Rajasthan	8	26	0	0	0
Sikkim	1	0	0	0	0
Tamil Nadu	18	4	0	0	0
Telangana	1	0	0	0	0
Tripura	1	0	0	0	0
Uttar Pradesh	9	10	1	0	0
Uttarakhand	1	2	0	0	0
West Bengal	6	1	0	0	0

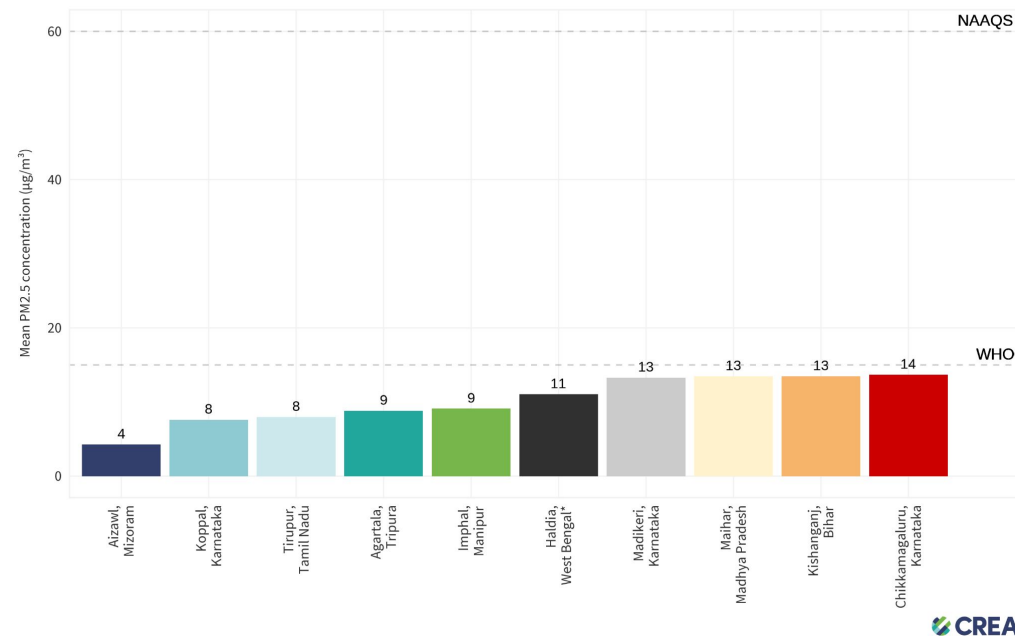
Top 10 cleanest cities in India by PM_{2.5} concentration – May 2025

