



DEEPAWALI FESTIVAL REPORT

**(NOISE LEVEL & AMBIENT
AIR QUALITY
MONITORING)**



(2019)

**Prepared By
RAJASTHAN STATE POLLUTION CONTROL BOARD**

PREFACE

Deepawali is considered as the festival of light and is celebrated with utmost zeal and enthusiasm throughout India. Bursting of firecrackers and illumination of sources is seen as a symbol of joy and prosperity. Noise and Air pollution due to these fire crackers is well known. It therefore becomes necessary to conduct Noise and Ambient Air monitoring during this festival to understand the level of pollution.

Noise Level Monitoring was conducted on **21.10.2019 (Pre-Deepawali Day) & 27.10.2019 (On Deepawali)** at **30** different locations in fourteen cities viz. Alwar, Balotra, Bharatpur, Bhilwara, Bhiwadi, Bikaner, Chittorgarh, Jaipur, Jodhpur, Ajmer, Kota, Pali, Sikar and Udaipur. Ambient Air Quality Monitoring was also carried out on 21.10.2019 (Pre-Deepawali Day) from 06:00 AM 21.10.2019 to 06:00 AM 22.10.2019 as well as on 27.10.2019 (Deepawali day) from 06:00 AM 27.10.2019 to 06:00 AM 28.10.2019 at **34** different locations in eight cities namely; Alwar, Bhiwadi, Bharatpur, Chittorgarh, Jaipur, Jodhpur, Kota and Udaipur.

This report is a compilation of Noise Level and Ambient Air Quality monitoring data of the monitored cities of the state of Rajasthan. The data of previous year have also been incorporated so as to compare with data of previous years.

I sincerely acknowledge the effort of all officials associated with the work for monitoring of noise and air pollution levels on the occasion of Deepawali festival as per the protocol prescribed by CPCB. It would not have been possible to compile and complete this report on ambient noise and ambient air quality without their sincere support and efforts.

Pawan Kumar Goyal
Chairperson

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PART - I

REPORT ON

NOISE LEVEL MONITORING

ON THE OCCASION OF

DEEPAWALI FESTIVAL, 2019



Rajasthan State Pollution Control Board

Deepawali Festival Monitoring Report, 2019

In order to assess the impact of bursting of fire crackers and other predominating noise polluting activities on the occasion of Deepawali, Rajasthan State Pollution Control Board undertook Noise Level Monitoring at several locations in the state. With a view to maintain uniformity in monitoring, the entire Noise Level Monitoring was conducted as per the CPCB protocol.

Noise Level Monitoring was conducted on **21.10.2019 (Pre-Deepawali Day)** & **27.10.2019 (On Deepawali Day)** at **30** different locations in fourteen cities viz. Alwar, Balotra, Bharatpur, Bhilwara, Bhiwadi, Bikaner, Chittorgarh, Jaipur, Jodhpur, Ajmer, Kota, Pali, Sikar and Udaipur. The Noise level monitoring was conducted during day time (18:00 hrs to 22:00 hrs) and night time (22:00 hrs to 24:00 hrs) continuously at each location with sampling frequency of one second. Residential, Commercial, and Silence zones were selected in respect of Noise Standards prescribed under the provisions of Noise Pollution (Regulation & Control) Rules, 2000. The monitoring network consisted of a total of 30 noise monitoring locations across fourteen cities of Rajasthan.

Table 1: Noise Level Monitoring locations

S. No.	Name of the city	No. Monitoring locations
1	Alwar	2
2	Ajmer	1
3	Balotra	1
4	Bharatpur	1
5	Bhilwara	2
6	Bhiwadi	2
7	Bikaner	1
8	Chittorgarh	2
9	Jaipur	6
10	Jodhpur	2
11	Kota	3
12	Pali	3
13	Sikar	1
14	Udaipur	3
Total		30



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Table 2: Noise Level in Lmin, Lmax and Leq dB(A) Pre-Deepawali and on Deepawali Day (21.10.2019 & 27.10.2019)

City	Name of the Station	Time	Day/ Night	Pre-Deepawali Day			On Deepawali		
				21.10.2019			27.10.2019		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Jaipur	Gandhi Nagar (Residential)	18:00 to 19:00 Hr	Day Time	50.7	86.5	60.1	45.3	115.4	81.2
		19:00 to 20:00 Hr		49.5	76.1	56.2	40.2	102.5	69.2
		20:00 to 21:00 Hr		48.1	87.4	56.6	50.5	109.1	76.8
		21:00 to 22:00 Hr	Night Time	47.3	84.9	56.1	47.9	116.3	82.0
		22:00 to 23:00 Hr		46.4	83.2	54.1	54.1	117.2	100.3
		23:00 to 24:00 Hr		41.9	79.1	52.8	37.5	101.4	71.7
Jaipur	Jawahar Nagar (Residential)	18:00 to 19:00 Hr	Day Time	47.4	73.3	56.8	46.0	91.0	65.2
		19:00 to 20:00 Hr		49.1	85.2	57.8	47.8	95.0	72.5
		20:00 to 21:00 Hr		47.5	73.4	55.7	50.9	96.3	74.4
		21:00 to 22:00 Hr	Night Time	46.5	103.5	68.9	56.3	99.3	79.7
		22:00 to 23:00 Hr		44.2	75.1	54.3	59.5	99.5	83.5
		23:00 to 24:00 Hr		43.1	88.1	56.4	57.9	105.9	84.9
Jaipur	Raja Park (Commercial)	18:00 to 19:00 Hr	Day Time	51.7	93.2	65.7	55.4	96.0	80.8
		19:00 to 20:00 Hr		51.5	81.0	65.3	58.1	96.0	80.8
		20:00 to 21:00 Hr		50.2	90.1	60.7	62.7	93.6	82.1
		21:00 to 22:00 Hr	Night Time	49.8	91.1	63.3	56.5	99.8	78.5
		22:00 to 23:00 Hr		55.5	74.6	66.7	65.3	99.4	79.7
		23:00 to 24:00 Hr		31.9	70.0	68.8	40.7	99.2	70.1
Jaipur	Mansarovar (Commercial)	18:00 to 19:00 Hr	Day Time	39.0	90.4	56.4	37.9	109.1	90.0
		19:00 to 20:00 Hr		41.4	81.8	59.1	44.5	108.5	74.2
		20:00 to 21:00 Hr		40.3	78.6	55.6	46.9	110.9	81.2
		21:00 to 22:00 Hr	Night Time	39.8	94.9	58.5	42.4	112.9	78.6
		22:00 to 23:00 Hr		38.3	92.5	57.7	37.3	105.7	74.1
		23:00 to 24:00 Hr		37.4	75.7	47.0	34.7	101.3	72.3
Jaipur	SDM Hospital (Silence)	18:00 to 19:00 Hr	Day Time	55.9	89.7	67.5	51.4	92.7	63.8
		19:00 to 20:00 Hr		54.9	97.3	66.2	51.3	95.2	65.2
		20:00 to 21:00 Hr		53.6	89.3	65.3	52.1	107.4	71.3
		21:00 to 22:00 Hr	Night Time	52.3	97.9	63.0	54.9	103.1	73.6
		22:00 to 23:00 Hr		51.7	93.1	61.6	54.6	100.5	75.4
		23:00 to 24:00 Hr		49.7	88.5	60.8	49.1	103.6	72.6
Jaipur	Civil Lines (Silence)	18:00 to 19:00 Hr	Day Time	45.9	102.3	70.9	44.2	93.1	64.7
		19:00 to 20:00 Hr		49.6	92.7	64.9	46.0	98.9	65.6
		20:00 to 21:00 Hr		48.8	93.1	66.9	49.0	106.2	73.4
		21:00 to 22:00 Hr	Night Time	47.0	95.8	65.2	52.5	94.7	70.9
		22:00 to 23:00 Hr		43.4	89.2	63.5	51.2	101.2	72.3
		23:00 to 24:00 Hr		28.2	92.6	61.6	46.8	96.6	70.0



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City	Name of the Station	Time	Day/ Night	Pre-Deepawali Day			On Deepawali		
				21.10.2019			27.10.2019		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Ajmer	Kutchery Road, Ajmer (Residential Zone)	18:00 to 19:00 Hr	Day Time	34.8	101.5	75.1	57.1	93.3	69.2
		19:00 to 20:00 Hr	Day Time	48.0	99.8	75.6	55.7	98.0	69.7
		20:00 to 21:00 Hr	Day Time	53.8	101.9	75.4	56.3	105.3	72.5
		21:00 to 22:00 Hr	Day Time	45.1	94.2	71.6	57.1	100.5	75.0
		22:00 to 23:00 Hr	Night Time	34.8	92.2	68.0	59.3	101.9	76.7
		23:00 to 24:00 Hr	Night Time	33.1	83.7	48.1	52.9	103.1	76.0
Bhilwara	Near C-209, Azad Nagar, Bhilwara (Residential)	18:00 to 19:00 Hr	Day Time	43.5	97.8	66.4	47.1	126.0	85.4
		19:00 to 20:00 Hr	Day Time	44.2	90.0	64.9	52.5	129.5	91.9
		20:00 to 21:00 Hr	Day Time	46.2	104.4	70.1	54.1	114.5	80.2
		21:00 to 22:00 Hr	Day Time	45.7	107.1	74.4	52.6	125.3	89.3
		22:00 to 23:00 Hr	Night Time	37.2	106.5	72.9	47.8	126.1	94.1
		23:00 to 24:00 Hr	Night Time	35.9	80.0	49.2	32.6	126.3	91.5
Bhilwara	Near Kumbha Circle, Azad Nagar, Bhilwara (Commercial Zone)	18:00 to 19:00 Hr	Day Time	46.3	94.1	68.6	58.3	87.2	67.2
		19:00 to 20:00 Hr	Day Time	56.5	82.2	64.9	58.0	88.1	69.9
		20:00 to 21:00 Hr	Day Time	52.7	92.3	65.0	59.4	95.4	75.5
		21:00 to 22:00 Hr	Day Time	49.6	83.9	59.9	60.1	98.6	75.7
		22:00 to 23:00 Hr	Night Time	47.1	86.3	63.9	58.1	107.0	79.0
		23:00 to 24:00 Hr	Night Time	23.1	95.1	69.6	57.6	106.6	78.4
Pali	Near M/s Maharaja Shree Umed Mills, Pali (Residential)	18:00 to 19:00 Hr	Day Time	50.3	103.6	98.1	48.8	97.7	67.7
		19:00 to 20:00 Hr	Day Time	34.4	69.1	60.3	42.7	103.9	71.5
		20:00 to 21:00 Hr	Day Time	39.3	113.3	73.3	43.2	106.7	70.1
		21:00 to 22:00 Hr	Day Time	48.8	104.4	69.2	42.5	82.9	50.1
		22:00 to 23:00 Hr	Night Time	40.4	100.9	65.0	42.5	82.9	54.8
		23:00 to 24:00 Hr	Night Time	36.9	97.2	65.9	49.8	92.6	67.4
Pali	Surajpol, Near Townhall, Pali (Commercial)	18:00 to 19:00 Hr	Day Time	41.8	103.7	101.1	48.8	104.0	72.0
		19:00 to 20:00 Hr	Day Time	39.4	101.7	66.2	42.5	103.9	72.0
		20:00 to 21:00 Hr	Day Time	49.0	101.7	66.2	44.1	106.7	69.6
		21:00 to 22:00 Hr	Day Time	40.8	100.6	65.8	43.9	78.3	50.5
		22:00 to 23:00 Hr	Night Time	36.7	96.5	65.4	43.8	89.7	54.3
		23:00 to 24:00 Hr	Night Time	38.5	104.0	68.4	47.6	94.6	67.5
Pali	Govt. Bangur Hospital, Pali (Sensitive)	18:00 to 19:00 Hr	Day Time	34.5	102.3	70.5	37.5	105.3	72.4
		19:00 to 20:00 Hr	Day Time	23.1	94.6	61.8	28.1	99.6	63.8
		20:00 to 21:00 Hr	Day Time	31.1	69.4	49.7	36.1	74.4	55.2
		21:00 to 22:00 Hr	Day Time	44.2	70.2	59.2	49.2	75.2	62.2
		22:00 to 23:00 Hr	Night Time	52.2	50.2	64.1	57.2	85.2	71.2
		23:00 to 24:00 Hr	Night Time	39.6	70.6	60.2	44.6	75.6	60.1



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City	Name of the Station	Time	Day/ Night	Pre-Deepawali Day			On Deepawali		
				21.10.2019			27.10.2019		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Bikaner	Junagarh (Commercial)	18:00 to 19:00 Hr	Day Time	51.1	94.8	73.5	55.9	103.6	77.0
		19:00 to 20:00 Hr		60.6	94.3	71.5	60.6	102.3	75.2
		20:00 to 21:00 Hr		59.3	93.2	69.8	60.2	114.0	77.9
		21:00 to 22:00 Hr	Night Time	54.8	94.7	70.9	61.2	100.5	78.3
		22:00 to 23:00 Hr		52.3	100.4	70.4	50.8	114.6	82.4
		23:00 to 24:00 Hr		37.8	94.3	66.6	39.2	118.3	78.6
Jodhpur	Shashtri Nagar Police Station (Commercial)	18:00 to 19:00 Hr	Day Time	59.6	83.2	66.6	58.7	104.3	71.9
		19:00 to 20:00 Hr		59.2	83.3	66.2	57.7	108.5	78.3
		20:00 to 21:00 Hr		64.1	87.5	57.8	59.2	109.4	78.8
		21:00 to 22:00 Hr	Night Time	58.0	94.0	64.5	60.6	106.8	77.4
		22:00 to 23:00 Hr		54.8	82.0	62.4	60.9	110.5	80.8
		23:00 to 24:00 Hr		48.8	78.1	60.0	53.0	110.7	80.1
Jodhpur	Maha Mandir Police Station (Residential)	18:00 to 19:00 Hr	Day Time	50.2	103.1	69.2	48.3	111.3	72.0
		19:00 to 20:00 Hr		49.8	99.6	64.4	48.8	111.6	75.6
		20:00 to 21:00 Hr		48.6	90.5	61.9	49.3	101.9	71.4
		21:00 to 22:00 Hr	Night Time	47.7	92.5	62.0	54.2	118.1	80.9
		22:00 to 23:00 Hr		44.1	87.3	61.5	55.3	117.5	86.1
		23:00 to 24:00 Hr		44.5	90.5	58.3	52.3	113.0	83.9
Kota	MBS Hospital (Silence)	18:00 to 19:00 Hr	Day Time	47.9	95.0	71.5	46.2	95.4	74.1
		19:00 to 20:00 Hr		46.6	98.6	62.9	45.7	98.6	74.6
		20:00 to 21:00 Hr		46.5	90.8	64.8	53.9	102.8	73.6
		21:00 to 22:00 Hr	Night Time	52.0	93.2	66.6	54.3	102.7	73.6
		22:00 to 23:00 Hr		50.2	97.2	69.5	55.3	108.9	76.8
		23:00 to 24:00 Hr		49.8	100.6	72.6	52.0	95.7	72.5
Kota	Dadawada (Residential)	18:00 to 19:00 Hr	Day Time	—	—	60.1	—	—	56.3
		19:00 to 20:00 Hr		—	—	56.1	—	—	59.1
		20:00 to 21:00 Hr		—	—	57.6	—	—	64.7
		21:00 to 22:00 Hr	Night Time	—	—	54.9	—	—	68.8
		22:00 to 23:00 Hr		—	—	50.3	—	—	69.1
		23:00 to 24:00 Hr		—	—	50.8	—	—	68.6
Kota	Gumanpura (Commercial)	18:00 to 19:00 Hr	Day Time	51.4	94.4	74.2	51.3	96.4	72.9
		19:00 to 20:00 Hr		52.8	92.5	70.1	51.5	115.0	81.5
		20:00 to 21:00 Hr		48.9	96.2	69.7	51.9	119.4	82.0
		21:00 to 22:00 Hr	Night Time	50.3	93.2	67.9	54.8	113.6	80.1
		22:00 to 23:00 Hr		47.5	92.3	65.6	53.0	110.4	81.6
		23:00 to 24:00 Hr		44.8	91.2	66.1	47.4	121.3	92.0



