Assessment of Ambient Air Quality of Lucknow City During Pre-Diwali, Diwali and Post-Diwali Festival

November 2026







सीएसआईआर- भारतीय विषविज्ञान अनुसंधान संस्थान

CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH

विषविज्ञान भवन, 31, महात्मा गाँधी मार्ग , लखनऊ , उ.प्र., भारत, 226001

VISHVIGYAN BHAWAN, 31, MAHATMA GANDHI MARG, LUCKNOW, 226001 U.P., INDIA

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Executive Summary

The institute conducted the Diwali Survey–2026 to monitor ambient air quality and noise levels at four representative locations in Lucknow city, including two residential sites (Aliganj and Vikas Nagar) and two commercial sites (Aminabad and Chowk). The monitoring parameters included were particulate matter (PM_{10}, $PM_{2.5}$), gaseous pollutants (SO_2 and NO_2), and ambient noise levels during the pre-Diwali, on-Diwali and post-Diwali periods, covering both daytime and nighttime hours. Results indicated a substantial deterioration in air quality during Diwali festival as both PM10 and PM2.5 concentrations significantly exceeded the National Ambient Air Quality Standards (NAAQS) limits of 100 µg/m³ and 60 µg/m³, respectively. On Diwali night, extremely high particulate matter concentrations were recorded at all monitoring sites. PM_{10} concentration peaked at Aliganj (912 µg/m³), followed by Chowk (751 µg/m³), Aminabad (642 µg/m³), and Vikas Nagar (599 µg/m³), representing overall increases ranging from 57.4-170.6% compared to pre-Diwali night. Similarly, $PM_{2.5}$ concentration reached a maximum of 558 µg/m³ at Aliganj, reflecting a 228% increase over the corresponding pre-Diwali night concentration of value of 170 µg/m³. Gaseous pollutants exhibited contrasting trends during the Diwali period. SO_2 concentrations remained within the NAAQS limit of 80 µg/m³, whereas NO_2 levels exceeded the prescribed standard at all monitoring locations except Aminabad. Noise levels also exceeded the CPCB permissible limits at all sites. The highest average value was recorded at Vikas Nagar [90.3 dB(A)] and the lowest at Chowk [85.2 dB(A)]. The ten-year trend analysis (2017-2026) revealed considerable interannual fluctuations in PM_{10} and $PM_{2.5}$ concentrations during Diwali night. Both particulate matters exhibited declined trend from 2018 to 2022 followed by an overall increase in subsequent years. PM_{10} concentration continue to rise, reaching to 726.2 µg/m³ in 2026. Compared with 2025, the PM_{10} and $PM_{2.5}$ concentration increased by 28.5% and 13.5%, respectively, during Diwali 2026. Although, mitigation measures (certified green crackers, designated bursting zones, restricted timings, public awareness campaigns, and post-festival clean-up) put in place, it calls into question their effectiveness. Hence, it is recommended that an effective real-time monitoring of implementation of these measures is the need of the hour.

1.1 Introduction

Diwali is one of the most widely celebrated festivals in India. Diwali is celebrated across the country, where every corner is illuminated with colorful lights and bursts of thousands of tons of firecrackers in celebration to symbolize the triumph of light over darkness and good over evil. People celebrate with great enthusiasm by cleaning and decorating their home with lighting, wearing new clothes, performing traditional puja, exchanging sweets, sharing heartfelt greetings and extending good wishes to family and friends. The festival fosters joy, togetherness, and positivity, spreading harmony and cultural unity across communities.

During the Diwali festival evening, houses across the country sparkled with millions of colourful lights and other decorative items, creating a vibrant festive atmosphere. The celebration of Diwali lasts for five days, beginning with Dhanteras and concluding with Bhai Dooj, holding its own traditional and mythological significance. The festivities are often marked by widespread use of firecrackers, increased vehicular movement and heightened commercial activities, leading to crowded markets and higher public movement, which release substantial quantities of pollutants into the atmosphere. Therefore, exposure to air pollutants emitted from firecrackers and other associated sources during this period can affect public health, affecting the various bodily systems, particularly those of respiratory and cardiovascular patients.

The bursting of fireworks in cold or semi-cold weather conditions results in a sudden surge of huge concentration of various lethal toxic particles (coated with harmful metal oxides) and gases. Fireworks often contain heavy metals like lead, cadmium, and copper. These metals can have harmful health effects when inhaled or ingested, and they can persist in the environment, affecting soil and water quality. The intense and continuous bursting of firecrackers consumes oxygen and can cause short-term, sudden drops in oxygen levels in the immediate breathing zone. Exposure to such conditions can exacerbate asthma, bronchitis, respiratory and cardiovascular diseases patient, leading to an increase in hospital emergency visits, particularly among individuals with pre-existing respiratory conditions.