Days in respective AQI categories based on PM_{2.5} (µg/m³) – May 2025

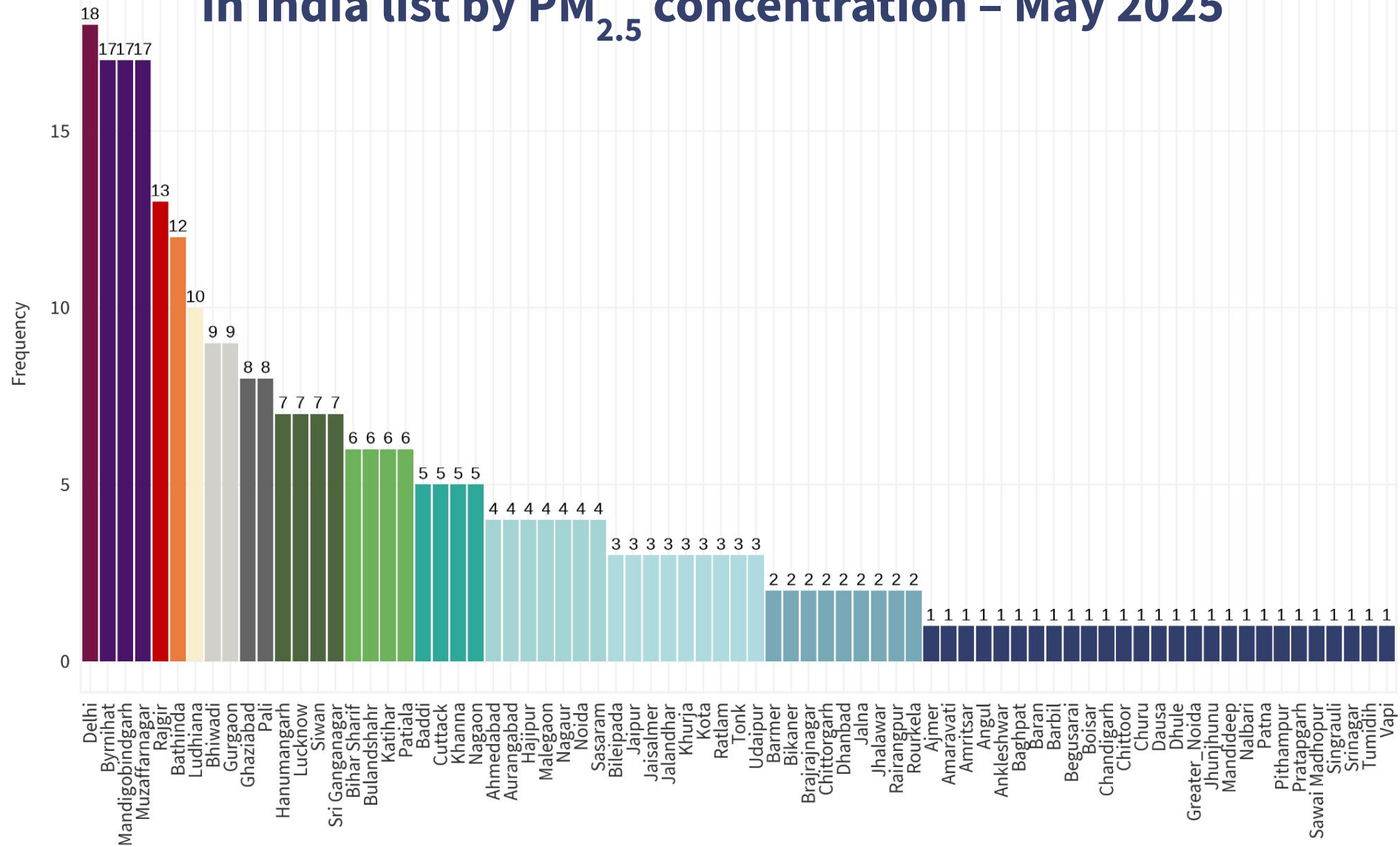
City	Monitored days	%Days > NAAQS	Good (0-30)	Satisfactory (31-60)	Moderate (61-90)	Poor (91-120)	Very poor (121-250)	Severe (>250)
Aizawl	28	0	28	0	0	0	0	0
Koppal	29	0	29	0	0	0	0	0
Tirupur	30	0	30	0	0	0	0	0
Agartala	31	0	31	0	0	0	0	0
Imphal	30	0	30	0	0	0	0	0
Haldia	31	0	31	0	0	0	0	0
Madikeri	31	0	31	0	0	0	0	0
Maihar	26	0	26	0	0	0	0	0
Kishanganj	31	0	29	2	0	0	0	0
Chikkamagaluru	31	0	31	0	0	0	0	0