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City	Name of the Station	Time	Day/ Night	Pre-Deepawali Day			On Deepawali		
				21.10.2019			27.10.2019		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Udaipur	Near Suraj Pole Gate, Udaipur (Commercial)	18:00 to 19:00 Hr	Day Time	54.5	87.7	81.2	63.5	102.5	82
		19:00 to 20:00 Hr		51.7	98.0	78	78.1	97.5	81.2
		20:00 to 21:00 Hr		50.9	97.0	74.4	79.4	101.3	81.6
		21:00 to 22:00 Hr	Night Time	49.9	95.6	70.3	77.9	106.8	86
		22:00 to 23:00 Hr		48.0	88.2	68.5	78.0	105.3	84.3
		23:00 to 24:00 Hr		43.2	78.4	58.4	61.7	102.8	82.6
Udaipur	M.B. Hospital, Udaipur (Silence)	18:00 to 19:00 Hr	Day Time	50.2	86.0	69.8	55.3	68.3	65.4
		19:00 to 20:00 Hr		52	88.2	68.8	46.6	89.6	70.5
		20:00 to 21:00 Hr		49.8	94.2	70	49.2	91.6	71
		21:00 to 22:00 Hr	Night Time	52.0	88.6	68	51.4	89.3	70
		22:00 to 23:00 Hr		48.2	84.2	64.0	49.8	88.2	67.7
		23:00 to 24:00 Hr		46	64	50.8	48.4	87.4	67.5
Udaipur	Amba Mata Scheme, Udaipur (Residential)	18:00 to 19:00 Hr	Day Time	41.3	91.2	60.3	42.6	99.5	73.3
		19:00 to 20:00 Hr		40.8	75.4	55.3	53.6	105.4	80.4
		20:00 to 21:00 Hr		42.8	80.3	58.3	58.1	105.0	81.1
		21:00 to 22:00 Hr	Night Time	51.4	94.4	73.2	58.5	99.5	77.1
		22:00 to 23:00 Hr		50.3	90.4	71.2	57.9	96.4	79.3
		23:00 to 24:00 Hr		49.8	89.9	70.2	52.6	96.9	75.9
Alwar	Kala Kuan, Alwar (Residential)	18:00 to 19:00 Hr	Day Time	44.2	100.0	67.7	40.1	95.9	62.3
		19:00 to 20:00 Hr		42.3	89.3	63.6	45.1	88.6	61.0
		20:00 to 21:00 Hr		40.5	87.2	52.8	44.0	107.4	73.3
		21:00 to 22:00 Hr	Night Time	40.1	108.9	68.1	48.3	120.7	91.2
		22:00 to 23:00 Hr		42.2	83.0	52.5	51.6	123.9	95.4
		23:00 to 24:00 Hr		33.8	96.3	56.7	47.8	123.7	94.2
Alwar	General Hospital, Alwar (Sensitive Zone)	18:00 to 19:00 Hr	Day Time	50.4	78.5	61.6	41.0	117.1	75.9
		19:00 to 20:00 Hr		50.7	87.7	61.8	41.4	110.5	74.8
		20:00 to 21:00 Hr		48.8	83.2	60.7	40.7	99.5	64.5
		21:00 to 22:00 Hr	Night Time	39.9	92.6	60.3	38.3	92.4	58.3
		22:00 to 23:00 Hr		27.6	92.6	63.2	36.3	88.2	49.9
		23:00 to 24:00 Hr		24.2	63.5	46.8	35.7	77.9	47.5
Sikar	Shivsinghpura Housing Board, Nawalgarh Road, Sikar (Residential Zone)	18:00 to 19:00 Hr	Day Time	46.5	90.5	62.8	43.0	102.3	65.3
		19:00 to 20:00 Hr		44.6	85.4	60.8	44.0	101.9	68.8
		20:00 to 21:00 Hr		42.8	84.8	58.1	44.0	108.4	75.8
		21:00 to 22:00 Hr	Night Time	43.6	84.4	55.9	45.0	103.6	74.0
		22:00 to 23:00 Hr		36.2	73.1	59.0	39.5	100.2	68.7
		23:00 to 24:00 Hr		32.3	75.4	51.1	34.0	94.8	61.9



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City	Name of the Station	Time	Day/ Night	Pre-Deepawali Day			On Deepawali		
				21.10.2019			27.10.2019		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Bhiwadi	Ashiana Garden Society, Bhiwadi (Residential)	18:00 to 19:00 Hr	Day Time	44.5	92.2	67.0	39.6	107.2	75.1
		19:00 to 20:00 Hr	Day Time	43.8	101.7	61.1	33.2	86.2	56.8
		20:00 to 21:00 Hr	Day Time	42.9	86.3	60.6	36.3	119.9	81.0
		21:00 to 22:00 Hr	Day Time	43.2	87.7	62.0	38.6	119.6	82.7
		22:00 to 23:00 Hr	Night Time	31.3	81.7	51.4	32.3	92.1	56.8
		23:00 to 24:00 Hr	Night Time	29.2	76.0	38.8	40.7	89.8	59.5
Bhiwadi	Star Hospital, Bhiwadi (Silent)	18:00 to 19:00 Hr	Day Time	33.6	87.9	62.2	50.0	95.6	68.5
		19:00 to 20:00 Hr	Day Time	49.1	99.8	62.3	54.3	113.8	74.4
		20:00 to 21:00 Hr	Day Time	49.2	86.7	59.6	54.1	113.2	75.2
		21:00 to 22:00 Hr	Day Time	50.2	81.2	58.6	50.2	97.2	73.7
		22:00 to 23:00 Hr	Night Time	46.9	77.8	54.7	46.3	100.9	69.4
		23:00 to 24:00 Hr	Night Time	46.5	81.6	54.9	44.0	104.8	69.0
Chittorgarh	Public Park, Chittorgarh (Commercial)	18:00 to 19:00 Hr	Day Time	53.4	80.5	61.9	52.9	92.3	69.4
		19:00 to 20:00 Hr	Day Time	52.7	92.6	64.7	57.7	107.5	76.3
		20:00 to 21:00 Hr	Day Time	50.6	93.7	62.9	65.6	110.5	77.7
		21:00 to 22:00 Hr	Day Time	48.6	89.4	63.5	66.7	99.1	77.3
		22:00 to 23:00 Hr	Night Time	41.6	81.4	58.6	67.4	103.4	79.3
		23:00 to 24:00 Hr	Night Time	37.7	95.3	61.9	53.9	111.8	79.2
Chittorgarh	Near Home Guard Office, Kumbha Nagar, Chittorgarh (Residential)	18:00 to 19:00 Hr	Day Time	42.6	88.6	61.5	42.6	95.0	67.1
		19:00 to 20:00 Hr	Day Time	47.9	75.5	60.9	42.8	107.5	74.4
		20:00 to 21:00 Hr	Day Time	41.3	97.4	62.9	45.2	116.7	77.2
		21:00 to 22:00 Hr	Day Time	38.7	90.2	59.4	46.6	113.0	84.2
		22:00 to 23:00 Hr	Night Time	39.6	85.6	59	45.4	109.6	81.5
		23:00 to 24:00 Hr	Night Time	36.9	76.6	50.9	41.8	118.9	82.5
Bharatpur	Regional Office, RSPCB, Bharatpur (Residential)	18:00 to 19:00 Hr	Day Time	36.3	79.4	57.8	46.3	81.9	62.3
		19:00 to 20:00 Hr	Day Time	48.4	80.8	61.1	47.6	91.7	65.7
		20:00 to 21:00 Hr	Day Time	50.1	82.7	64.6	49.4	93.2	70.2
		21:00 to 22:00 Hr	Day Time	42.5	83.5	60.1	51.1	95.1	75.4
		22:00 to 23:00 Hr	Night Time	43.2	83.2	59.5	50.5	97.1	71.6
		23:00 to 24:00 Hr	Night Time	37.8	78.1	55.1	49.3	94.5	65.3
Balotra	Maheshwari Bhawan, Near IInd railway Crossing, Balotra (Commercial)	18:00 to 19:00 Hr	Day Time	45.5	100.2	65.2	41.9	88.1	57.6
		19:00 to 20:00 Hr	Day Time	44.4	90.3	57.2	44.2	109.6	74.2
		20:00 to 21:00 Hr	Day Time	44.3	83.8	54.1	47.4	102.1	73.3
		21:00 to 22:00 Hr	Day Time	42.1	87.6	57.2	50.5	108.7	76.9
		22:00 to 23:00 Hr	Night Time	41.3	86.9	54.9	45.1	112.8	80.4
		23:00 to 24:00 Hr	Night Time	40.9	73.8	50.1	41.3	105.8	76.4



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Standard Limits in dB(A) Leq*		
Category of Area / Zone	Day	Night
Commercial	65	55
Residential	55	45
Silence	50	40

Interpretation:

Noise levels in Leq dB(A) on Pre-Deepawali Day and Deepawali day during Day and Night Time from 2014 - 2019 in different cities of Rajasthan have been compiled at **Annexure A**. City-wise detailed observations are as under:

Jaipur:

In Jaipur city, Noise level monitoring was carried out at six locations, namely, Gandhi Nagar (Residential), Jawahar Nagar (Residential), Raja Park (Commercial), Mansarovar (Commercial), SDM Hospital (Silence) and Civil Lines (Silence).

On Pre-Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at all monitoring locations except at Gandhi Nagar (residential area) during day time and SDM Hospital during day and night time. On Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has increased at all monitoring locations except at Raja Park (Commercial area) during both day and night time, Mansarovar (Residential area) during night time and SDM Hospital (Silence zone) during day time.

Ajmer:

In Ajmer city, Noise level monitoring was carried out at one location i.e. Kutchery Road, Ajmer (Residential). In comparison to 2018, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) during day and night time in 2019 has decreased at the monitoring location except during night time on Deepawali day.

Bhilwara:

In Bhilwara city, Noise level monitoring was carried out at two locations, namely, near C-209, Azad Nagar, Bhilwara (Residential) and near Kumbha Circle, Azad Nagar, Bhilwara (Commercial).

In comparison to 2018, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) during day and night time in 2019 has increased at both the monitoring locations except during day time near Kumbha Circle, Azad Nagar, Bhilwara.



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Deepawali Festival Monitoring Report, 2019

Pali:

In Pali city, Noise level monitoring was carried out at three locations, namely, Near M/s Maharaja Shree Umaid Mills, Pali (Residential), Surajpol, Near Townhall, Pali (Commercial) and Govt. Bangur Hospital, Pali (Silence).

On Pre-Deepawali Day and on Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has increased at all monitoring locations except at M/s Maharaja Shree Umaid Mills, Pali during night time on Deepawali day and at Surajpol, Near Townhall, Pali during night time on both days of monitoring.

Bikaner:

In Bikaner city, Noise level monitoring was carried out at two locations i.e. Near Shivbari Chauraha, K.K.Colony (Residential) and Junagarh, Bikaner (Commercial).

On Pre-Deepawali Day and on Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has increased at the monitoring location except during night time on Pre-Deepawali day.

Jodhpur:

In Jodhpur city, Noise level monitoring was carried out at two locations i.e. Mahamandir, Jodhpur (Residential cum Commercial) and Shastri Nagar Police Station, Jodhpur (Residential cum Commercial).

On Pre-Deepawali and Deepawali day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at all monitoring locations except at Shastri Nagar Police Station, Jodhpur on Deepawali day during night time.

Kota:

In Kota city, Noise level monitoring was carried out at three locations, namely M.B.S. Hospital, (Silence), Dadawada (Residential) and Gumanpura (Commercial).

On Pre-Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at all monitoring locations except at Dadawada (day time) and Gumanpura (day and night time); while On Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at all monitoring locations except at MBS Hospital (day and night time) and Gumanpura (night time).



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Deepawali Festival Monitoring Report, 2019

Udaipur:

In Udaipur city, Noise level monitoring was carried out at three locations, namely, Near Suraj Pole Gate, Udaipur (Commercial), M.B. Hospital, (Silence) and Amba Mata Scheme, Udaipur (Residential).

On Pre-Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at all monitoring locations except at MB Hospital (night time) and Amba Mata Scheme (night time); while On Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has increased at all monitoring locations.

Sikar:

In Sikar city, Noise level monitoring was carried out at one location i.e. Shivsinghpura Housing Board, Nawalgarh Road, (Residential).

On Pre-Deepawali and Deepawali day, in comparison to 2018, the concentration of Leq dB(A) both during day and night time in 2019 has increased at the monitoring location.

Bhiwadi:

In Bhiwadi city, Noise level monitoring was carried out at two locations namely, Ashiana Garden Society (Residential) and Star Hospital (Silence).

On Pre-Deepawali and Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at both the monitoring locations except at Ashiana Garden Society during day time on Pre-Deepawali day and Star Hospital during night time on Deepawali Day.

Alwar:

In Alwar city, Noise level monitoring was carried out at two locations, namely, Kala Kuan (Residential) and General Hospital (Silence).

On Pre-Deepawali and Deepawali Day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has increased at the monitoring locations except at General Hospital (night time on Deepawali day)

Bharatpur:

In Bharatpur city, Noise level monitoring was carried out at one location i.e. Regional Office, RSPCB, Bharatpur (Residential).



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Deepawali Festival Monitoring Report, 2019

On Pre-Deepawali and Deepawali day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at the monitoring location except during day time on Deepawali day.

Chittorgarh:

In Chittorgarh city, Noise level monitoring was carried out at two locations i.e. Public Park (Commercial) and Near Home Guard Office, Kumbha Nagar (Residential).

On Pre-Deepawali and Deepawali day, in comparison to 2018, the concentration of Leq dB(A) during day and night time in 2019 has decreased at the monitoring locations except Near Home Guard Office, Kumbha Nagar during day time on Deepawali day.

Balotra:

In Balotra city, Noise level monitoring was carried out at one location i.e. Maheshwari Bhawan, Near IInd Railway Crossing (Commercial).

In comparison to 2018, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) has decreased during day time and increased during night time.

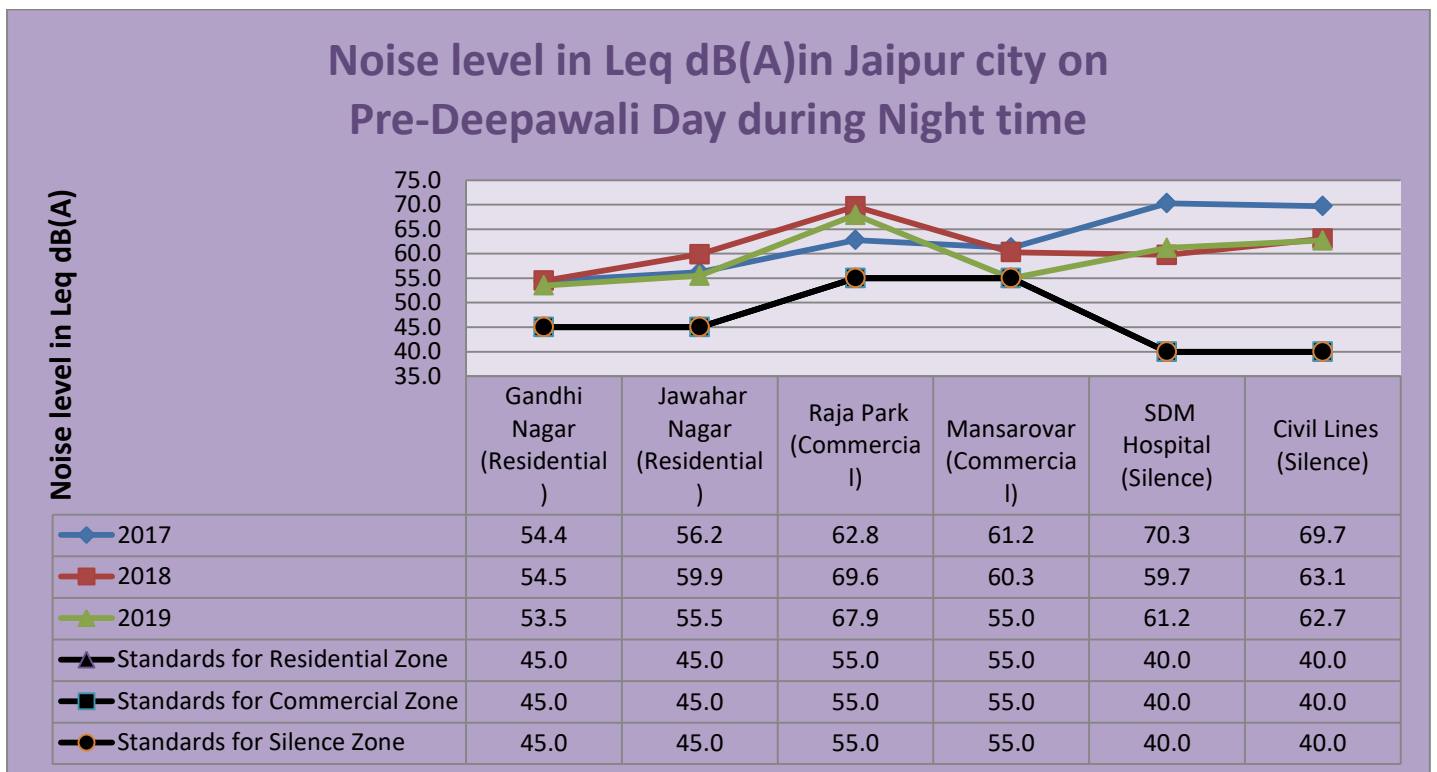
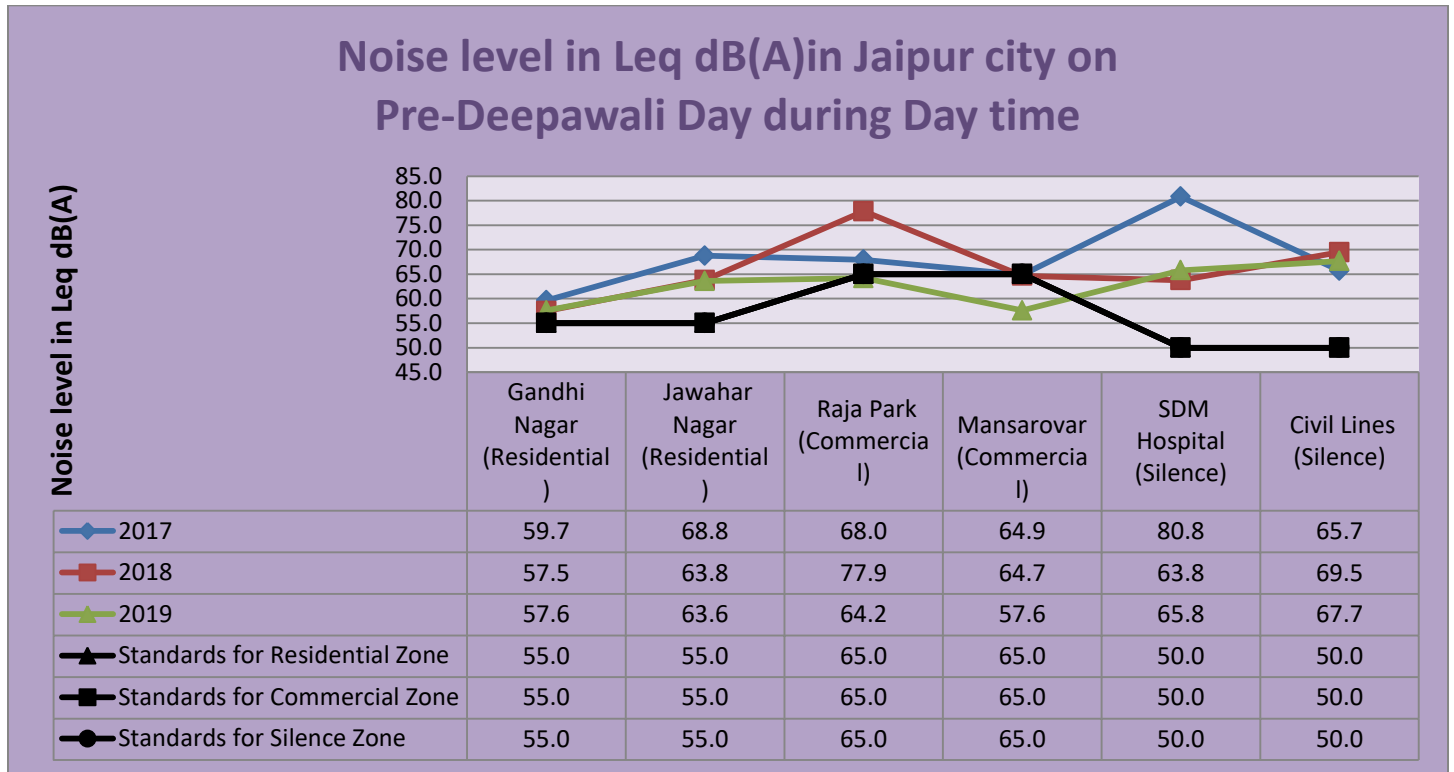
CONCLUSION