Many accidents and injuries, especially among children, occur due to fire and firecrackers. In recent years, sparks from firecrackers have increasingly been reported as ignition sources for accidental fires in residential buildings, commercial establishments, warehouses, and vehicles. In addition, burning firecrackers releases gases like sulfur dioxide and nitrogen dioxide, which can irritate the respiratory system. Although green crackers have been introduced as a less-polluting alternative to conventional firecrackers, their effectiveness remains a matter of concern due lack of stringent monitoring mechanisms to ensure the authenticity of green crackers. Therefore, illegal or non-compliant firecrackers are being sale under the guise of green crackers, raises serious concern regarding their actual environmental benefits. Overall, the combined effect of these pollutants during Diwali significantly worsens air quality, posing serious health risks, particularly for individuals with pre-existing respiratory conditions.

Despite the efforts to promote eco-friendly alternatives to mitigate the adverse effects on air quality, ambient air pollution levels during the Diwali period have increased suddenly more than the regular days, which signify the influence of Diwali fireworks combustion on the atmospheric environment. Besides, the festival of Diwali also marks the beginning of the winter season with decreased atmosphere mixing height, cold weather (low temperature and high humidity), and calm wind (low wind speed < 0.5 m/s) conditions. Under these conditions, emissions from fireworks and other anthropogenic activities induced air emissions do not disperse easily and the pollutants accumulate near the ground level/ breathing zone.

In densely populated urban areas like Lucknow, with a population of approximately 41 lakhs, air quality is already under significant stress and compromised due to a variety of ongoing activities such as transportation, industrial, construction (pavement, sewer line, buildings, road flyovers, etc.), waste burning, and cooking fuel combustion. These activities contribute to the deterioration of air quality, causing both temporal and spatial variations. Diwali episodic activities on the baseline pollution levels causes a sudden surge in atmospheric pollutants, leading to a sharp deterioration of air quality across the region. Promoting public awareness about air pollution during Diwali and encouraging eco-friendly celebrations can help reduce pollutant levels and mitigate associated health risks. Therefore, the air quality survey in Lucknow city during Diwali days (i.e., pre-

Diwali days, on-Diwali day, and post-Diwali days) has been carried out by CSIR-Indian Institute of Toxicology Research (CSIR-IITR) for more than two decades to present air and noise pollution impact due to the Diwali festival at different locations of the city. The study delineates the additional load added to the atmospheric air pollution due to the firecrackers bursting and other festival activities in Lucknow city.

1.2 Aim & Objectives

- To assess the ambient concentrations of particulate matter (PM_{10} & $PM_{2.5}$), gaseous (SO_2 & NO_2) pollutants and noise levels for day and night-time at different locations in Lucknow city.
- To examine the status and trend of air quality over the years in Lucknow, and develop a comparative air quality database for the Diwali period
- To increase public awareness about the spike in air and noise pollution during Diwali due to the bursting of firecrackers and other festive activities in Lucknow city.

2.0 Monitoring Locations and Methodology:

Residential and commercial sites were selected for monitoring air and noise pollution during the Diwali festival because these areas experience the highest intensity of human activity, firecracker use, and vehicular movement. Monitoring was carried out at four locations in Lucknow, two residential and two commercial (Table 1 and Figure 1)—to assess particulate matter (PM_{10} and $PM_{2.5}$), gaseous pollutants (SO_2 and NO_2), and noise levels.

The air quality monitoring is conducted during day-time (i.e., 6:00 am to 6:00 pm) and night-time (i.e., 6:00 pm to 6:00 am) for the pre-Diwali day (i.e., November 07, 2026), on Diwali day (November 08, 2026), and post-Diwali day (i.e., November 09, 2026) at all the four selected sites in Lucknow.