Top 10 most cleanest cities in India by PM_{2.5} concentration - May 2025

* indicates NCAP cities

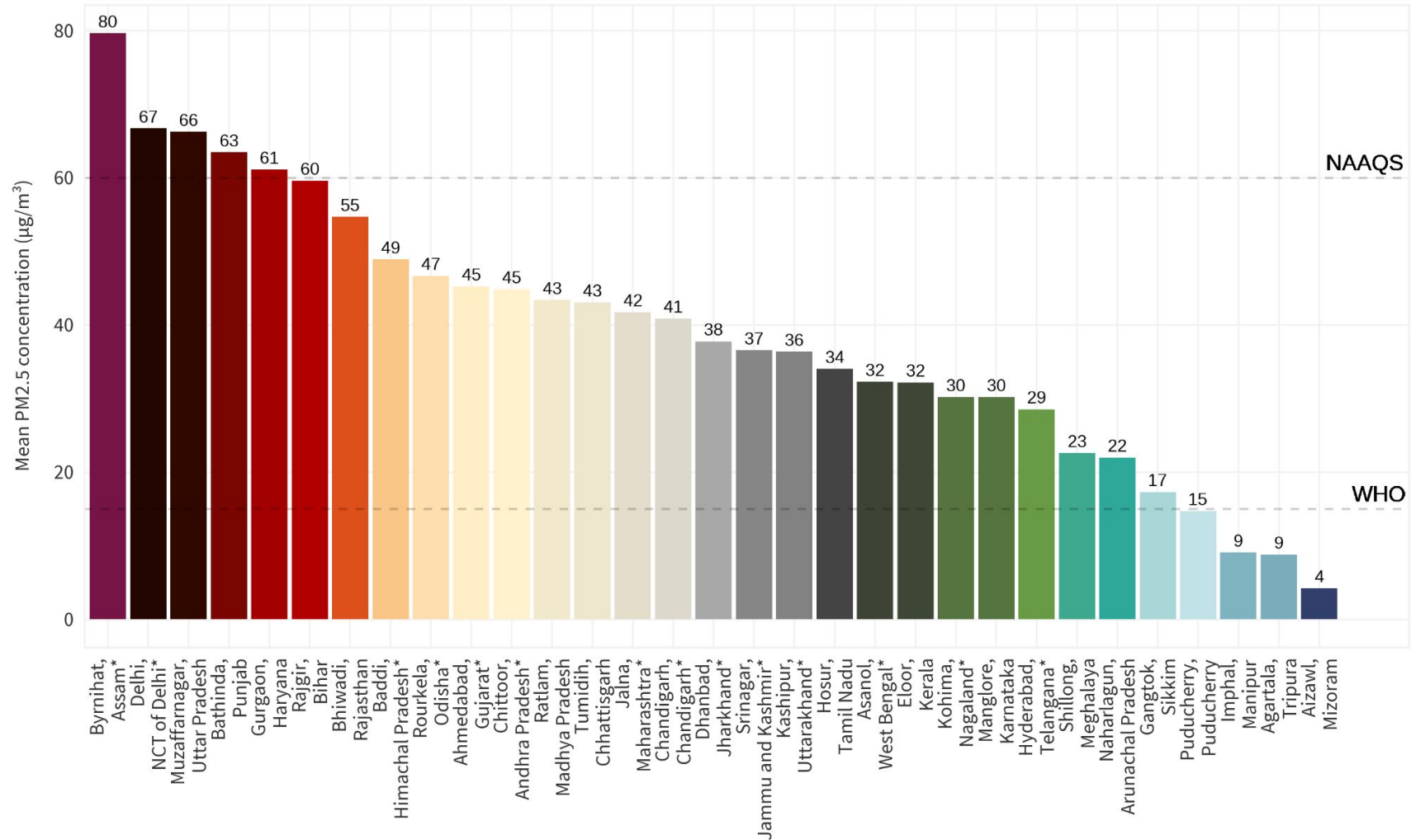


Frequency of appearance of respective cities in top 10 most polluted cities in India list by PM_{2.5} concentration – May 2025



State-wise most polluted cities (PM_{2.5}, µg/m³) in India – May 2025

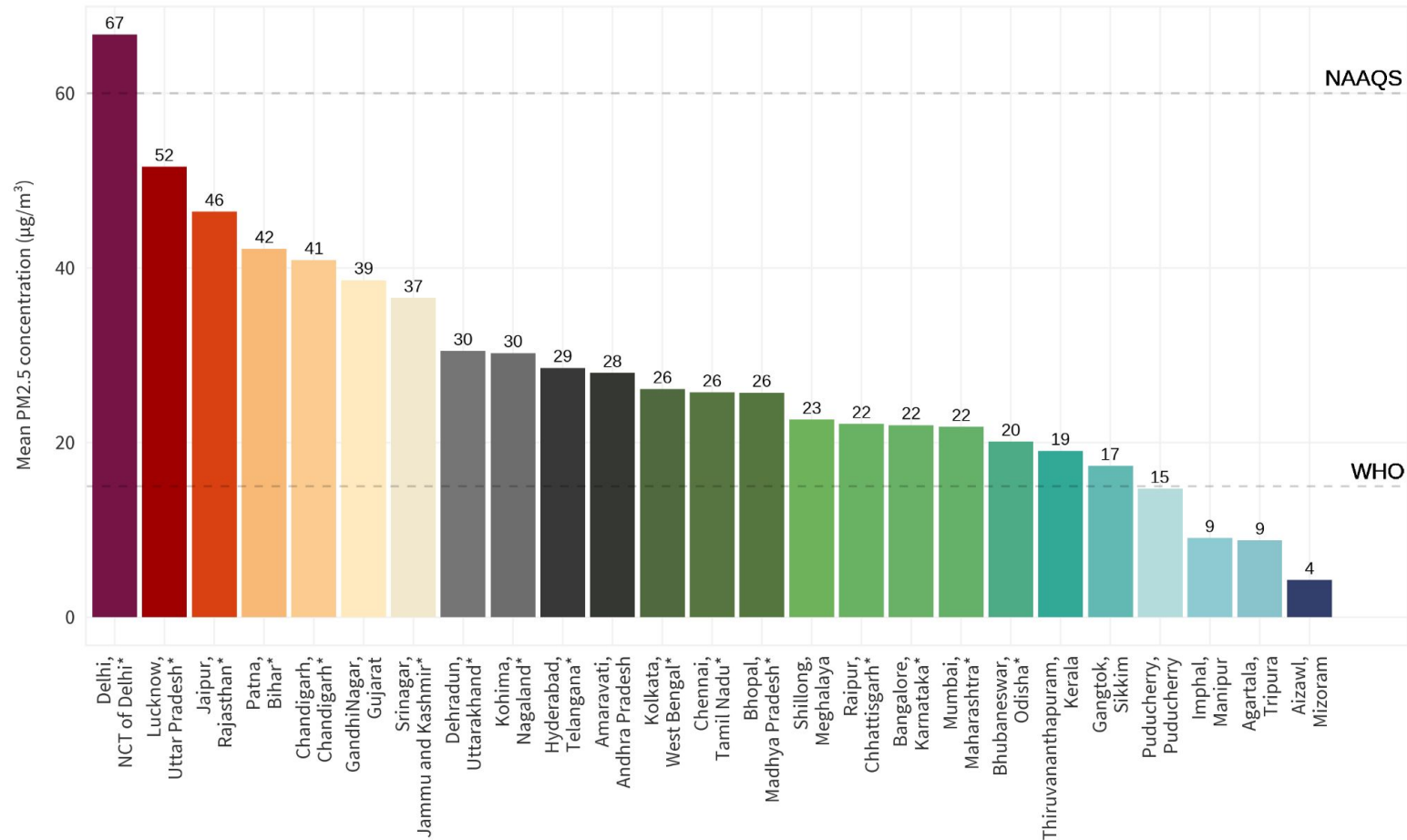
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PM_{2.5} concentrations across state capital cities in India – May 2025