- Noise Level Monitoring was conducted on **21.10.2019 (Pre-Deepawali Day)** & **27.10.2019 (On Deepawali Day)** at 30 different locations in fourteen cities. On comparison of noise monitoring levels of 2018 & 2019, decrease in noise level was observed on Pre-Deepawali Day at 17 locations during day time and 18 locations during night time. While on Deepawali Day, decrease in noise level was observed at 12 locations during day time and 11 locations during night time.
- On comparison of noise monitoring levels of Pre-Deepawali Day and Deepawali Day, decrease in noise level was observed on Deepawali Day at 3 locations each during day and night time, at all other locations noise level has increased from Pre-Deepawali Day to Deepawali Day.
- Out of the 30 monitored locations, only four locations i.e. Raja Park, Jaipur (Pre-Deepawali Day- day time), Mansarovar (Pre-Deepawali Day- day and night time), Public Park, Chittorgarh (Pre-Deepawali Day- day time) and Maheshwari Bhawan, Near IInd Railway Crossing, Balotra (Pre-Deepawali Day- day & night time), have complied the Noise Standards prescribed under the provisions of Noise Pollution (Regulation & Control) Rules, 2000.



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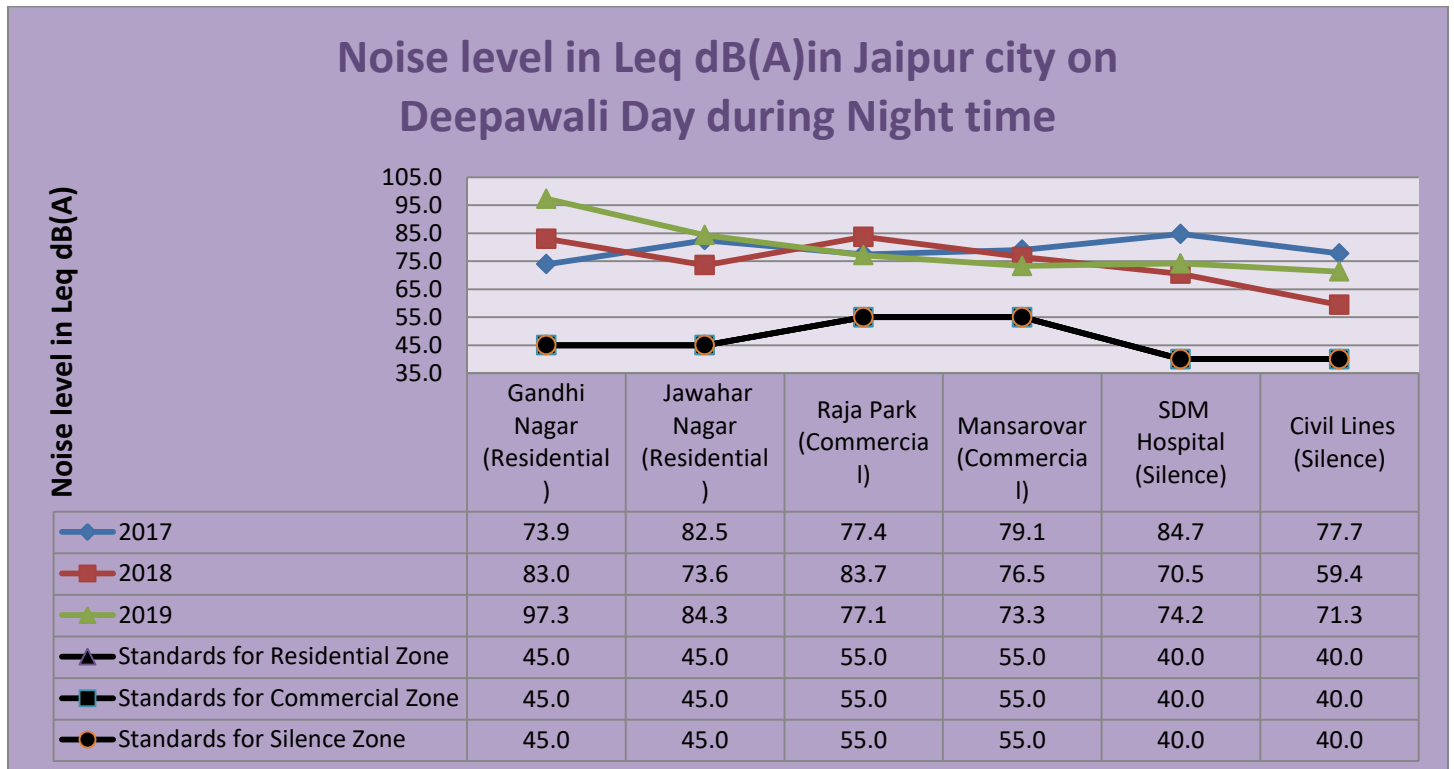
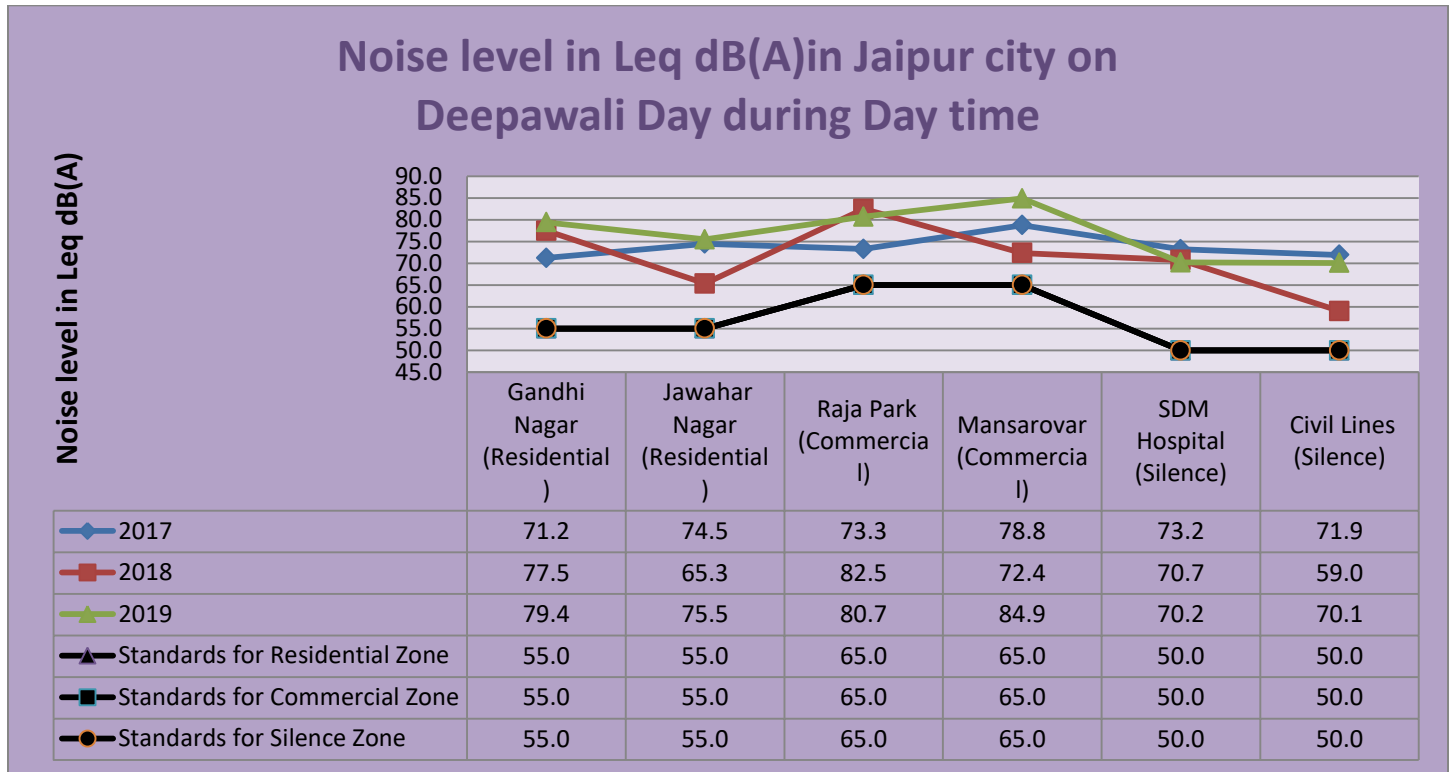
Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:





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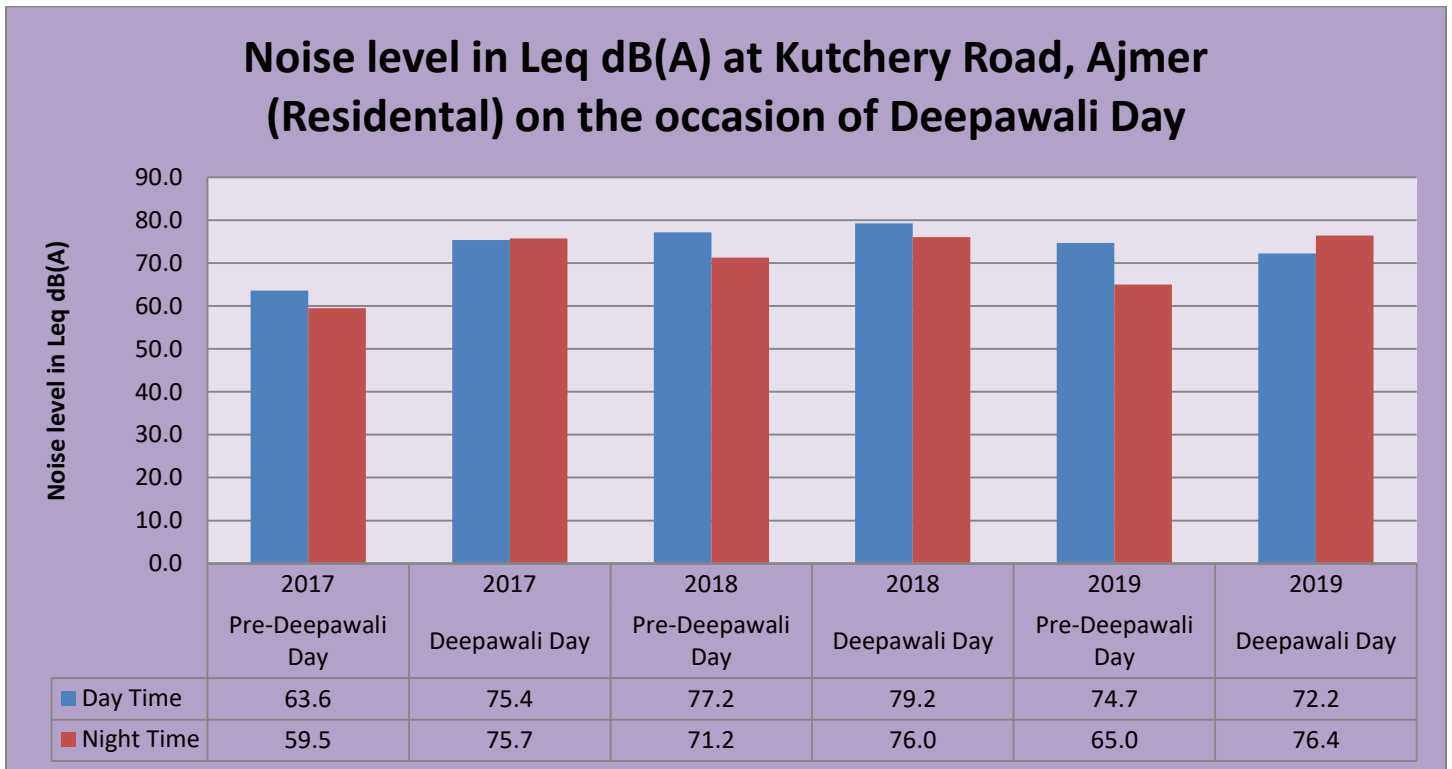
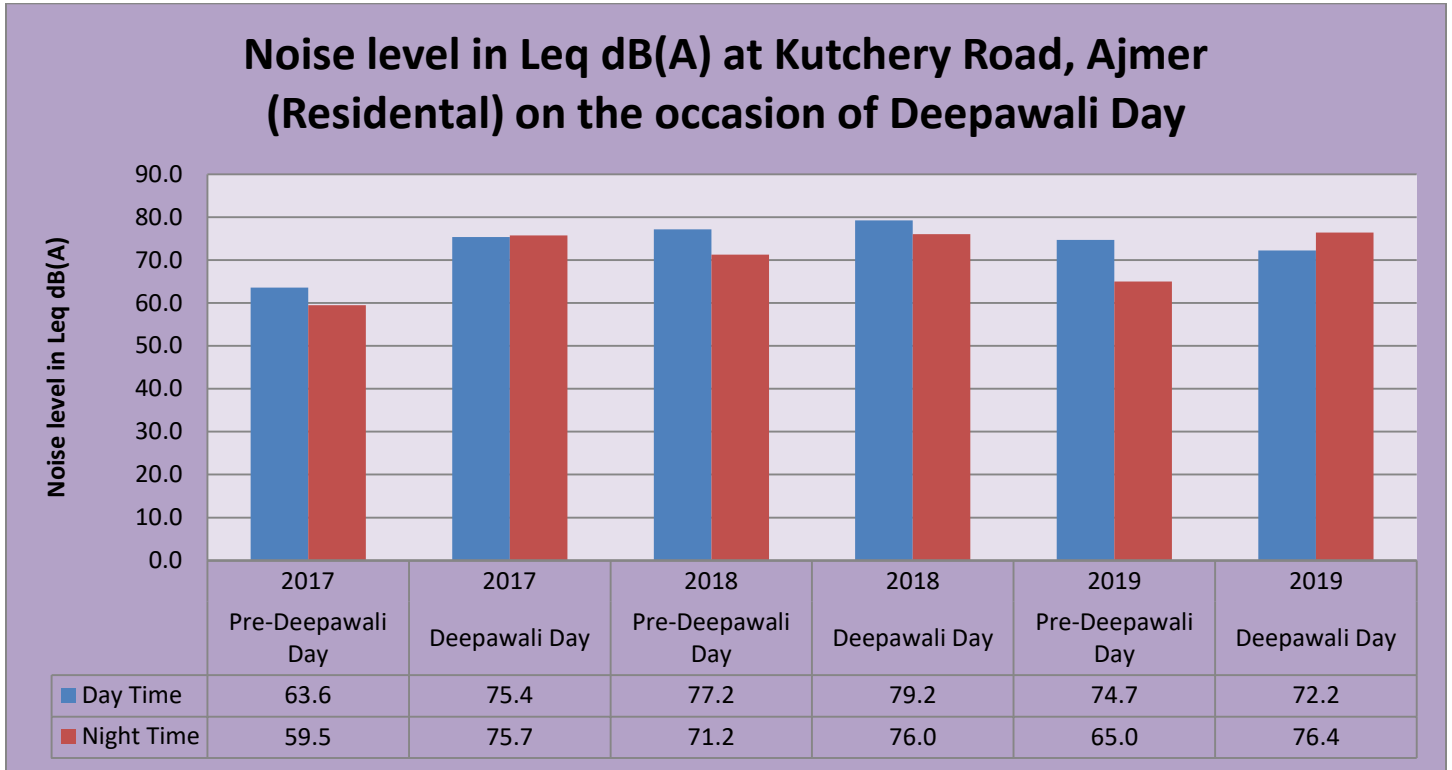
Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:





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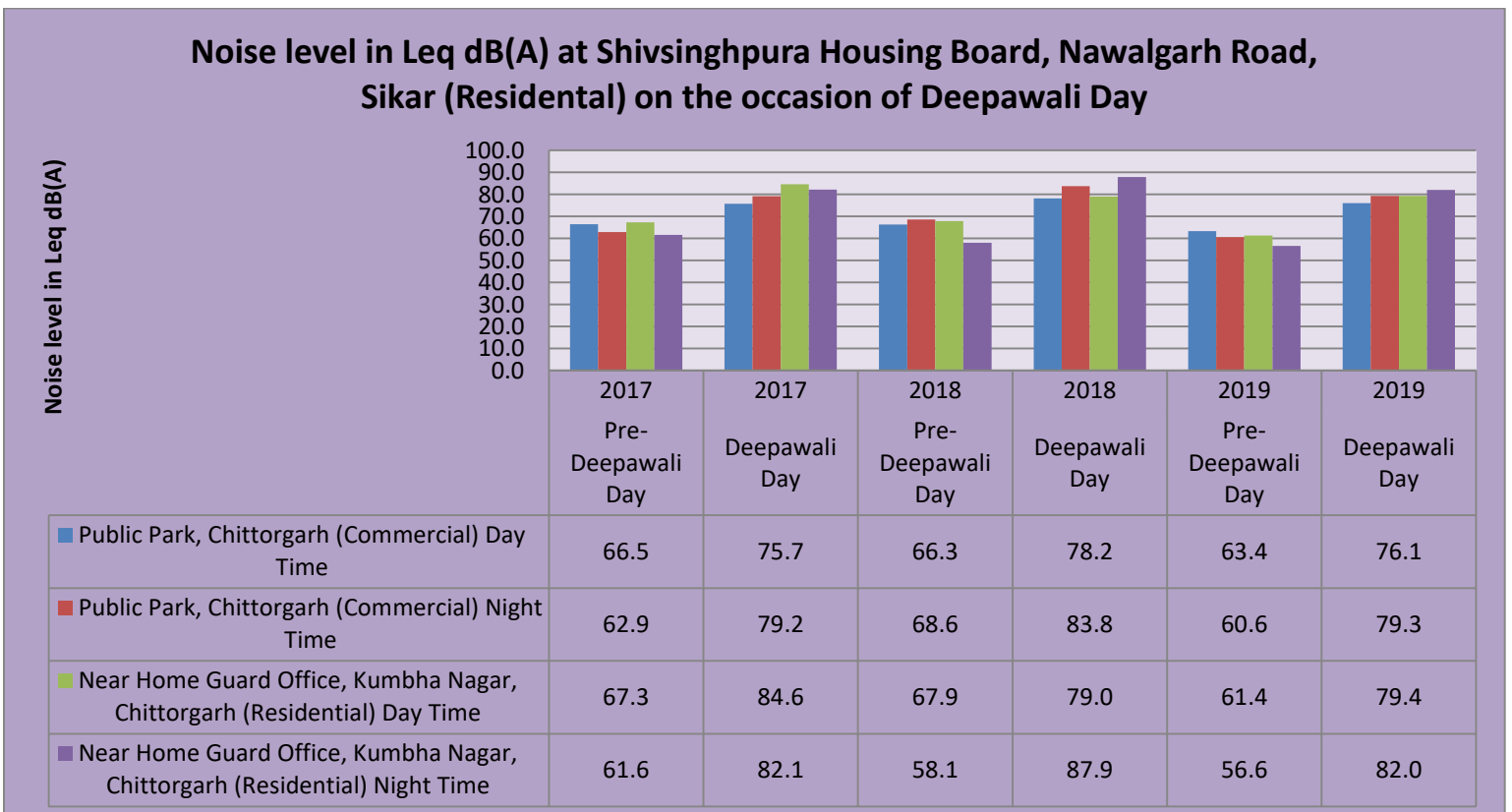
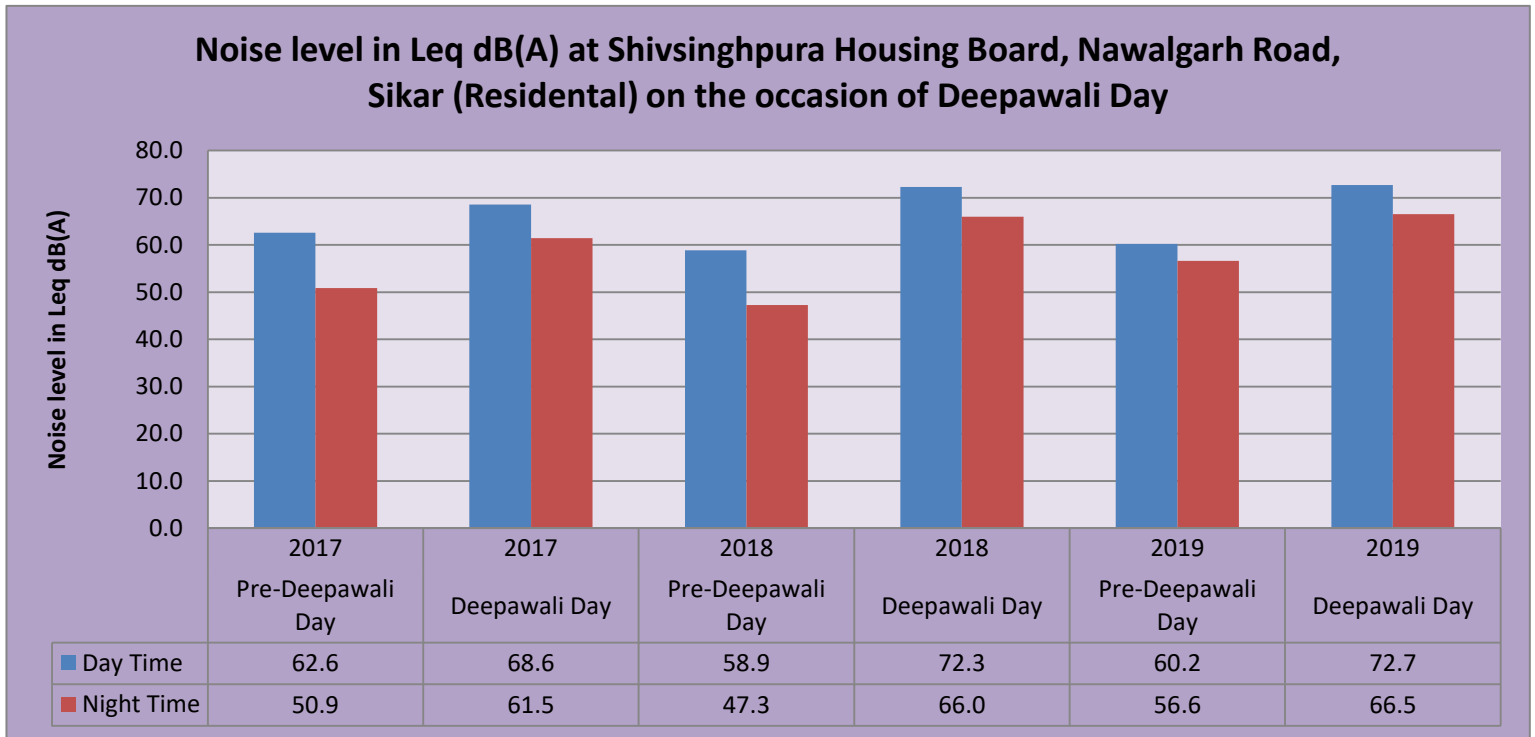
Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:





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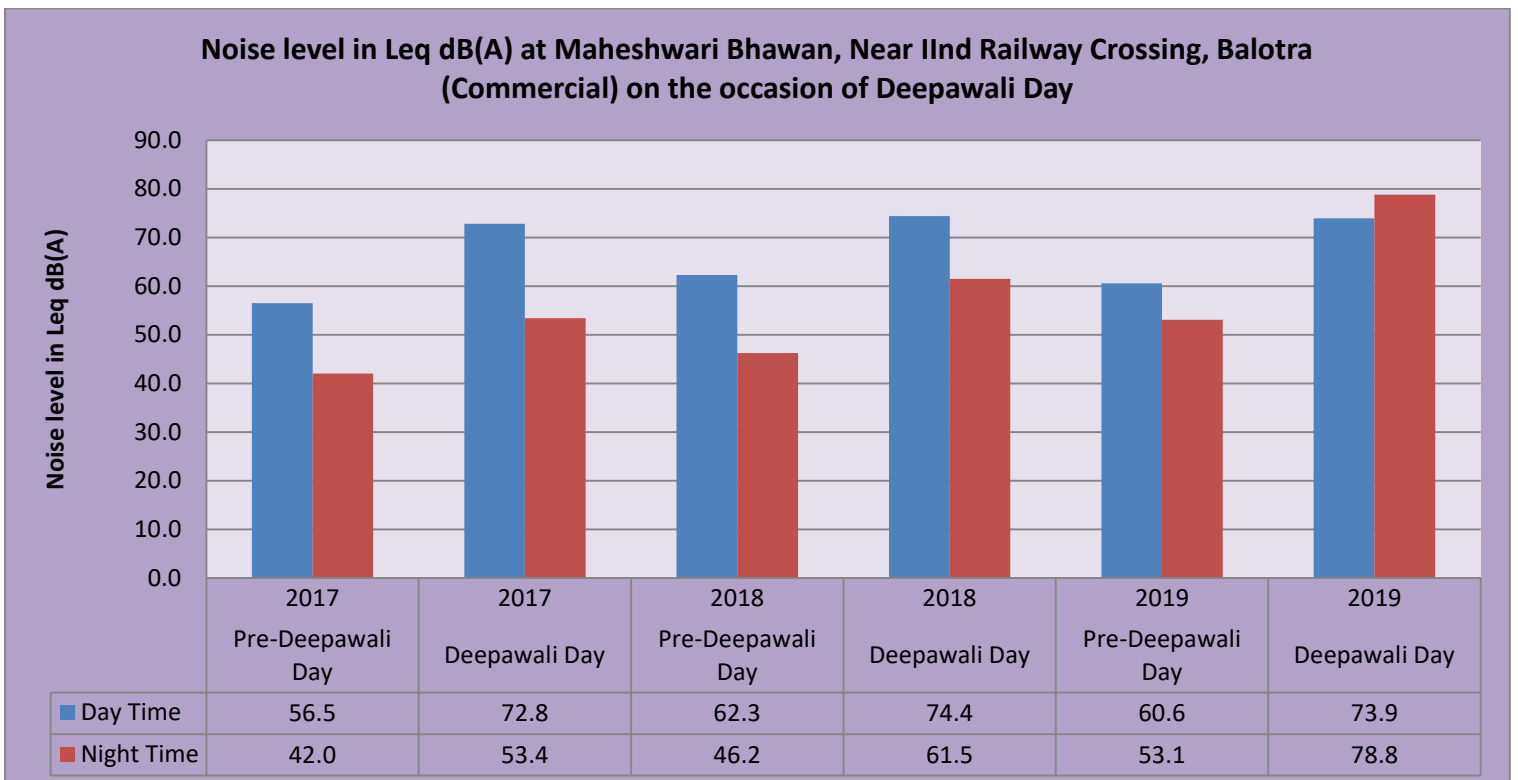
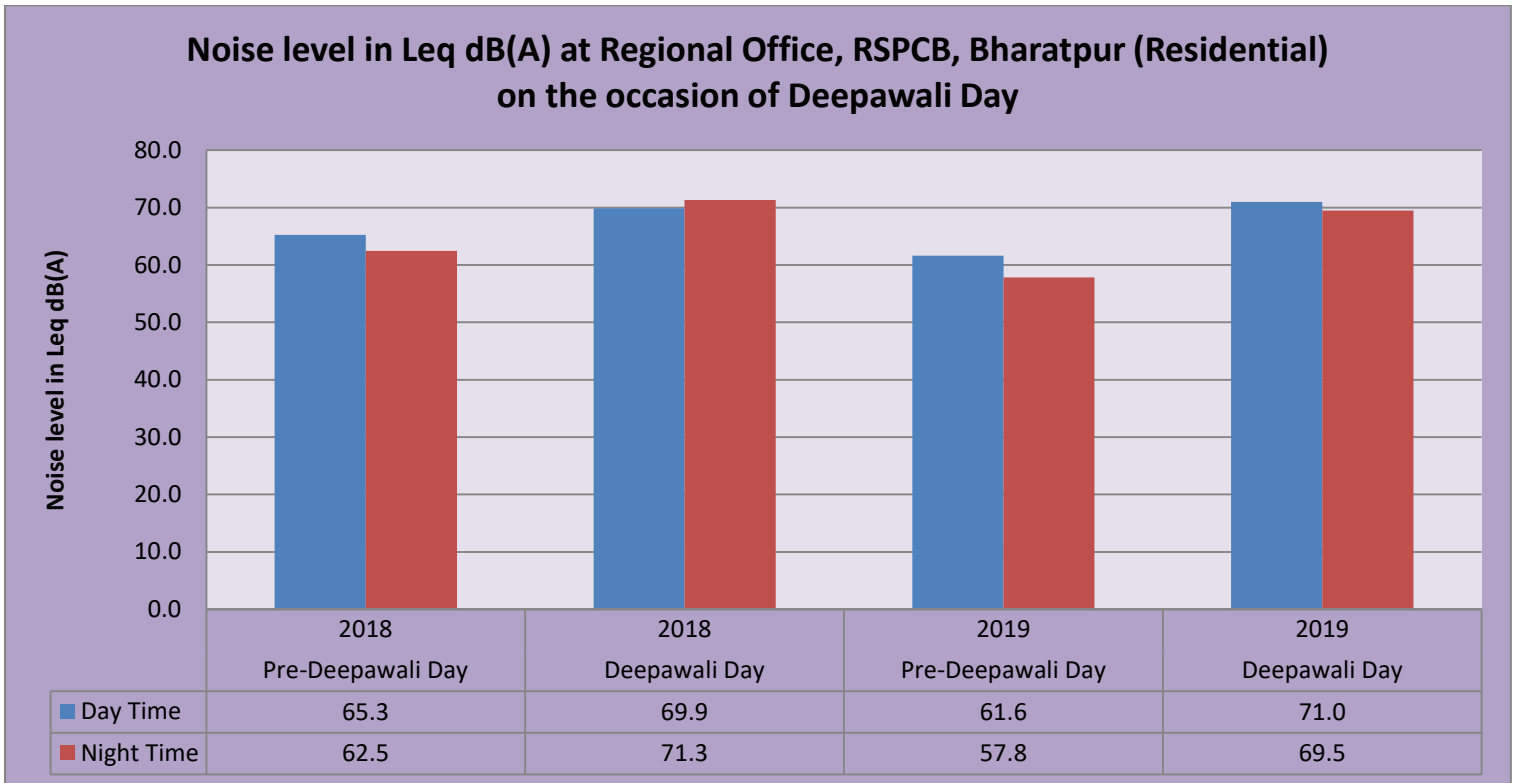
Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:





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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