Table 1: Monitoring Locations

S .No.	Locations	Activities
1	Aliganj	Residential
2	Vikas Nagar	Residential
3	Aminabad	Commercial cum traffic
4	Chowk	Commercial cum traffic

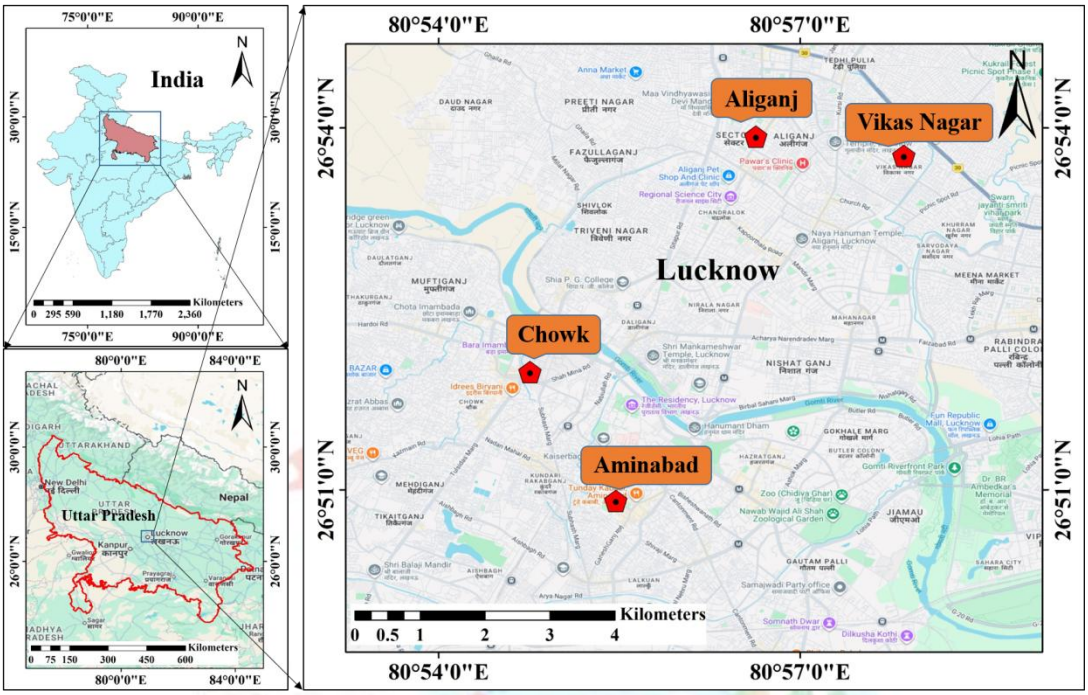


Figure 1: Locations of ambient air and noise pollution monitoring sites in Lucknow city

3.0 Results and Discussion:

The results of the air pollution analysis of four monitoring sites are presented in Table 2, Figure 2 with trend analysis in Figure 3, and Figure 4. The study revealed that the reparable particulate matter monitored during pre-Diwali, on Diwali, and post-Diwali days is above the National Ambient Air Quality Standards of 60 and 100 µg/m^3 for $PM_{2.5}$ and PM_{10}, respectively (Table 2), indicating significant deterioration in ambient air quality during the festive period.

PM_{10} Concentration during Pre-Diwali, on-Diwali, Post-Diwali:

Pre-Diwali (November 07, 2026), the 12 hr mean concentration of PM_{10} ranged from 159 to 232 µg/m^3, with an average value of 190.3 µg/m^3 during the day-time, and from 303 to 408 µg/m^3, with an average value of 348.4 µg/m^3 during the night-time.

On Diwali (November 08, 2026), the 12 hr mean concentration of PM_{10} ranged from 198 to 256 µg /m^3 with an average value of 271.1 µg/m^3 during the day-time, and from 599 to 912 µg/m^3 with an average value of 726.2 µg/m^3 during night-time.

Post-Diwali (November 09, 2026), the 12 hr average PM_{10} concentration ranged from 175 to 212 µg/m3 during day-time, with an average value of 189.3 µg/m3, while night-time concentration ranged from 245 to 373 µg/m3 with an average value of 300.1 µg/m3.

$PM_{2.5}$ Concentration during Pre-Diwali, on-Diwali, Post-Diwali:

Pre-Diwali (November 07, 2026), the 12 hr mean concentration of $PM_{2.5}$ ranged from 80.0 to 106.0 µg/m^3 with an average value of 93.1 µg/m^3 during day-time, and from 137 to 182 µg/m^3 with an average of 159.6 µg/m^3 during night-time.

On Diwali (November 08, 2026), the 12 hr mean concentration of $PM_{2.5}$ ranged from 107 to 143 µg/m^3 with an average value of 126.6 µg/m^3 during day-time, and from 292.0 to 558.0 µg/m^3 with an average value of 400.1 µg/m^3 during night-time.

Post-Diwali (November 09, 2026), the 12 hr mean of $PM_{2.5}$ concentration ranged from 93 to 149 µg/m^3 during day-time, with an average value of 102.8 µg/m^3, while night-time $PM_{2.5}$ concentration ranged from 150 to 219 µg/m^3 with an average value of 179.3 µg/m^3.