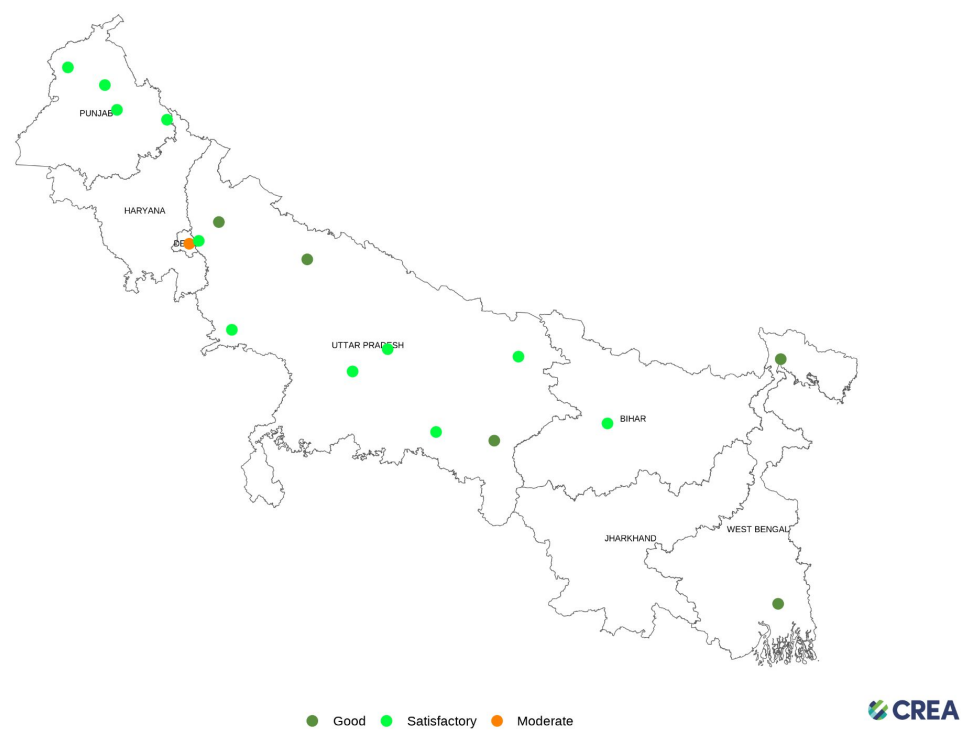
PM_{2.5} concentrations across state/provincial capital cities in India - May 2025