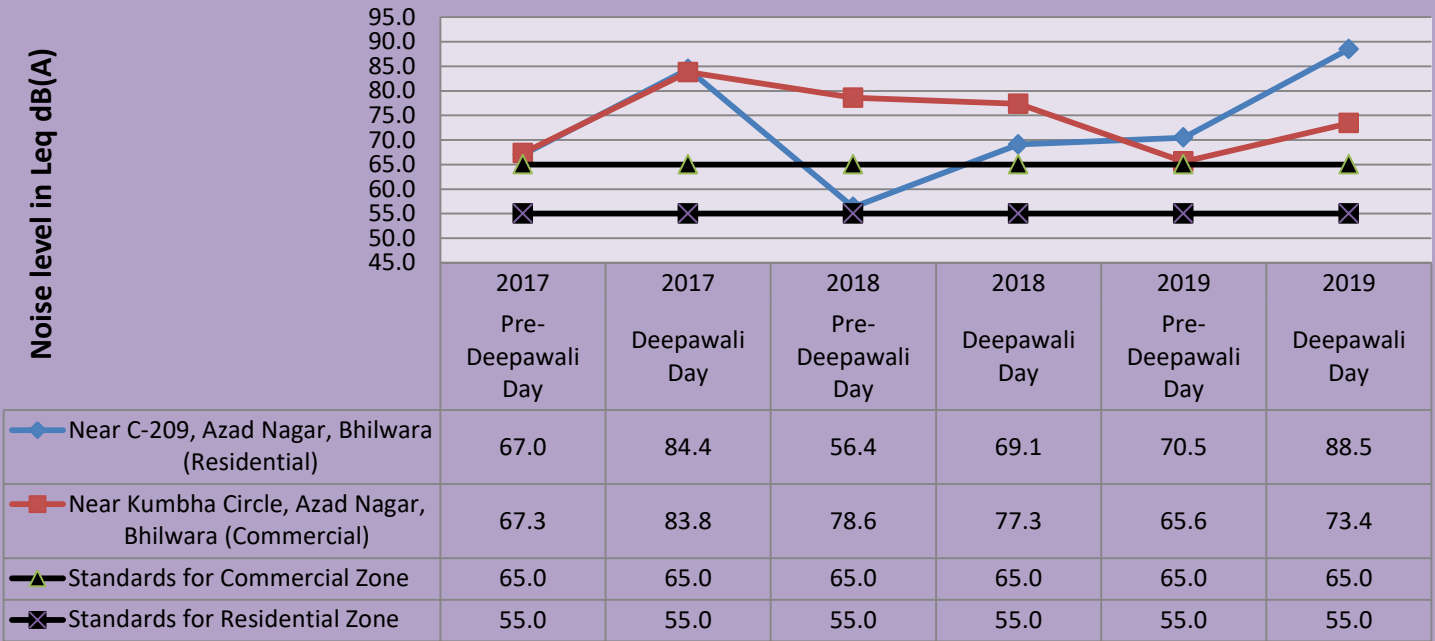




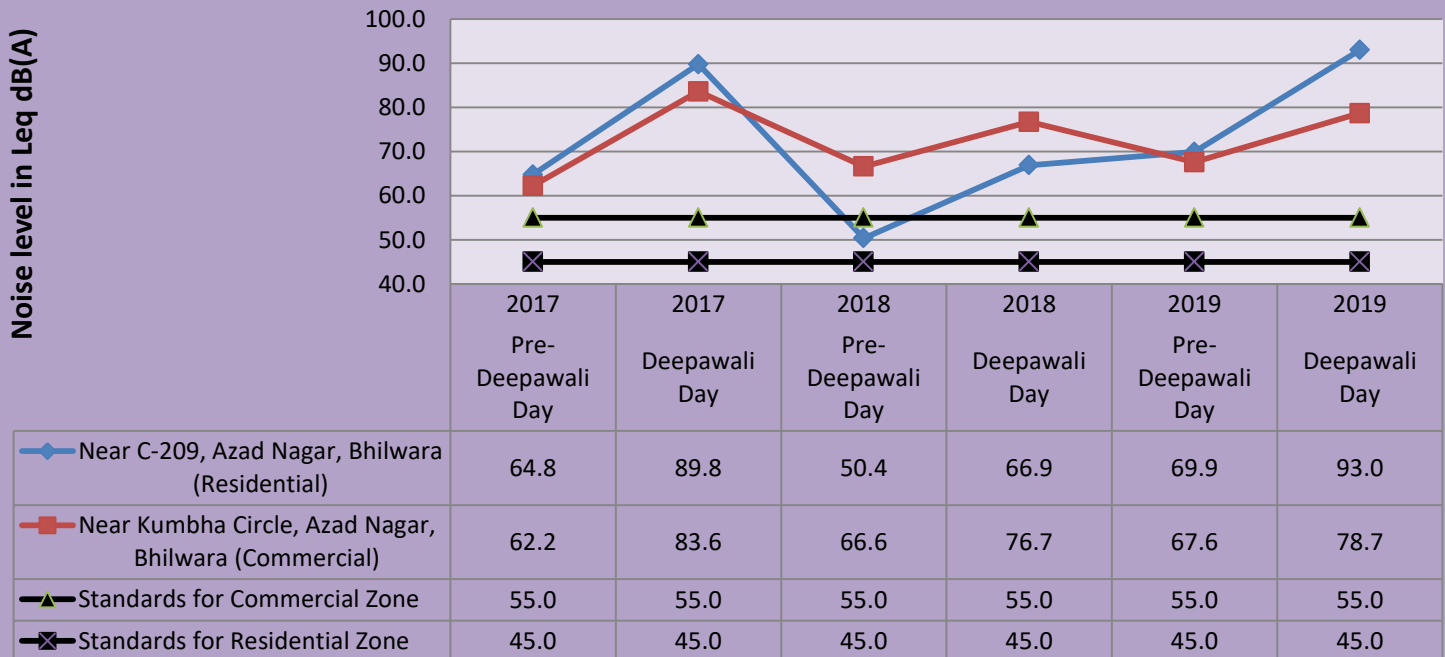
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Bhilwara city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Bhilwara city on the occasion Deepawali during night time

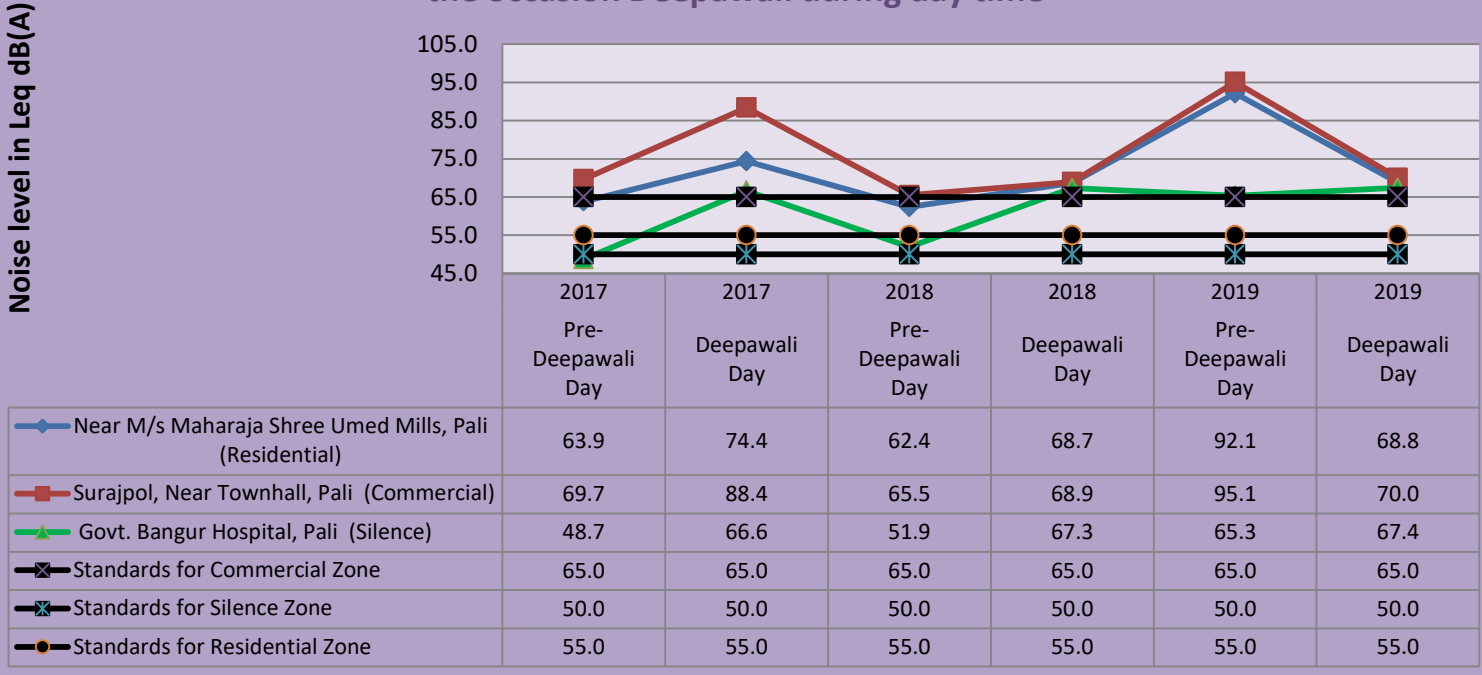




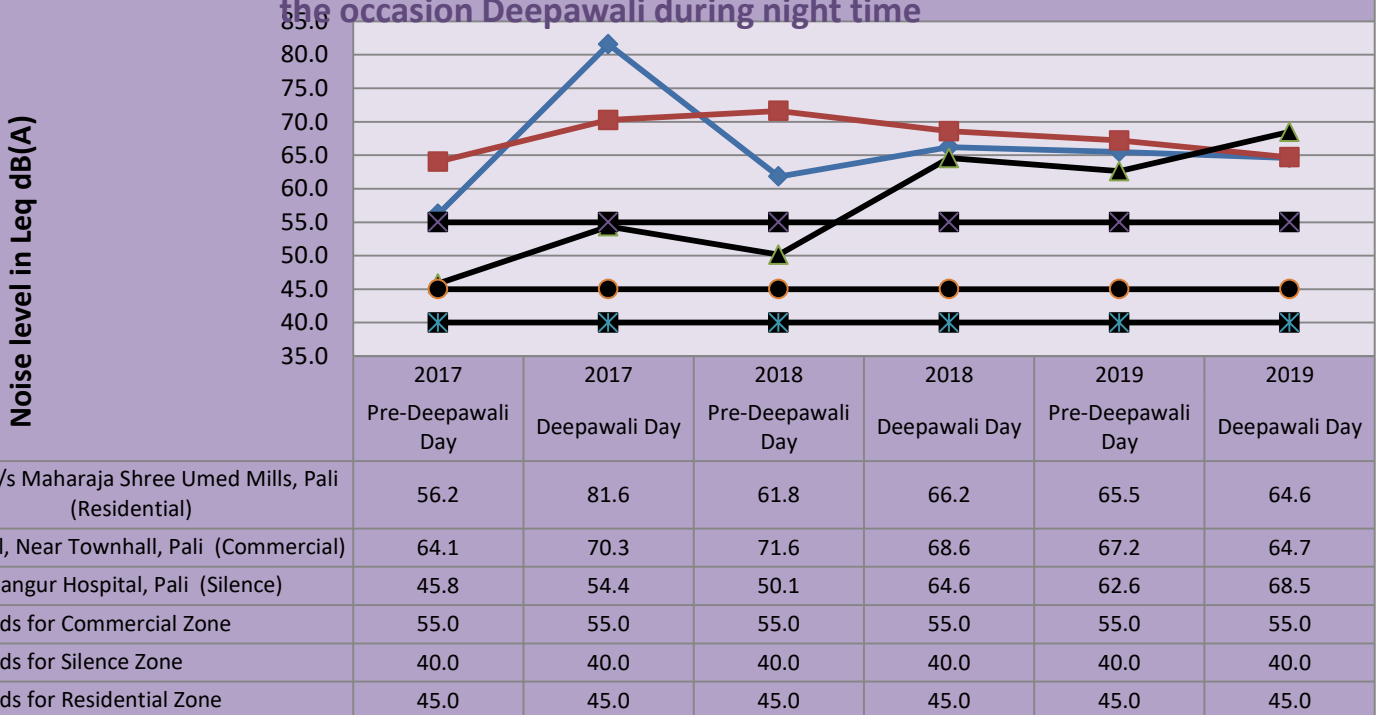
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Pali city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Pali city on the occasion Deepawali during night time

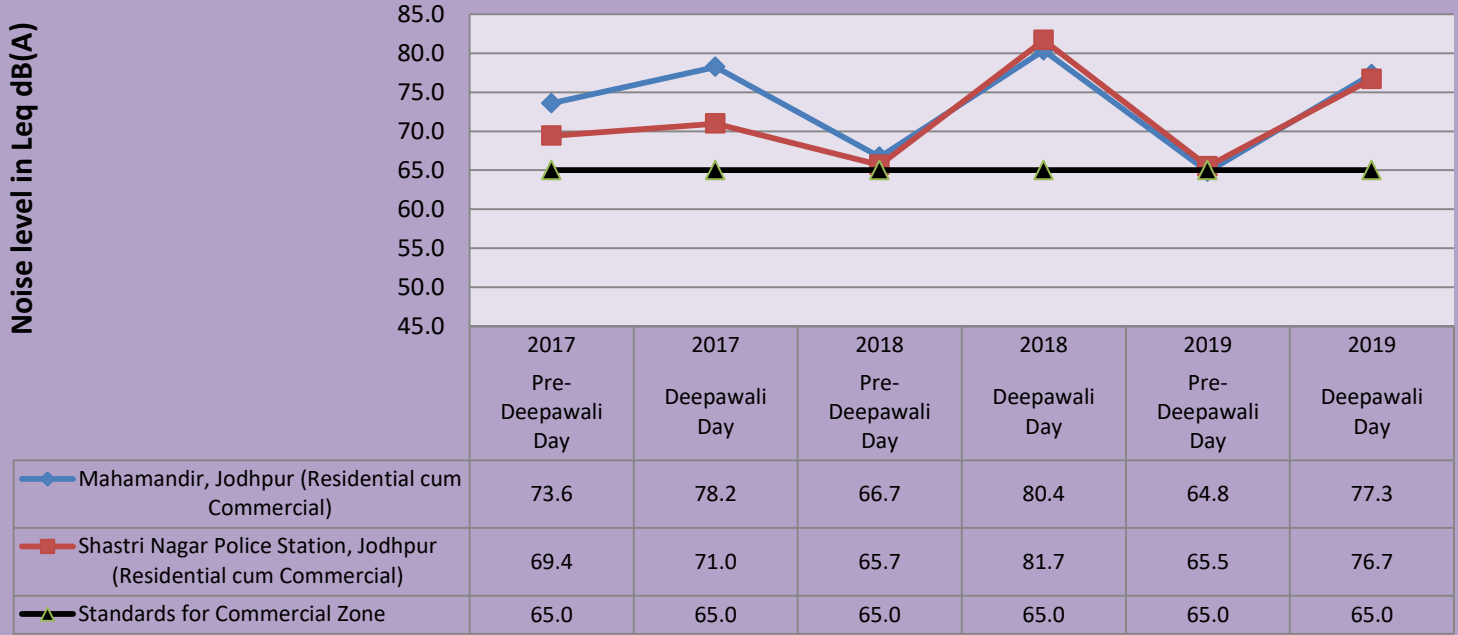




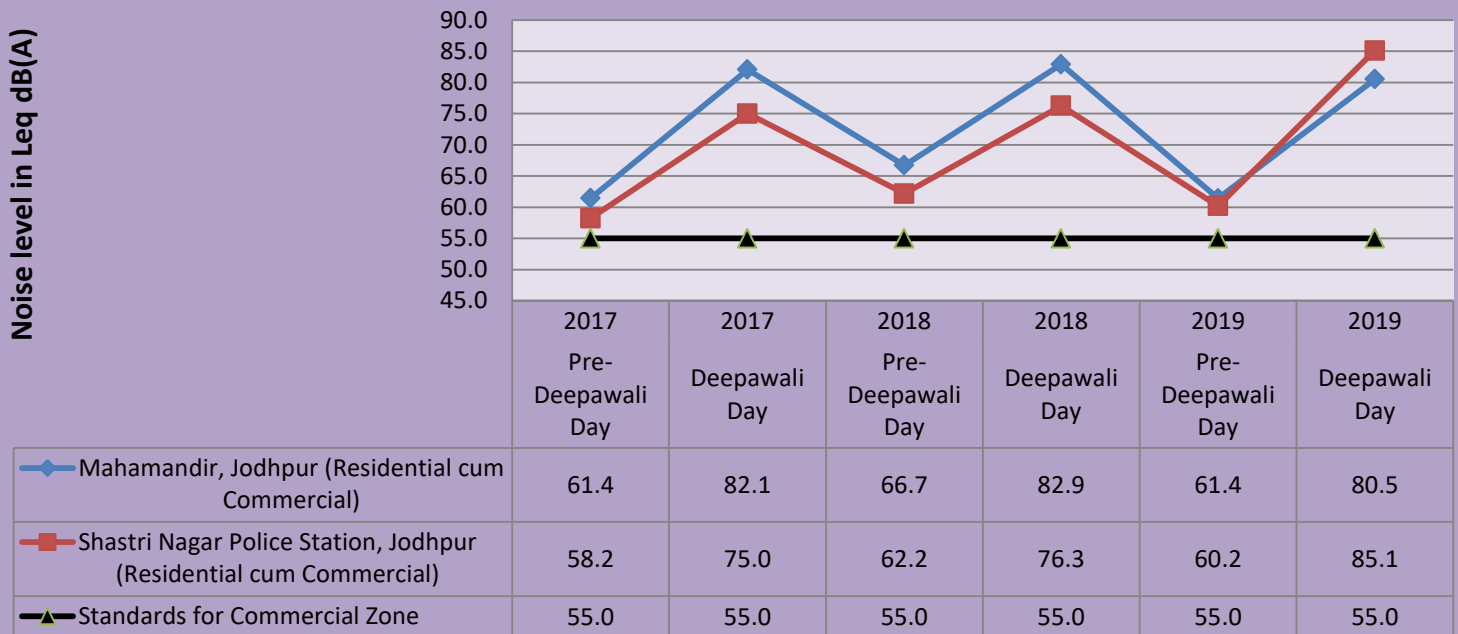
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Jodhpur city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Jodhpur city on the occasion Deepawali during night time