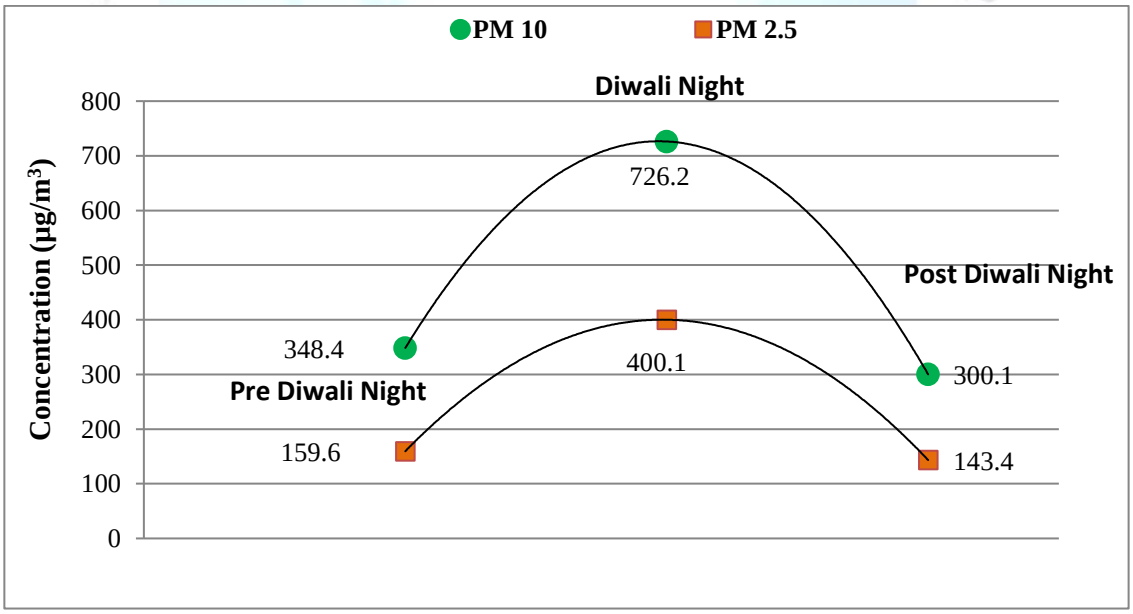


Figure 2: Profile of respirable particulates (in µg/m^3) in ambient air during the night-time of Diwali Festival.

On Diwali night, the average PM_{10} concentration increased sharply to 726.2 µg/m³**,** representing a 2.1-fold (108.4%) rise over the pre-Diwali night value of 348.4 µg/m³, and then declined to 300.1 µg/m³ on the post-Diwali night (Fig. 2). Similarly, the average $PM_{2.5}$ concentration peaked at 400.1 µg/m³ on pre-Diwali night, making a 2.5-fold (150.7%) increase compared to pre-Diwali night value of 159.6 µg/m³, followed by a decline to 143.4 µg/m³ on the post-Diwali night (Fig. 2). This substantial post-Diwali recovery in ambient air quality may be attributed to reduced festive activities and enhanced atmospheric dispersion and dilution.

In case of gaseous pollutants, the average concentration of SO_2 was found to be within prescribed limits. However, a substantial increase was observed on Diwali night, with concentration reaching 54.0 µg/m³, representing a 112.6% increase compared with the pre-Diwali night (25.4 µg/m³). In contrast, the average NO_2 concentration was exceeded the prescribed limits. On-Diwali night, NO_2 concentration was increased sharply to 113.8 µg/m^3 from 48.2 µg/m^3 during the the pre-Diwali night, corresponding to a 136.1% increase.

Table 2. Results of particulate matter and gaseous pollutants monitored during the Diwali festival 2026