* indicates NCAP cities

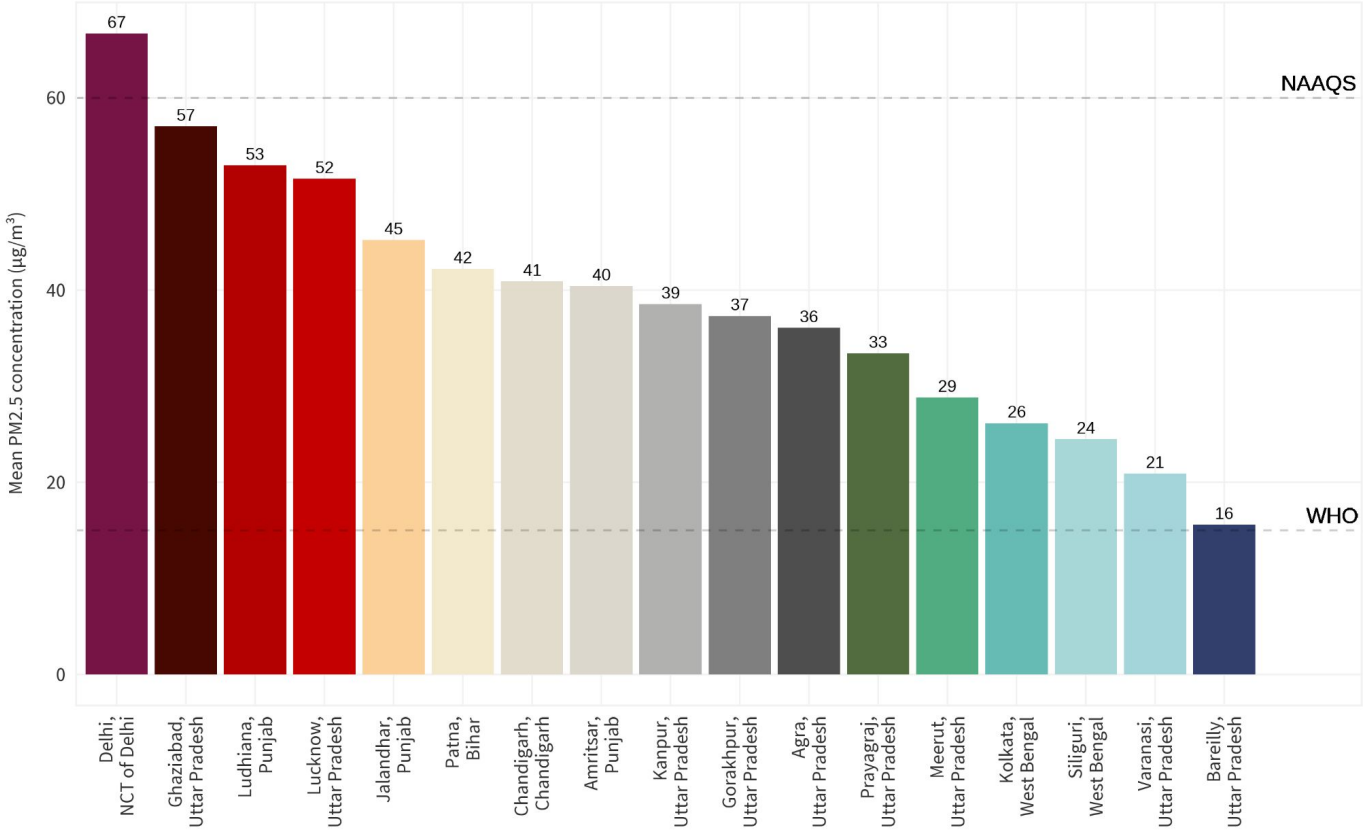


Itanagar (Arunachal Pradesh); Dispur (Assam); Panaji (Goa); Shimla (Himachal Pradesh); Ranchi (Jharkhand); Port Blair (Andaman and Nicobar Islands); Daman (Dadra and Nagar Haveli and Daman & Diu); Leh (Ladakh); and Kavaratti (Lakshadweep) don't have an operational CAAQMS.

PM_{2.5} concentrations across million plus cities in Indo-Gangetic Plain in India (with CAAQMS) – May 2025



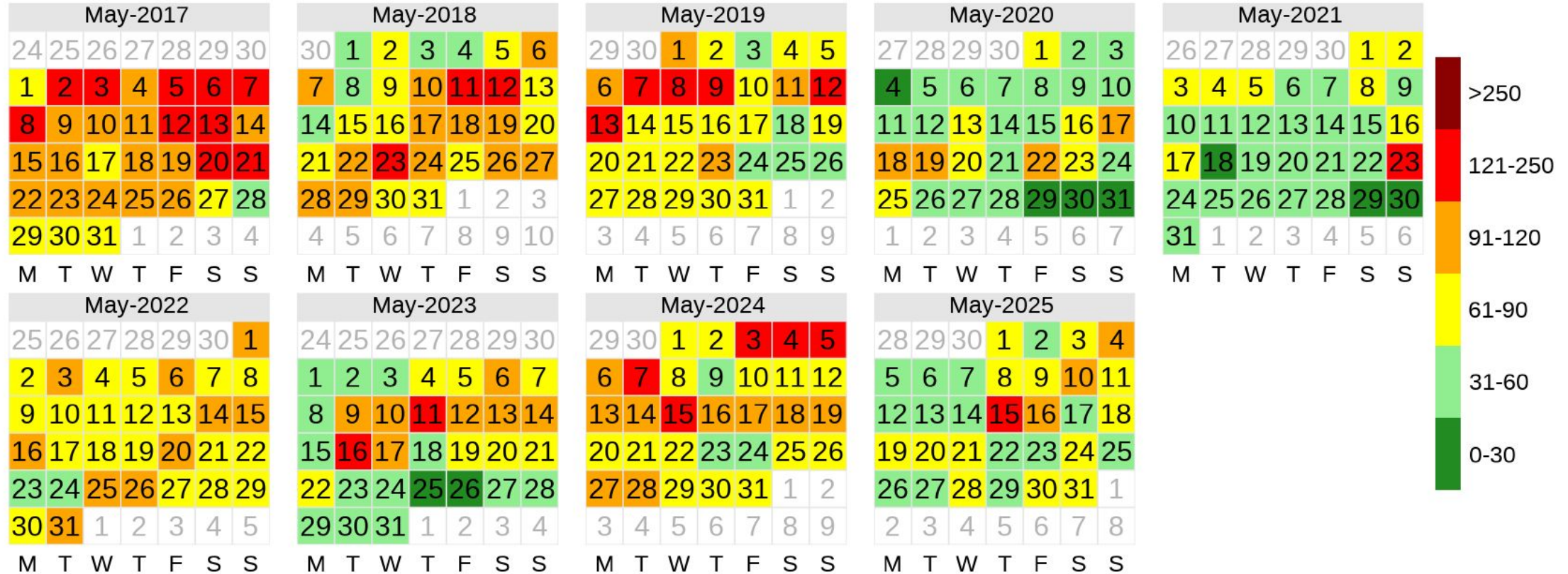
PM_{2.5} concentrations across million plus cities in Indo-Gangetic Plain in India (with CAAQMS) - May 2025



