



AIR QUALITY BULLETIN

FACTSHEET 2017



Highlights

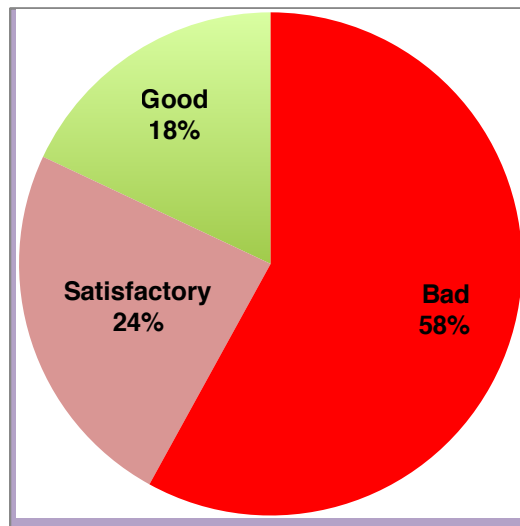
1. **985 $\mu\text{g}/\text{m}^3$** is the maximum concentration of particulate matter ($\text{PM}_{2.5}$) observed in Muzaffarpur on **February 28, 2017**; followed by 529 $\mu\text{g}/\text{m}^3$ on April 19, 2017.
2. It was observed that a vast majority of days (58%) in Muzaffarpur had bad air quality.
3. In bad air quality days, 43% were at relatively high levels of pollution and the quality of air remained under '**Poor to Severe**' category.
4. Among the rest of the total monitored days, 18% and 24% were noted under '**Good**' and '**Satisfactory**' categories, respectively.
5. Monthly mean concentration of particulate matter ($\text{PM}_{2.5}$) was recorded to be the **highest in the month of February** (225 $\mu\text{g}/\text{m}^3$), followed by January (223 $\mu\text{g}/\text{m}^3$) and December (217 $\mu\text{g}/\text{m}^3$), 2017.
6. The annual average concentration of $\text{PM}_{2.5}$ in Muzaffarpur was **114.2 $\mu\text{g}/\text{m}^3$** , which was 3 times more than the national standard.
7. As an immediate response to the state of the ambient air quality in Muzaffarpur, the Bihar Government must formulate a Clean Air Action Plan with each action plan in a time bound manner.
8. The government must inform residents about the air quality and must also issue health advisory for the citizens.

I. Good day versus bad days in Muzaffarpur

The number of days with varied Air Quality Index values vis a vis their month is elaborated in the graph. The colour-coding of the bar graph is in accordance with CPCB's AQI category. It was observed that a vast majority of days (58%) in Muzaffarpur had bad air quality.

In bad air quality days, 43% were at relatively high levels of pollution and the quality of air remained under '**Poor to Severe**' category

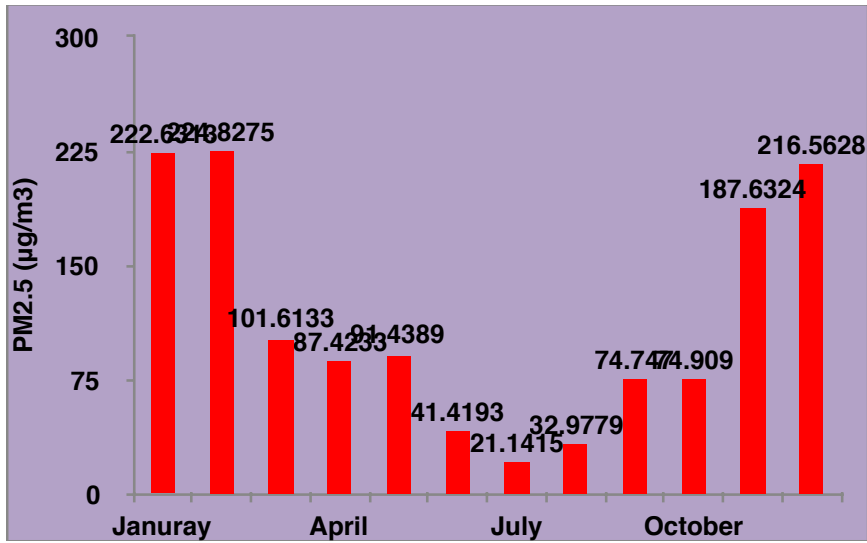
Overall, 18% of the total monitored days were found under '**Good**' category, while the rest 24% were under '**Satisfactory**' category.