Location	Pre Diwali (November 07, 2026)		On-Diwali (November 08, 2026)		Post-Diwali (November 09, 2026)	
	Day (6:00 am - 6:00 pm)	Night (6:00 pm to 6:00 am)	Day (6:00 am to 6:00 pm)	Night (6:00 pm to 6:00 am)	Day (6:00 am to 6:00 pm)	Night (6:00 pm to 6:00 am)
PM_{10} concentration (µg/m^3)						
Aliganj	179	337	198	912	175	287
Vikas Nagar	159	303	219	599	187	296
Aminabad	191	408	356	642	212	373
Chowk	232	346	311	751	183	245
Average	190.3	348.4	271.1	726.2	189.3	300.1
SD	31.0	43.7	75.3	139.6	16.0	53.6
$PM_{2.5}$ concentration (µg/m^3)						
Aliganj	96	170	143	558	149	162
Vikas Nagar	80	137	107	292	93	122
Aminabad	106	182	140	435	113	156
Chowk	91	149	117	316	105	133
Average	93.1	159.6	126.6	400.1	115.0	143.4
SD	10.8	20.4	17.5	122.6	23.8	18.9
Sulphur Dioxide concentration (µg/m^3)						
Aliganj	18	21	26	68	34	30
Vikas Nagar	16	20	33	53	28	23
Aminabad	29	34	27	39	25	21
Chowk	13	27	24	55	28	32
Average	19.0	25.4	27.6	54.0	28.8	26.5
SD	6.7	6.2	4.0	12.0	3.8	5.3
Nitrogen Dioxide concentration (µg/m^3)						
Aliganj	32	42	36	138	58	64
Vikas Nagar	36	41	48	136	52	36
Aminabad	43	61	51	73	42	49
Chowk	38	48	44	108	46	55
Average	37.3	48.2	44.5	113.8	49.5	51.0
SD	4.6	9.4	6.3	30.6	7.0	11.7

SD= Standard Deviation

NAAQS: PM_{10} (100 µg/m^3), $PM_{2.5}$ (60 µg/m^3), SO_2 & NO_2 (80µg/m^3)

Noise level

The noise levels were measured at 4 locations during Pre-Diwali, On-Diwali and Post-Diwali nights to assess the impact of firecracker bursting, and the results are presented in Table 3**.**

The noise levels were monitored during day-time between 10:00 am to 02:00 pm and night-time between 08:00 pm to 12:00 midnight for ~20 minutes at each location.

Table 3. Measured Noise Level (dB(A)) for Pre-Diwali, On-Diwali and Post-Diwali (day-time & night-time)

Locations	Pre-Diwali		On-Diwali		Post- Diwali	
	Day	Night	Day	Night	Day	Night
Aliganj	64.4	65.2	64.8	85.3	60.5	73.0
Vikas Nagar	71.0	73.1	71.3	90.3	70.8	78.7
Chowk	77.4	79.1	78.9	85.2	73.9	77.0
Aminabad	82.0	76.0	77.0	86.5	76.9	78.9
Average	73.7	73.4	73.0	86.8	70.5	76.9
SD	7.7	6.0	6.3	2.4	7.1	2.7

The highest noise level on Diwali night was recorded at Vikas Nagar (90.3 dB(A)), while the lowest was observed at Chowk (85.2 dB(A)), reflecting a trend similar to that observed in the previous year (2025).

Firecrackers with noise level >80 dB(A) may damage the eardrum and reduce our hearing ability. High noise can induce temporary or permanent hearing impairment.

Crackers may also trigger problems like annoyance, irritation, hypertension, stress, hearing loss, headache, sleep disturbance, and respiratory problems such as allergic bronchitis, bronchial asthma, sinusitis, rhinitis, and laryngitis.