Ambient air quality status in Delhi – May 2025

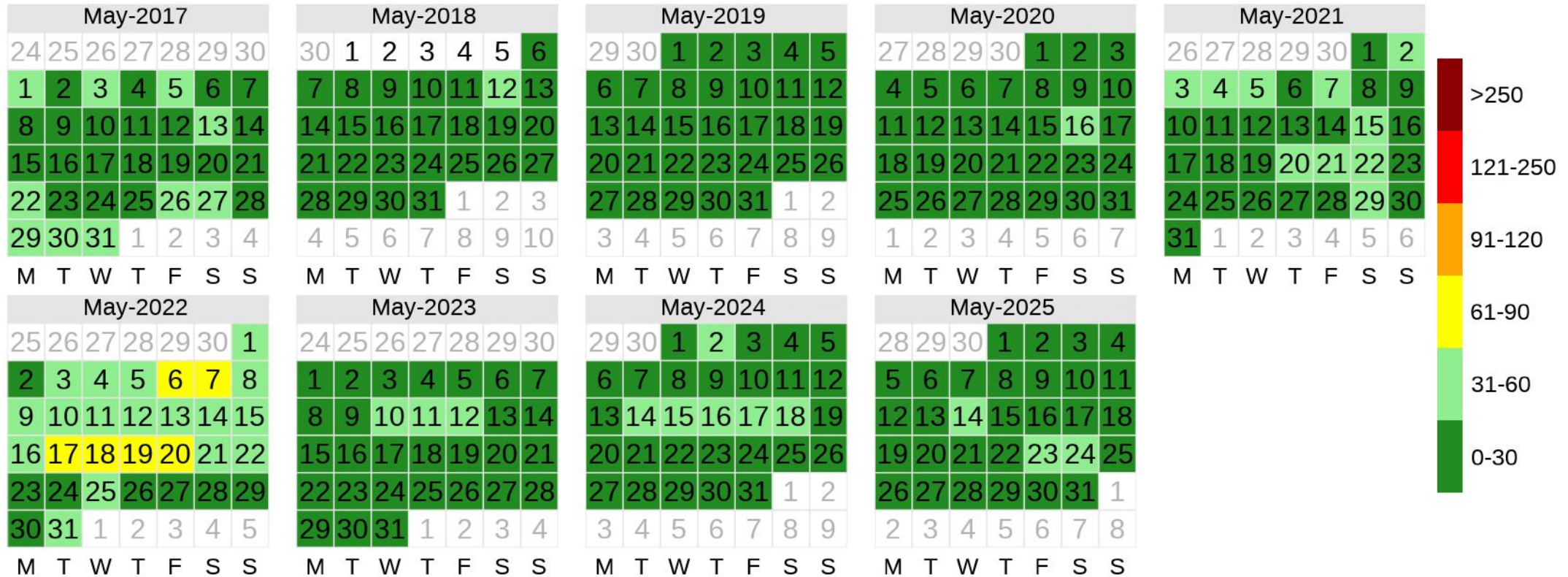
(PM_{2.5} concentration, µg/m³)

Delhi Daily PM_{2.5} Concentration (µg m⁻³)