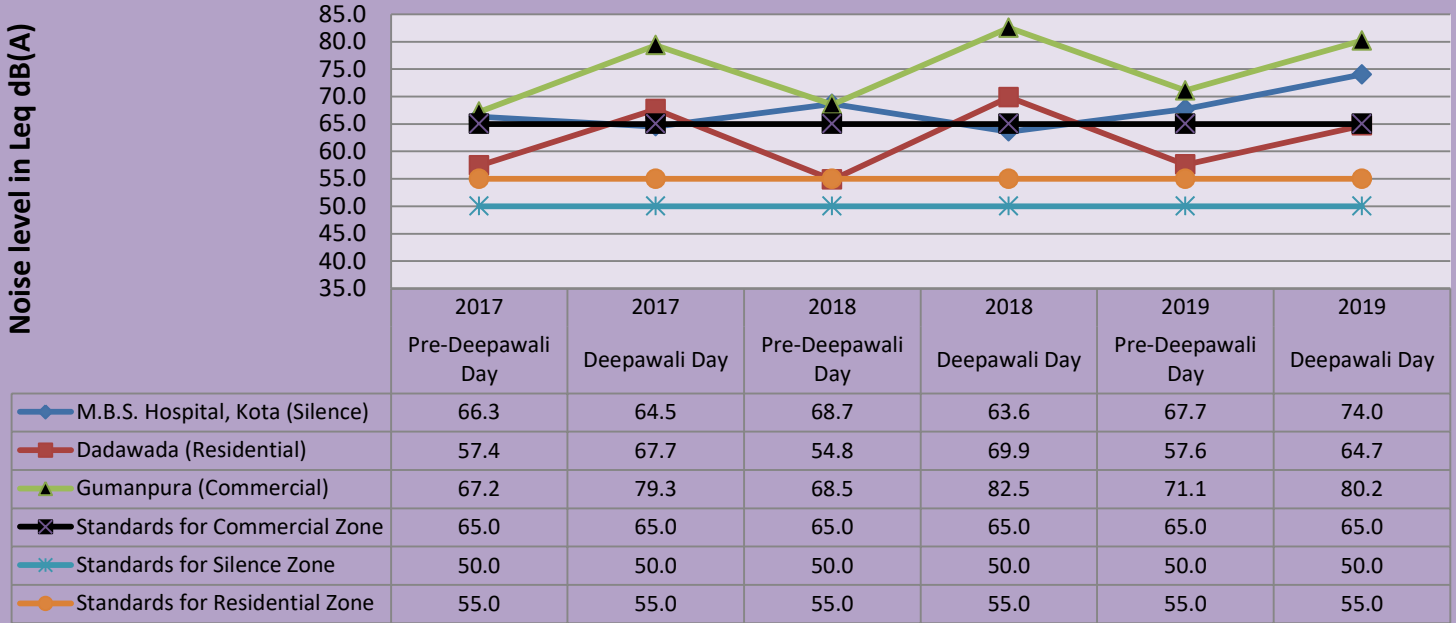




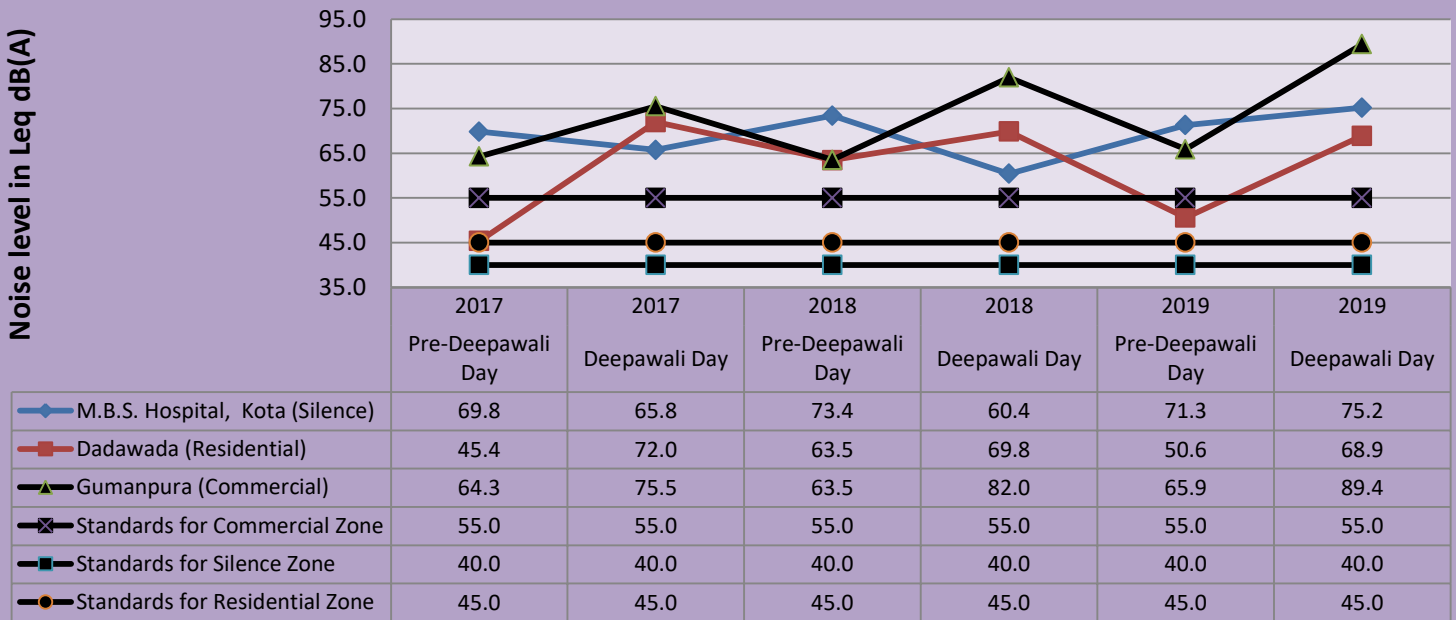
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Kota city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Kota city on the occasion Deepawali during night time

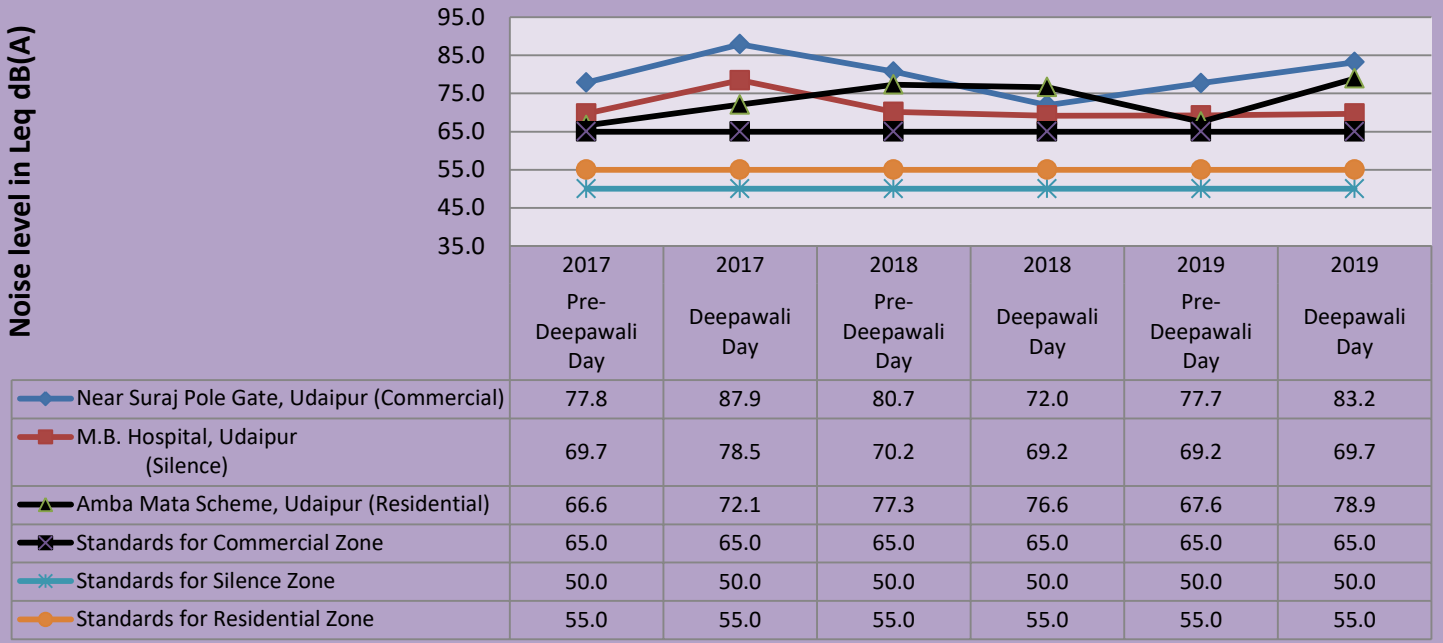




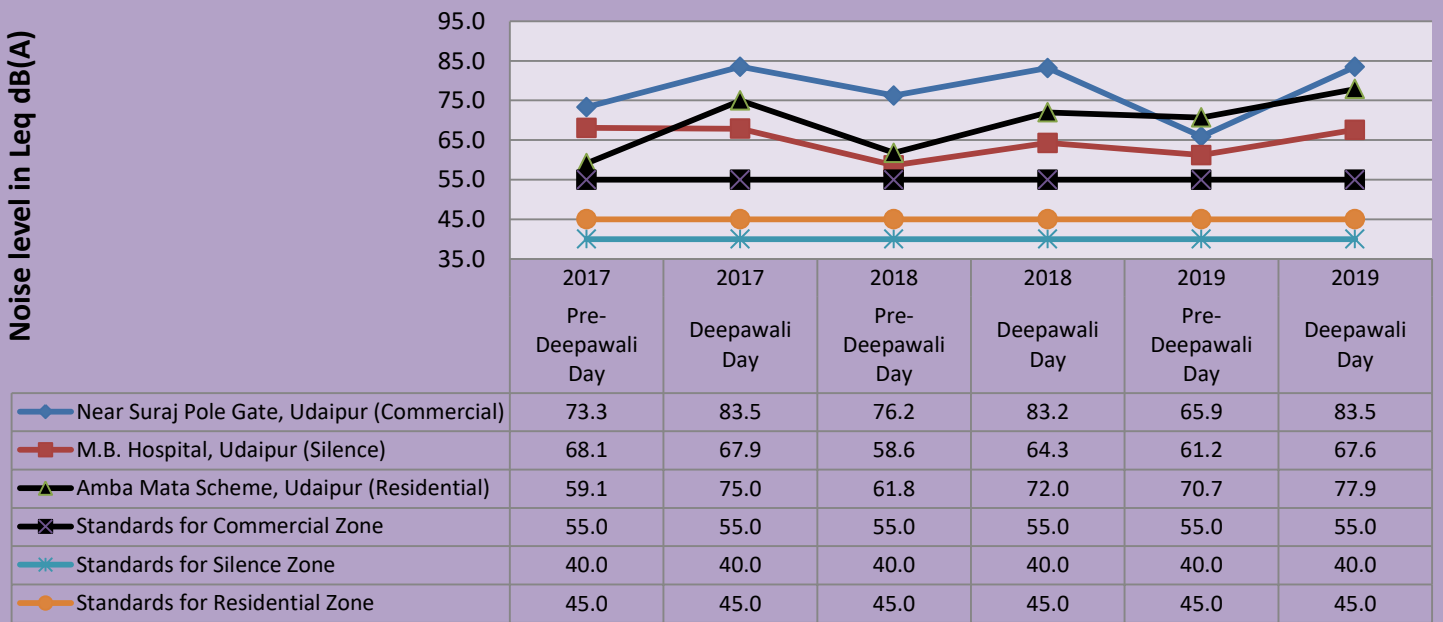
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Udaipur city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Udaipur city on the occasion Deepawali during night time

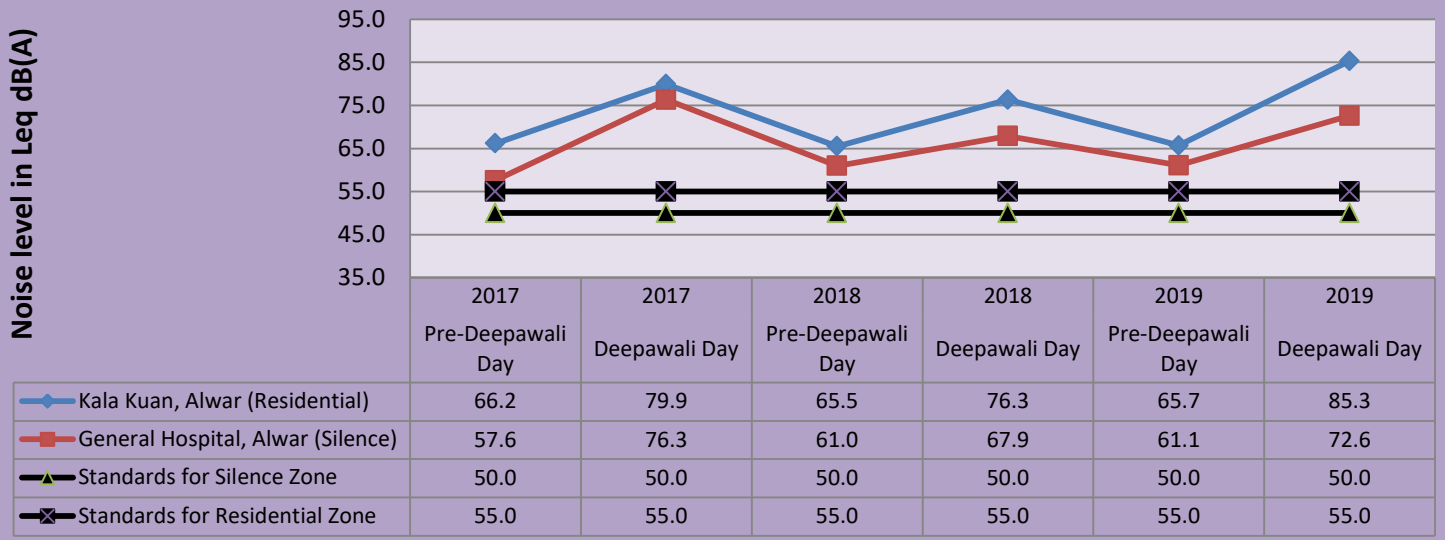




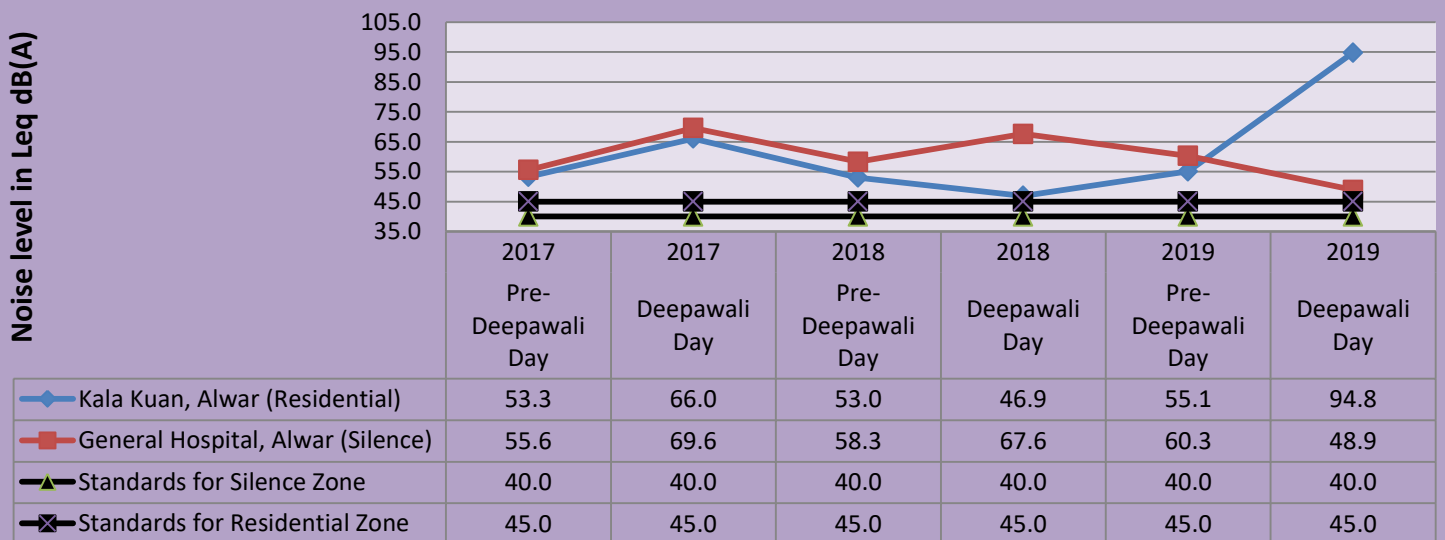
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Graphical Representation of comparison of noise level in all monitored cities during day and night time on Pre-Deepawali and Deepawali day is as under:

Noise level in Leq dB(A) in Alwar city on the occasion Deepawali during day time



Noise level in Leq dB(A) in Alwar city on the occasion Deepawali during night time





PART – II

REPORT ON

AMBIENT AIR QUALITY

MONITORING

ON THE OCCASION OF

DEEPAWALI FESTIVAL, 2019



Rajasthan State Pollution Control Board

Deepawali Festival Monitoring Report, 2019

In order to assess the impact of bursting of fire crackers and other predominating air polluting activities on the occasion of Deepawali, the State Board undertook Manual Ambient Air Quality Monitoring (AAQM) at several locations in the state. With a view to maintain uniformity in monitoring, the entire Ambient Air Quality Monitoring were conducted as per the CPCB protocol.