Graph 1: Air Quality in year 2017

II. Most Polluted month

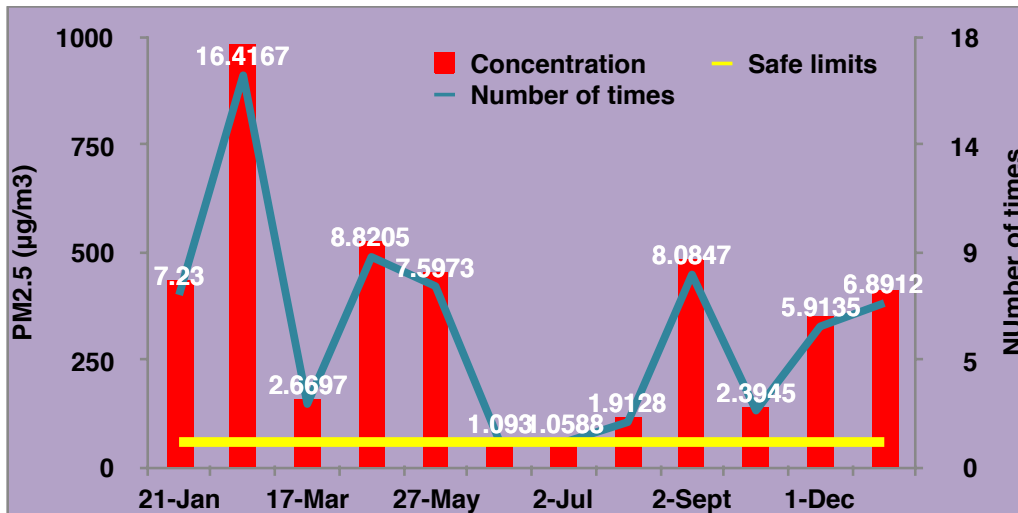
The particulate matter along with other important pollutants were perpetually monitored with the Continuous Air Quality Monitoring device installed at the Muzaffarpur Collectorate in Muzaffarpur. These pollutants were monitored for 341 days. All round the year, the monthly mean concentration of PM_{2.5} was observed to be the highest for **February**. The average concentration was calculated as 225 µg/m³; while in the month of December and January, the monthly mean concentrations were 217 µg/m³ and 223 µg/m³ respectively. July and August have been the least polluted months, with the monthly mean concentration at 21 µg/m³ and 33 µg/m³ respectively.



Graph 2: Monthly mean concentration of Particulate matter (PM_{2.5}) in 2017

III. The worst days of every month

The maximum concentration of PM_{2.5} across the year was noted on 28th February 2017, the value recorded was 985 µg/m³.



Graph 3: Worst days of every Month

The worst recorded day in each month is indicated in the table below:

Month	Concentration	Number of times
20-Jan	434	7
28-Feb	985	16
16-Mar	160	3
19-Apr	529	9
26-May	456	8
14-Jun	66	1
1-Jul	64	1
31-Aug	115	2
1-Sep	485	8
28-Oct	144	2
30-Nov	355	6
1-Dec	413	7

Table: The Worst days of Every Month

V. Comparison of the air quality of last two years

In the last year, there is no major improvement in the air quality of Muzaffarpur. However the air quality of the year 2017 is slightly better than that of the year 2016. The annual average concentration of PM_{2.5} in Muzaffarpur was slightly better at 114.1 µg/m³, compared to the previous year (2016), when it was 119.9 µg/m³. However, it was still 3 times more than the national standard.

About CEED

Centre for Environment and Energy development (CEED) is a solution-driven non-profit organisation that works towards creating inspiring solutions to maintain a healthy, rich and diverse environment. CEED is dedicated to finding solutions for climate and energy, hazardous free future and for clean and safe water.

The idea of CEED was conceived by a group of young professionals with vast amount of experience in the field of environment. CEED was registered in November 2012 as non profit organisation under section 25, Companies Act, 1956.

Contact:

A1-248,Second floor Safdarjung Enclave, New-Delhi - 110029, India

B/194,Second floor Shri Krishna Puri, Patna - 800001, India

Flat no. 09, G&H, Sail City, Sector 2, Dhurwa, Ranchi - 834004, India

Visit:

www.ceedindia.org

www.facebook.com/ceedindia.org

www.twitter.com/ceed_india.org

Write to us at

info@ceedindia.org