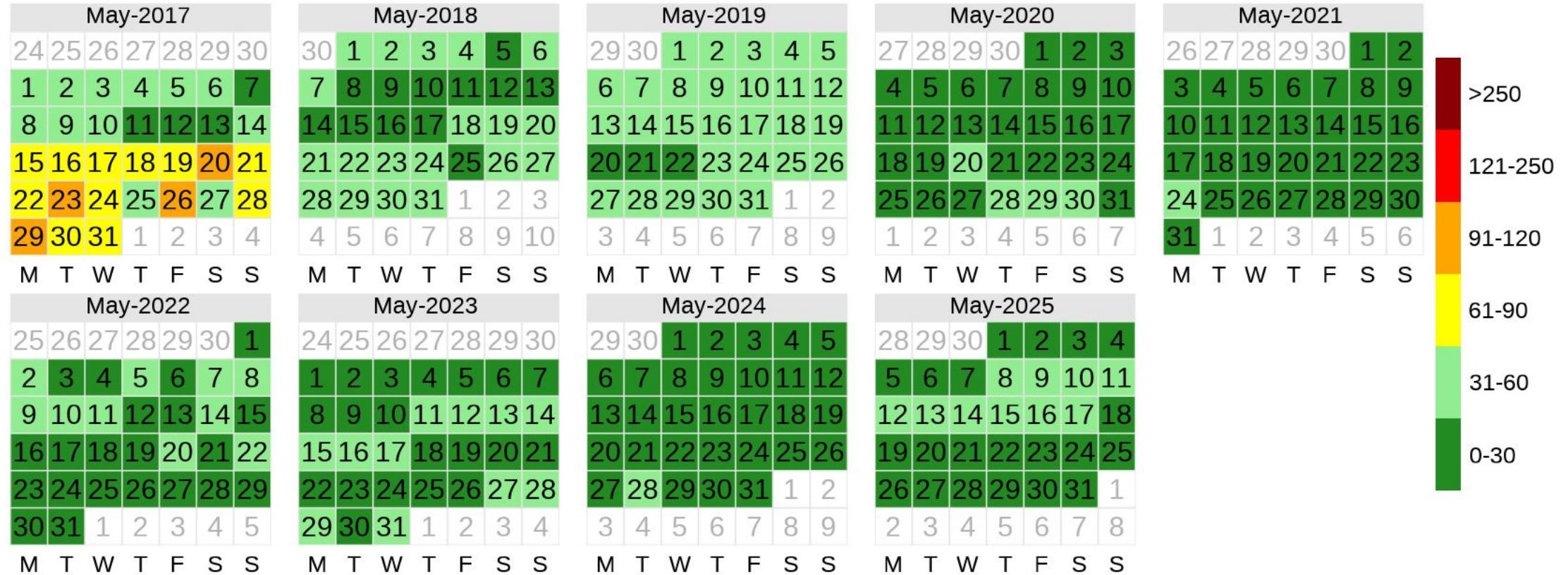
Ambient air quality status in Mumbai – May 2025 (PM_{2.5} concentration, µg/m³)

Mumbai Daily PM_{2.5} Concentration (µg m⁻³)



Ambient air quality status in Chennai – May 2025 (PM_{2.5} concentration, µg/m³)

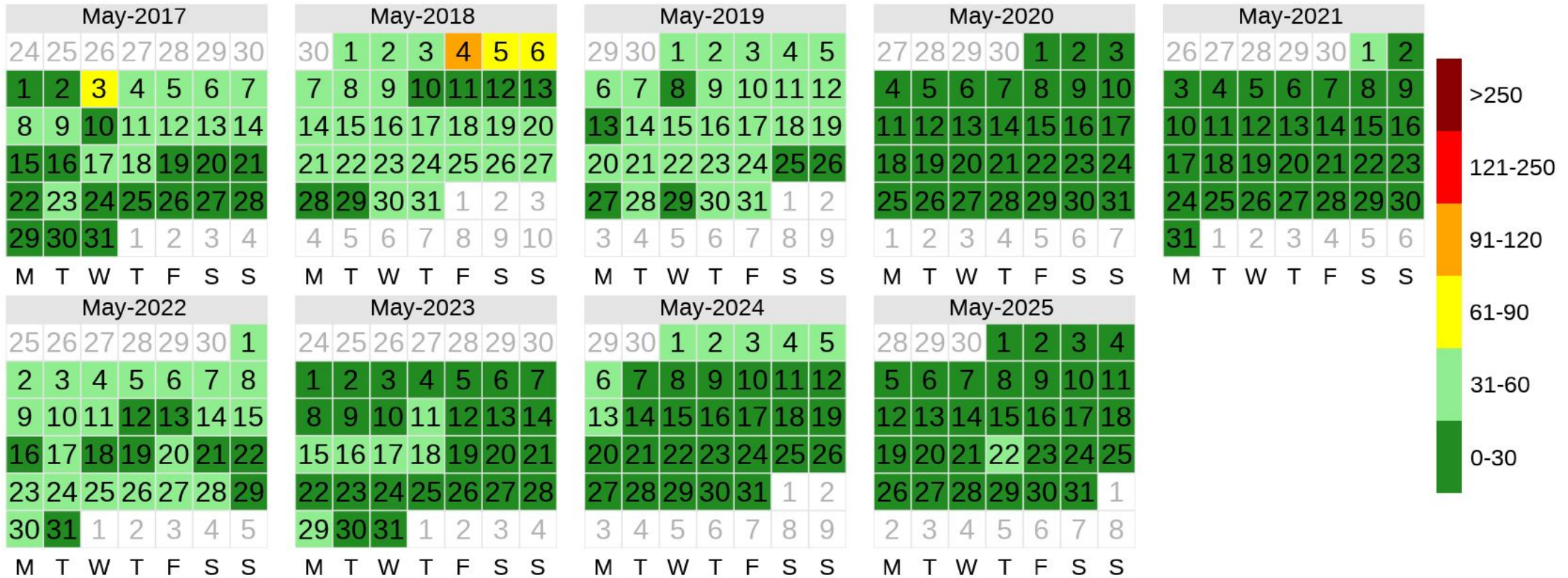
Chennai Daily PM_{2.5} Concentration (µg m⁻³)