Manual AAQM was carried out on 21.10.2019 (Pre-Deepawali Day) from 06:00 AM 21.10.2019 to 06:00 AM 22.10.2019 as well as on 27.10.2019 (Deepawali day) from 06:00 AM 27.10.2019 to 06:00 AM 28.10.2019 at 34 different locations in seven cities namely; Alwar, Bhiwadi, Bharatpur, Chittorgarh, Jaipur, Jodhpur, Kota and Udaipur. The manual ambient air quality monitoring was carried out for minimum 24 hours as per the NAMP format of CPCB on both the days of monitoring. During this period samples of ambient air for Particulate Matter (PM₁₀), Sulphur Dioxide (SO₂) and Nitrogen Dioxide (NO₂) were collected and analyzed.

S. No.	Name of the city	No. of Monitoring locations
1	Alwar	2
2	Bharatpur	3
3	Bhiwadi	3
4	Chittorgarh	3
5	Jaipur	7
6	Jodhpur	7
7	Kota	6
8	Udaipur	3
Total		34

Ambient Air Quality Levels in ($\mu\text{g}/\text{m}^3$) on Pre-Deepawali Day and Deepawali Day (2014 – 2019) in different cities of Rajasthan have been compiled at **Annexure B and C** respectively. City-wise detailed observations are as under:

Jaipur:

In Jaipur city, ambient air quality monitoring was carried out at seven locations, namely, Jhalana (Residential Area), Regional Office Jaipur (Residential Area) Ajmeri Gate (Residential Area), V.K.I.A. (Vishwakarma Industrial Area), M.I.A. (Malviya Industrial Area), Sitapura (Industrial Area) and Baees Godam (Industrial Area).



Rajasthan State Pollution Control Board

Deepawali Festival Monitoring Report, 2019

The data reveals that the concentration of Particulate Matter has exceeded the prescribed standards on both days of monitoring except at Jhalana (Pre-Deepawali day) and Malviya Industrial Area (Pre-Deepawali Day). The concentration of Sulphur Dioxide and Nitrogen Dioxide has remained within the prescribed standards on both days of monitoring. The concentration of PM₁₀ has ranged between 91 to 413 µg/m³ in Jaipur city during the monitoring period with maximum concentration of PM₁₀ being reported at Regional Office, Jaipur (413 µg/m³).

Jodhpur:

In Jodhpur city, ambient air quality monitoring was carried out at seven locations, namely, District Industrial Corporation, Regional Office, RSPCB, Jodhpur, Shastri Nagar Police Station, Sojati Gate, Sangaria Police Sub Station, Kudi Bhagtasni Police Station and Soor Sagar Police Station.

On Pre-Deepawali Day, PM₁₀ level has ranged between 118 to 393 µg/m³, while same on Deepawali day it has ranged between 224 to 373 µg/m³. The maximum PM₁₀ value of 393µg/m³ was reported at Sangaria Police Sub Station on Pre-Deepawali Day.

On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ has increased at all monitoring locations except at Sangaria Police Sub Station; the concentration of SO₂ has increased at all locations except at Regional; the concentration of NO₂ has decreased at all locations. On Deepawali day, in comparison to 2018, the concentration of PM₁₀ has decreased at all monitoring locations; the concentration of SO₂ has mixed trends; the concentration of NO₂ has decreased at all locations.

Kota:

In Kota city, ambient air quality monitoring was carried out at six locations, namely, Krishi Vigyan Kendra, Borkhera, Municipal Corporation Rampura, Regional Office, RSPCB, Kota, Common STP Balita, Rajasthan Technical University and Fire Station, S.N. Puram.

On Pre-Deepawali Day, PM₁₀ level has ranged between 84 to 179 µg/m³, while same on Deepawali day it has ranged between 153 to 231µg/m³. The maximum PM₁₀ value of 231µg/m³ was reported at Krishi Vigyan Kendra, Borkhera on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ has decreased at all monitoring locations except at Municipal Corporation Rampura and Fire Station, S.N. Puram; the concentration of SO₂ has increased at all locations except at Regional Office, RSPCB Kota; the concentration of NO₂ has increased at all locations except at Krishi Vigyan Kendra, Borkhera. On Deepawali day, in comparison to 2018, the concentration of PM₁₀ has increased at all monitoring locations; the concentration of SO₂ has mixed trends; the concentration of NO₂ has decreased at all locations except at Municipal Corporation Rampura and Rajasthan Technical University.



Rajasthan State Pollution Control Board

Deepawali Festival Monitoring Report, 2019

Udaipur:

In Udaipur city, ambient air quality monitoring was carried out at three locations namely, Town Hall, Amba Mata, Near Police Chouki and Regional Office, RSPCB, Udaipur.

On Pre-Deepawali Day, PM₁₀ level has ranged between 119 to 133 µg/m³, while same on Deepawali day it has ranged between 143 to 196 µg/m³. The maximum PM₁₀ value of 196 µg/m³ was reported at Regional Office, RSPCB, Udaipur on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ has increased at all monitoring locations except at Town Hall; the concentration of SO₂ has increased at all locations except at Regional Office, RSPCB, Udaipur where the concentration of SO₂ has remained the same, the concentration of NO₂ has decreased at all locations except at Amba Mata, Near Police Chouki. On Deepawali day, in comparison to 2018, the concentration of PM₁₀ has increased at all monitoring locations except at Town Hall; the concentration of SO₂ has increased at all locations; the concentration of NO₂ has decreased at all locations.

Bhiwadi:

In Bhiwadi city, ambient air quality monitoring was carried out at three locations i.e. RO Building, M/s Orient Syntex (new NAMP location, adjacent to previously monitored location Uttam Strips), BIDA STP (new monitoring location) yet to be sanctioned under NAMP.

Data of M/s Orient Syntex (new NAMP location, adjacent to previously monitored location Uttam Strips) and BIDA STP for Pre-Deepawali Day and RO Building and BIDA STP for Deepawali Day; cannot be compared with previous year since monitoring was not conducted at these locations last year. On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ and SO₂ has decreased at RO Building, Bhiwadi; the concentration of NO₂ has increased at RO Building, Bhiwadi. On Deepawali day, in comparison to 2018, the concentration of all three monitored parameters has increased at Uttam Strips, Bhiwadi.

Alwar:

In Alwar city, ambient air quality monitoring was carried out at two locations i.e. Gaurav Solvex and RIICO Pump House, Alwar.

On Pre-Deepawali Day, PM₁₀ level has ranged between 152 to 185 µg/m³, while same on Deepawali day it has ranged between 141 to 154 µg/m³. The maximum PM₁₀ value of 185 µg/m³ was reported at Gaurav Solvex on Pre-Deepawali Day.

On Pre-Deepawali and Deepawali Day, in comparison to 2018, the concentration of all three monitored parameters has decreased at both the monitoring locations.



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Bharatpur:

In Bharatpur city, ambient air quality monitoring was carried out at three locations i.e. Regional Office, RSPCB Building, Bharatpur, RIICO Office Building and Khadi Gramodyog Samiti, Bharatpur.

On Pre-Deepawali Day, PM₁₀ level has ranged between 132 to 257 µg/m³, while same on Deepawali day it has ranged between 220 to 315 µg/m³. The maximum PM₁₀ value of 315 µg/m³ was reported at RIICO Office Building, Bharatpur.

On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ has decreased at the monitoring locations except at Regional Office, RSPCB Building, Bharatpur; the concentration of SO₂ and NO₂ has increased at the monitoring locations except at Regional Office, RSPCB Building, Bharatpur. On Deepawali day, in comparison to 2018, the concentration of PM₁₀ has decreased at the monitoring locations, the concentration of SO₂ and NO₂ has increased at the monitoring locations except at Regional Office, RSPCB Building, Bharatpur.

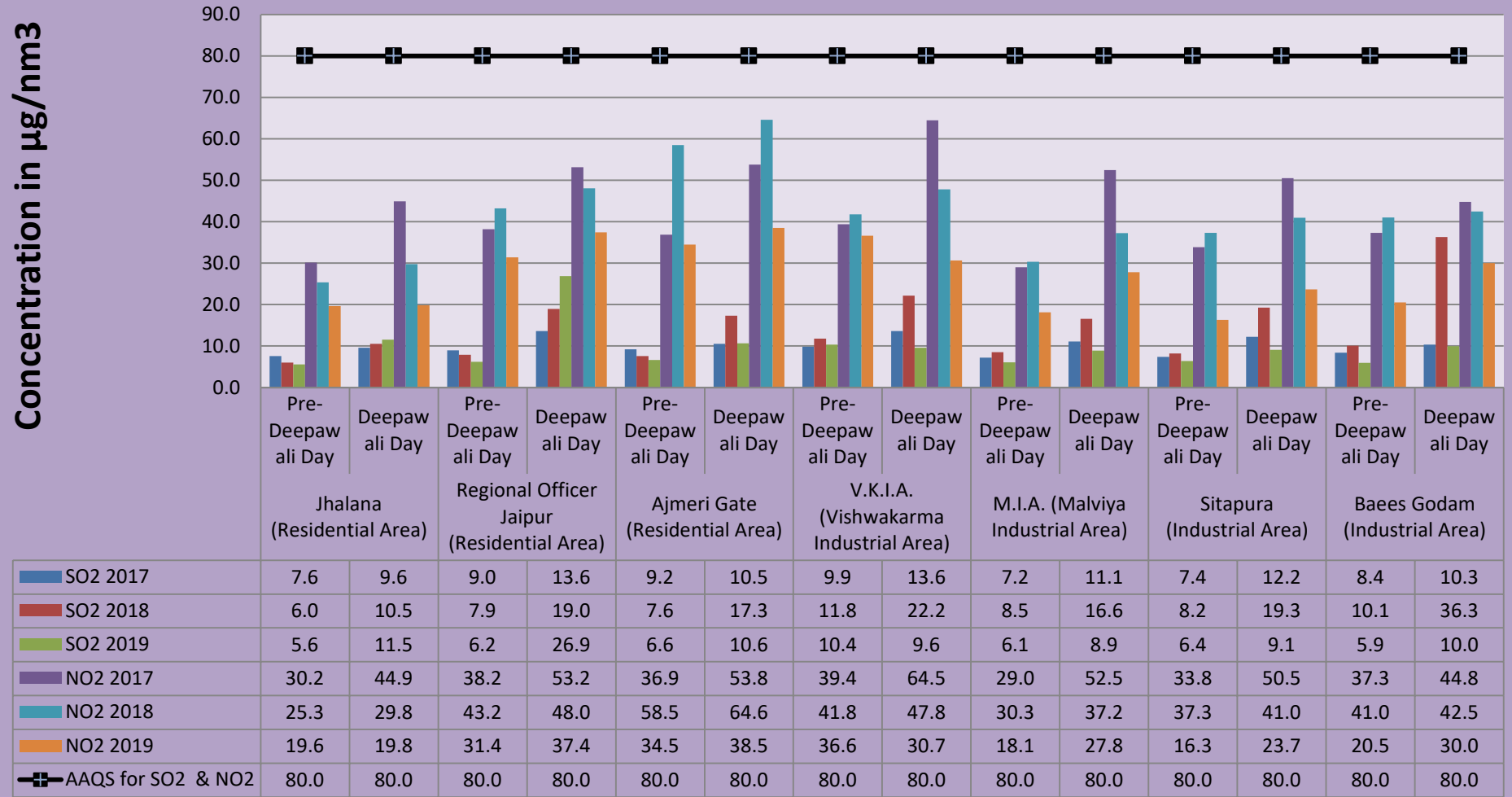
Chittorgarh:

In Chittorgarh city, ambient air quality monitoring was carried out at three locations i.e. RO Building, Chanderiya, Veterinary Hospital, Meera Nagar and PHED Pump House, Segwa, Bharatpur.

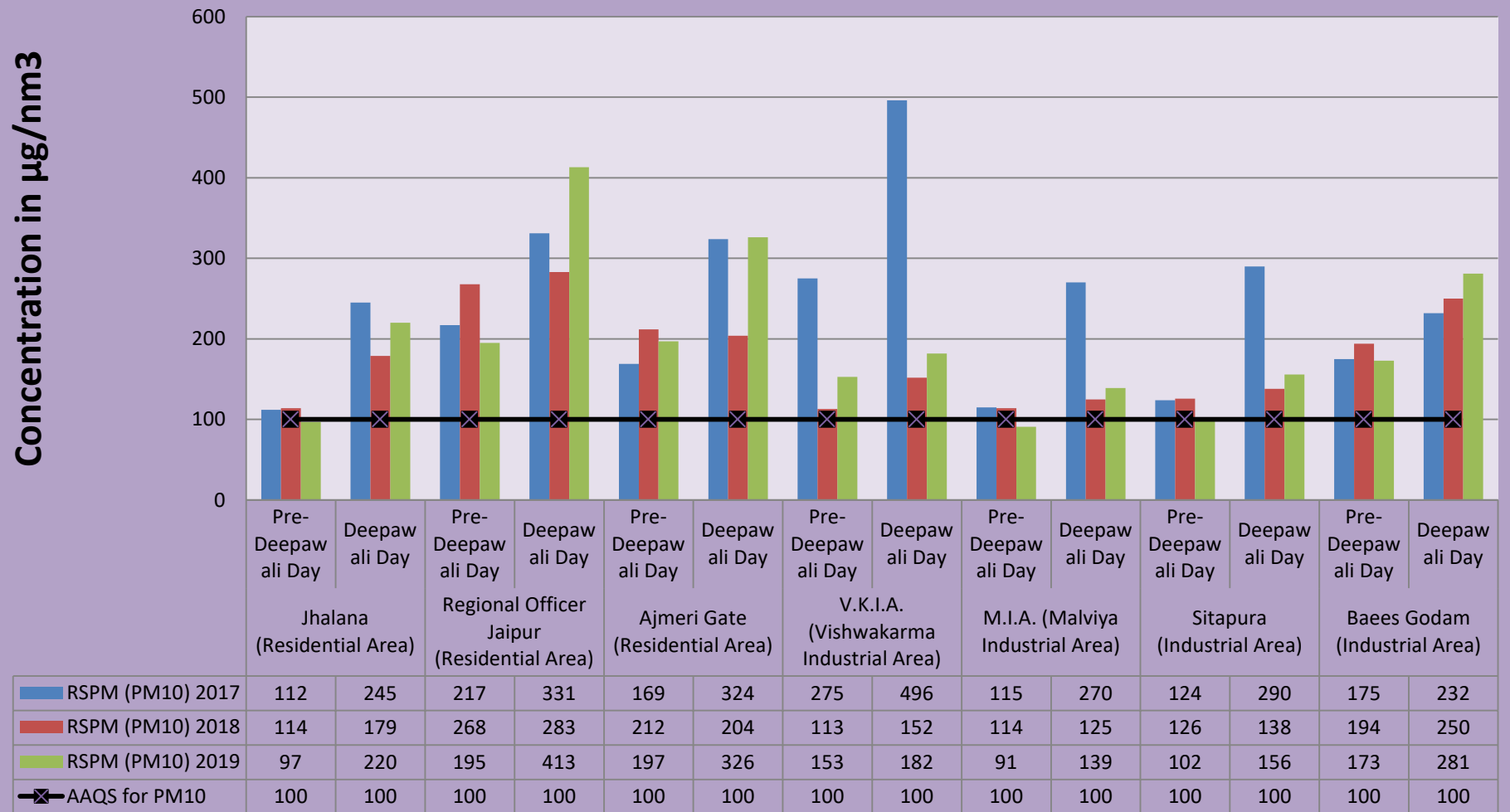
On Pre-Deepawali Day, PM₁₀ level has ranged between 111 to 205 µg/m³, while same on Deepawali day it has ranged between 160 to 214 µg/m³. The maximum PM₁₀ value of 214 µg/m³ was reported at RO Building, Chanderiya on Deepawali day.