Trend of PM_{10} and $PM_{2.5}$ concentration over the last 10 years

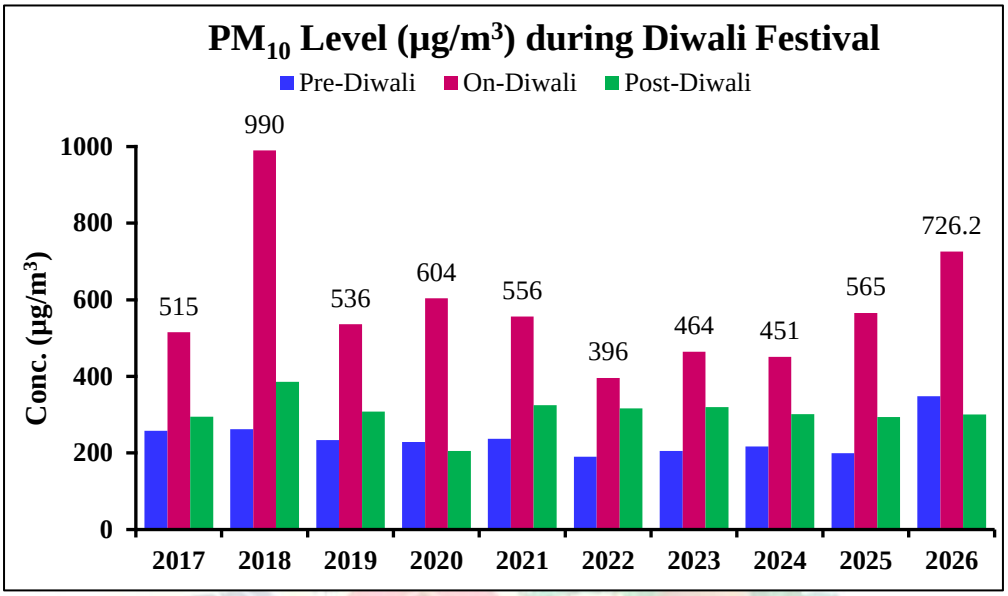
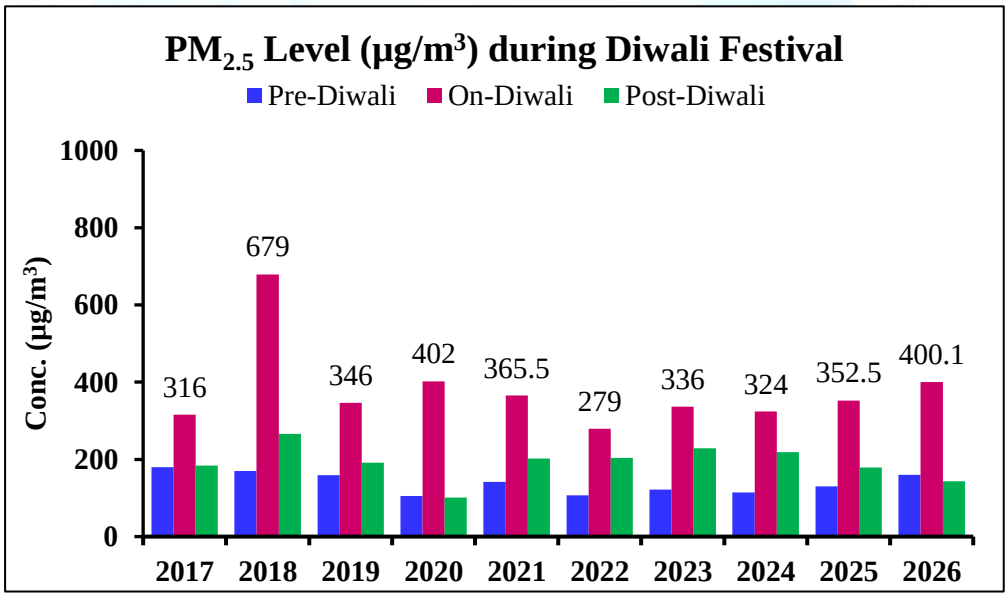


Figure 3: Trend in mean PM_{10} concentrations during Diwali night from 2017 to 2026.



Figuge 4: Trend in mean $PM_{2.5}$ concentrations during Diwali night from 2017 to 2026.

The trend analysis of PM_{10}, shown in Figure 3, reveals considerable interannual fluctuations during Diwali nights. The highest concentration was recorded in 2018 (990 µg/m³), followed by a declining trend until 2022 (396 µg/m³). Thereafter, PM_{10} concentration exhibited an increasing trend, reaching to 726.2 µg/m³ in 2026. Compared with 2025, the PM_{10} concentration during Diwali 2026 increased by 28.5%. A similar trend was observed for $PM_{2.5,}$ as evident in Figure 4., which increases by 13.5% in 2026 compared with the corresponding period in 2025, indicating a resurgence in particulate matter pollution during the current monitoring period.

4.0 Conclusion:

During the Diwali festival, PM_{10} and $PM_{2.5}$ levels exceeded NAAQS 2009 limits of 100 and 60 µg/m^3. Gaseous pollutants exhibited contrasting trends during Diwali, with SO_2 concentrations remaining within the NAAQS limit of 80 µg/m³, whereas NO_2 concentration exceeded the prescribed standard at all monitoring locations except Aminabad. Similarly, both day-time and Night-time noise levels exceeded their respective CPCB standards of residential area (day time: 55 and night time: 45 dB(A)) and commercial area (day time: 65 and night time: 55 dB(A)).

The observed levels are also influenced by human activities and meteorological conditions. During the Diwali air quality campaign high levels of activities, particularly traffic and crowded markets have been observed till late at night, in addition to the cracker burning resulting in more emissions of air pollutants. During Diwali festive period (6-9 November, 2026), the onset of winter was accompanied by decline in atmospheric temperature (18-20°C), while low wind speed also makes favorable conditions for higher air pollution.