Ambient air quality status in Bangalore – May 2025

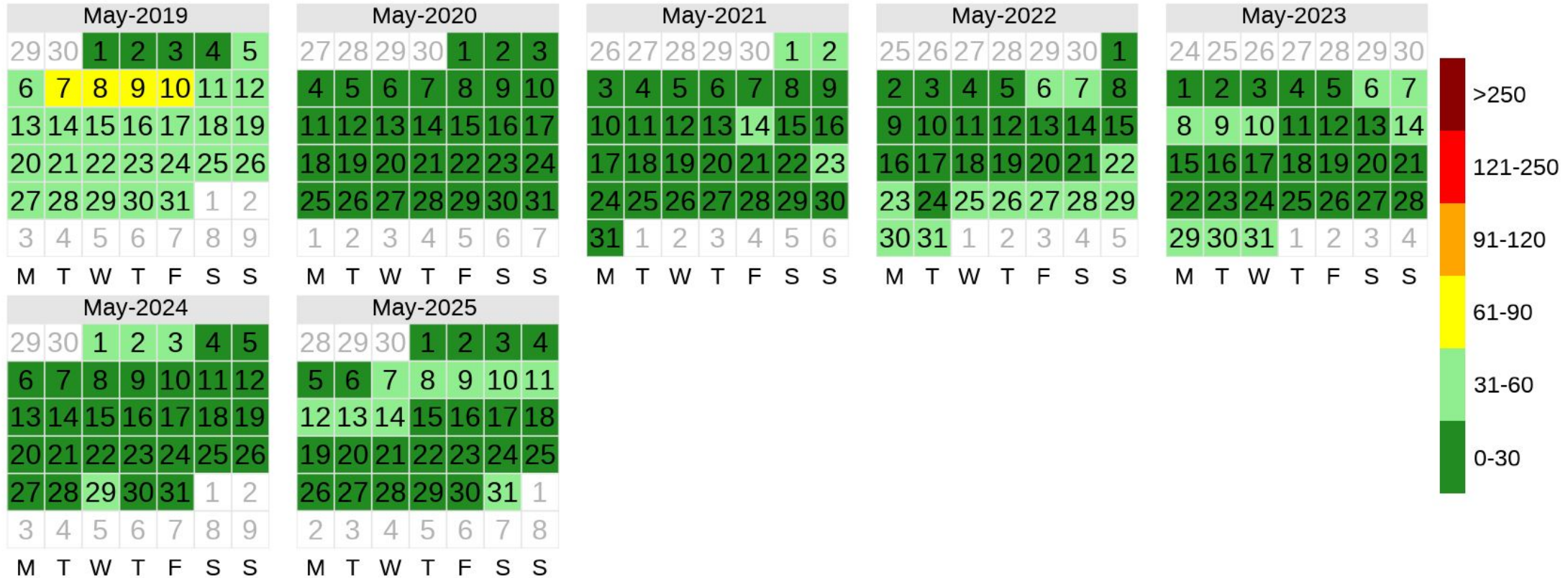
(PM_{2.5} concentration, µg/m³)

Bangalore Daily PM_{2.5} Concentration (µg m⁻³)



Ambient air quality status in Kolkata – May 2025 (PM_{2.5} concentration, µg/m³)

Kolkata Daily PM_{2.5} Concentration (µg m⁻³)



Data sources

Ambient air quality data recorded by Continuous Ambient Air Quality Monitoring Stations (CAAQMS) is downloaded from the '[Central Control Room for Air Quality Management - All India](#)' dashboard operated by the Central Pollution Control Board (CPCB).

Resources

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