On-Diwali night, the average PM_{10} concentration had suddenly increased to 726.2 µg/m^{3,} i.e., increased by ~108.4 % from 348.4 µg/m^3 over the pre-Diwali night and reduced to 300.1 µg/m^3 during the post-Diwali night. Similarly, the average $PM_{2.5}$ concentration had increased to 400.1 µg/m^3 on-Diwali night, corresponding to a 150.6 % increase over the pre-Diwali level (159.6 µg/m³), followed by a decline to 143.4 µg/m³ during the post-Diwali period. Regarding noise pollution, the highest and lowest night-time noise levels on Diwali night were recorded at Vikas Nagar and Chowk, respectively. Furthermore,

night-time noise levels exceeded the prescribed CPCB night-time Standards at all locations.

The large quantity of pollutants formed due to the burning of firecrackers during the Diwali festival contributes significantly to the deterioration of ambient air quality in Lucknow city. The adoption of certified green crackers, designated firecracker-burning zones, regulated bursting timings, public awareness campaigns, and effective post-festival clean-up measures is essential to mitigating pollution and promoting environmentally responsible and sustainable Diwali celebrations.

5.0 Recommendations to Abate Air Pollution due to Diwali Fireworks

- Strategic planning of air quality and noise monitoring during the Diwali festival should carried out as per the guidelines/policy to assess air quality during Diwali festival and provide advance warning by displaying the air quality index of the city to protect public health.
- Encourage the use of certified “green crackers” over the conventional firecrackers to reduce emissions of particulate matter and gases.
- Enforce strict control on illegal manufacturing of traditional crackers and the marketing of firecrackers.
- Designate specific firecracker zones in open environment or elevated spaces away from densely populated residential houses/ areas to facilitate rapid dispersion and dilution of air pollutants.
- Restrict the use of firecrackers to a limited time period of 2 hours, from 8:00 pm to 10:00 pm to reduce prolonged exposure to air and noise pollution.
- Conduct immediate post-festival clean drive to properly collect and dispose of firecracker residues to prevent soil and water contamination
- Prohibit burning of firecracker on roads/highways and sensitive/ silence zones.
- Encourage public awareness programmes during the pre-Diwali days to ensure full festival experience without affecting the environment and public health & safety.

- People with asthma, bronchitis, or respiratory and heart diseases should avoid exposure to firecracker smoke and noise to prevent medical emergencies.
- Using air purifiers, and personal masks and avoiding outing mobility during the Diwali festival can help to protect health.
- Efforts should be made at both individual and administrative levels to prevent fire accidents caused by firecrackers.

Contributors to the Study:

The survey, sampling, data analysis, and report preparation are done by the following team of the Environmental Monitoring Laboratory, FEST Division, CSIR-IITR

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PhD Scholars: Mr. Mohd. Muzammil

Project Staff: Mr. Javed Ali, Mr. Vipin Yadav, Shashi Kant Yadav

Head, FEST Division: Dr. Ratan Singh Ray

Supplementary data sheet: complete monitoring data for particulate matter and gaseous pollutants recorded throughout the day from 6-9 November 2026 during the Diwali Festival.

Location	Pre-Diwali				On-Diwali		Post-Diwali	
	06.11.2026		07.11.2026		08.11.2026		09.11.2026	
	Day	Night	Day	Night	Day	Night	Day	Night
PM_{10} Concentration (µg/m³)								
Aliganj	161	283	179	337	198	912	175	287
Vikas Nagar	142	205	159	303	219	599	187	296
Aminabad	142	253	191	408	356	642	212	373
Chowk	175	287	232	346	311	751	183	245
Average	154.9	257.2	190.3	348.4	271.1	726.2	189.3	300.1
SD	16.1	37.8	31.0	43.7	75.3	139.6	16.0	53.6
$PM_{2.5}$ Concentration (µg/m³)								
Aliganj	78	75	96	170	143	558	149	162
Vikas Nagar	76	81	80	137	107	292	93	122
Aminabad	89	96	106	182	140	435	113	156
Chowk	79	124	91	149	117	316	105	133
Average	80.5	94.1	93.1	159.6	126.6	400.1	115.0	143.4
SD	5.7	21.6	10.8	20.4	17.5	122.6	23.8	18.9
Sulphur dioxide Concentration (µg/m³)								
Aliganj	11	13	18	21	26	68	34	30
Vikas Nagar	11	11	16	20	33	53	28	23
Aminabad	15	14	29	34	27	39	25	21
Chowk	10	09	13	27	24	55	28	32
Average	11.7	11.9	19.0	25.4	27.6	54.0	28.8	26.5
SD	2.4	2.0	6.7	6.2	4.0	12.0	3.8	5.3
Oxides of nitrogen Concentration (µg/m³)								
Aliganj	26	23	32	42	36	138	58	64
Vikas Nagar	30	32	36	41	48	136	52	36
Aminabad	37	35	43	61	51	73	42	49
Chowk	32	30	38	48	44	108	46	55
Average	31.3	29.9	37.3	48.2	44.5	113.8	49.5	51.0
SD	4.5	5.3	4.6	9.4	6.3	30.6	7.0	11.7

SD= Standard Deviation

NAAQS: PM_{10} (100 µg/m³), $PM_{2.5}$ (60 µg/m³), SO_2 & NO_2 (80µg/m³)

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"सामूहिक सफलता में ही प्रत्येक व्यक्ति की सफलता निहित है।"
"Until all of us have succeeded, none of us have"




"सुरक्षा पर्यावरण और स्वास्थ्य
और उद्योग के लिये सेवा"
**"safety to environment &
health and service to industry"**




R & D Areas
- Food, Drug & Chemical Toxicology
- Environmental Toxicology
- Regulatory Toxicology
- Toxicoinformatics & Industrial Research
- Systems Toxicology & Health Risk Assessment

R & D Partnership for Industries & Startup
- Centre for Innovation and Transnational Research (CITAR)
- DSIR-IITR-CRTDH Environmental Monitoring and Intervention Hub

Services Offered
- GLP certified pre-clinical toxicity studies
- NABL (ISO/IEC 17025:2017) accredited Safety/ toxicity evaluation of NCEs
- Water quality assessment and monitoring
- Analytical services
- Environmental monitoring and impact assessment
- Information on chemicals/ products
- Computational predictive toxicity assessment

Recognitions
- Scientific & Industrial Research Organizations (SIROs)
- UP Pollution Control Board (Water & Air)
- Indian Factories Act (Drinking water)
- Bureau of Indian Standards (Synthetic detergents)
- Food Safety & Standards Authority of India (FSSAI)

Technologies Developed/ Available
- Oneer- A novel solution for safe drinking water
- Portable Water Analysis Kit
- Mobile Laboratory for environment and human health
- AO Kit for rapid screening of Argemone in mustard oil
- MO Check for detection of Butter Yellow, an adulterant, in edible oils

अनुसंधान एवं विकास क्षेत्र
- खाद्य, औषधि और रासायनिक विषविज्ञान
- पर्यावरण विषविज्ञान
- नियामक विषविज्ञान
- टॉक्सिकोइंफॉर्मेटिक्स एवं औद्योगिक अनुसंधान
- प्रणाली विषविज्ञान एवं स्वास्थ्य आपदा मूल्यांकन

उद्योग और स्टार्टअप के लिए आर एंड डी साझेदारी
- सेंटर फॉर इनोवेशन एंड ट्रांसनैशनल रिसर्च (सिटार)
- डीएसआईआर–आईआईटीआर–सीआरटीडीएच पर्यावरण निगरानी और हस्तक्षेप हब

सेवाएं दी गईं
- जीएलपी प्रमाणित पूर्व–नैदानिक विषाक्तता अध्ययन
- एनएबीएल (आईएसओ/आईईसी 17025:2017) मान्यता प्राप्त एनसीई की सुरक्षा/विषाक्तता मूल्यांकन
- जल गुणवत्ता मूल्यांकन और निगरानी
- विश्लेषणात्मक सेवाएं
- पर्यावरण निगरानी और प्रभाव मूल्यांकन
- रसायनों/उत्पादों के बारे में जानकारी
- कम्प्यूटेशनल भविष्य कहनेवाला विषाक्तता मूल्यांकन

मान्यताएं
- वैज्ञानिक और औद्योगिक अनुसंधान संगठन (एसआईआरओ)
- यूपी प्रदूषण नियंत्रण बोर्ड (जल और वायु)
- भारतीय कारखाना अधिनियम (पीने का पानी)
- भारतीय मानक ब्यूरो (सिंथेटिक डिटर्जेंट)
- भारतीय खाद्य सुरक्षा और मानक प्राधिकरण (पै।ए)

विकसित/उपलब्ध प्रौद्योगिकियां
- ओनीर– सुरक्षित पेयजल के लिए एक नया समाधान
- पोर्टेबल जल विश्लेषण किट
- पर्यावरण और मानव स्वास्थ्य के लिए मोबाइल प्रयोगशाला
- सरसों के तेल में आर्जीमोन की त्वरित जांच के लिए एओ किट
- मक्खन पीले रंग का पता लगाने के लिए एमओ जांच, एक मिलावटी, खाद्य तेलों में

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