On Pre-Deepawali Day, in comparison to 2018, the concentration of PM₁₀ has decreased at the monitoring locations except at RO Building, Chanderiya, the concentration of SO₂ has increased at the monitoring locations except at PHED Pump House, Segwa, Bharatpur, while the concentration of NO₂ has decreased at the monitoring locations except at PHED Pump House, Segwa, Bharatpur. On Deepawali day, in comparison to 2018, the concentration of PM₁₀ has decreased at the monitoring locations, the concentration of SO₂ has increased at the monitoring locations except at Veterinary Hospital, Meera Nagar, while the concentration of NO₂ has decreased at the monitoring locations except at PHED Pump House, Segwa, Bharatpur.

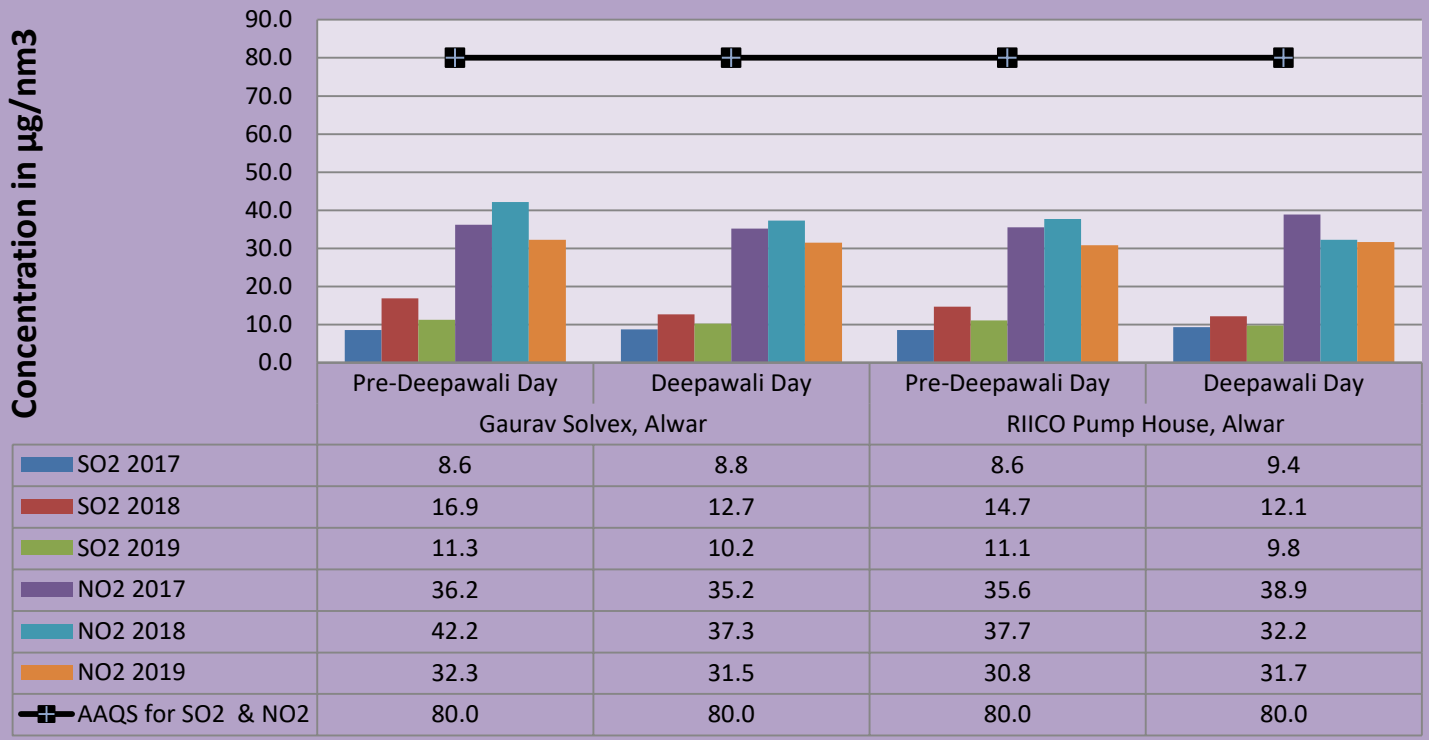
SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Jaipur from 2017 to 2019



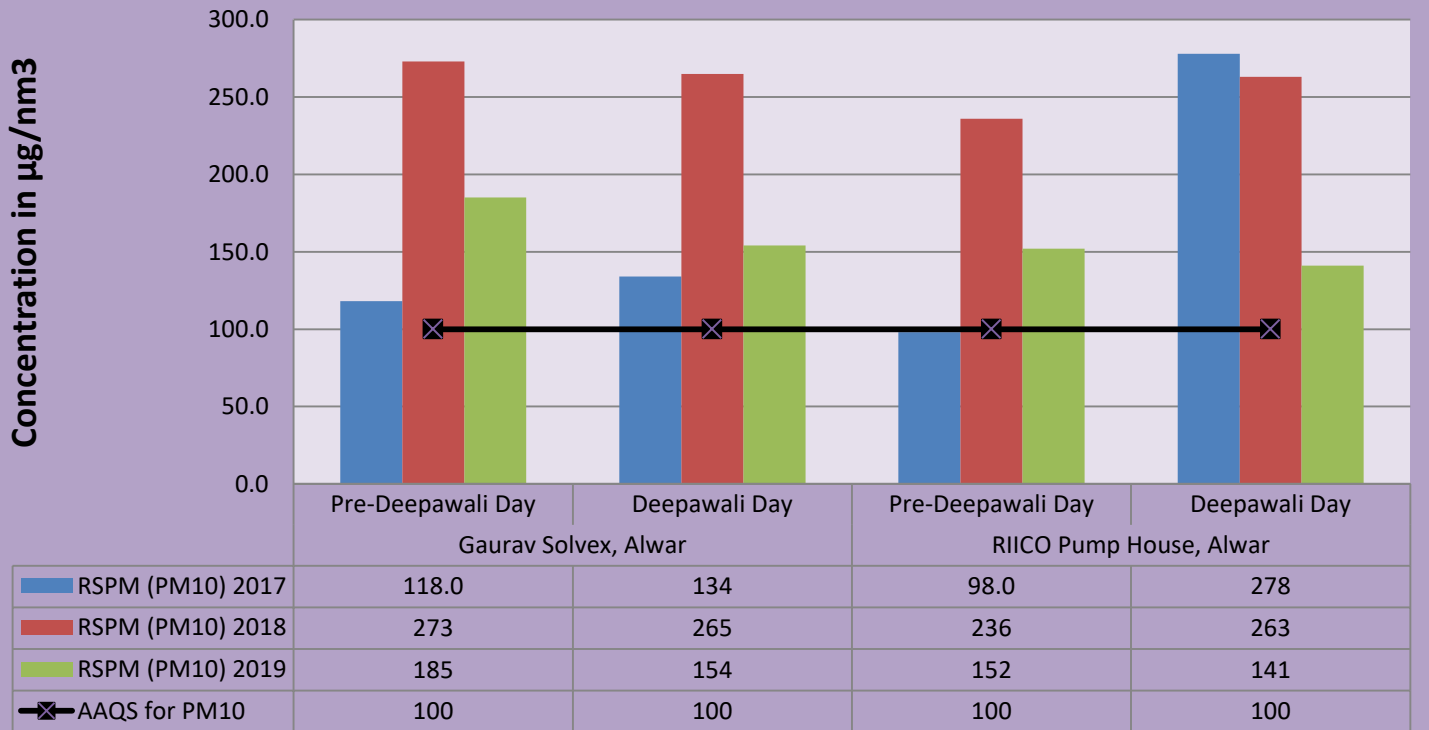
PM₁₀ in Ambient Air Quality on the occasion of Deepawali in Jaipur from 2017 to 2019



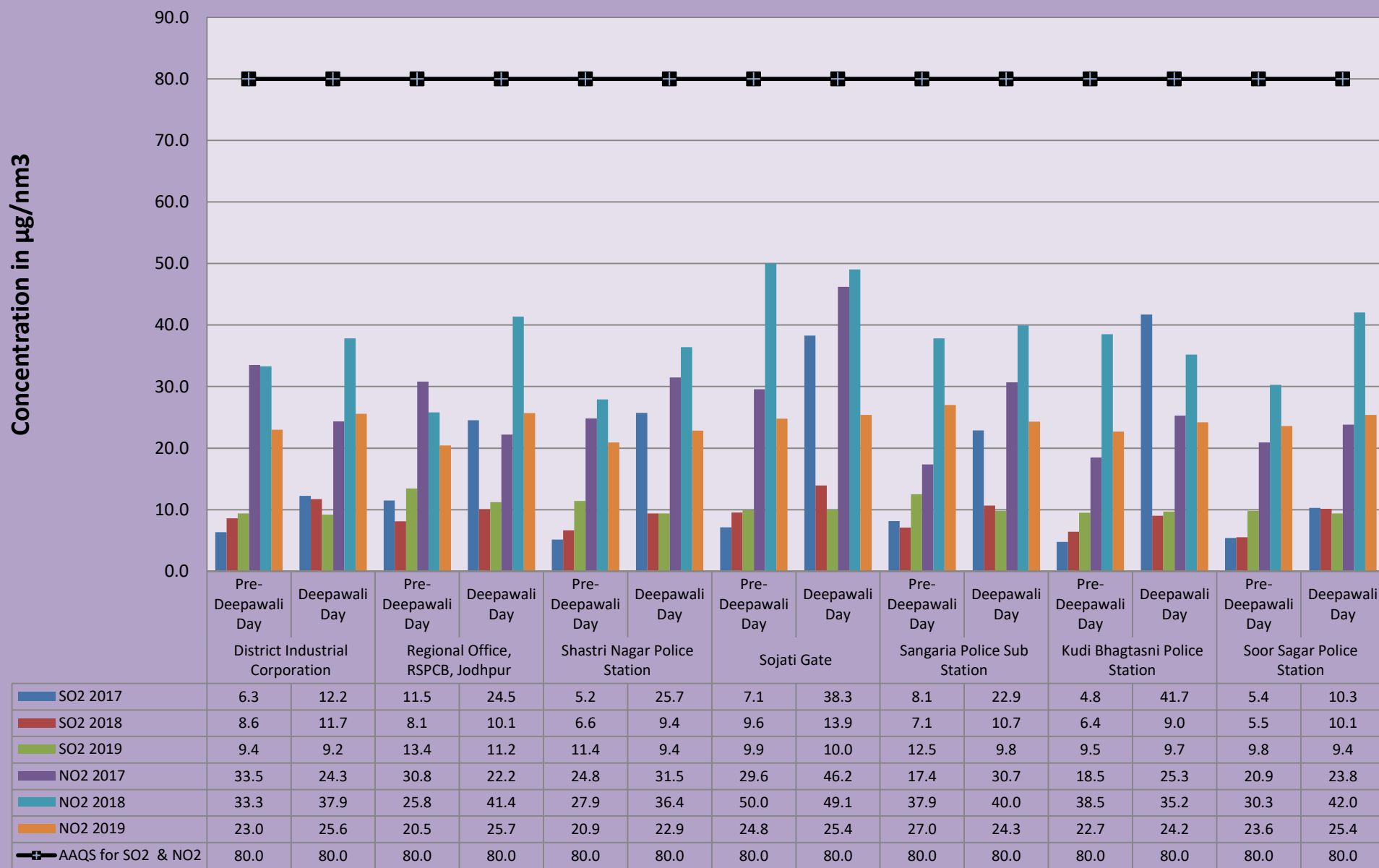
SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Alwar from 2017 to 2019



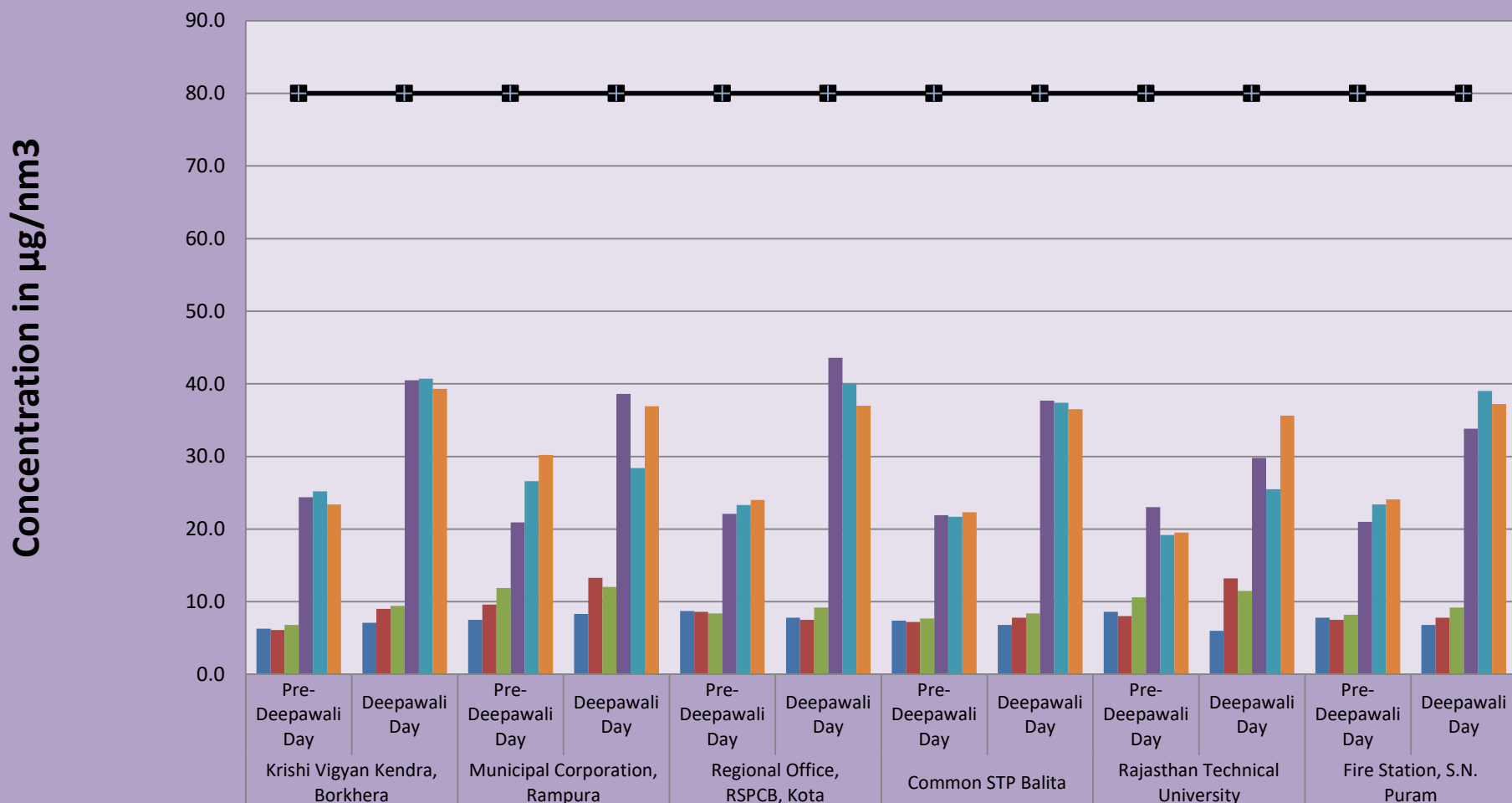
PM₁₀ in Ambient Air Quality on the occasion of Deepawali in Alwar from 2017 to 2019



SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Jodhpur from 2017 to 2019

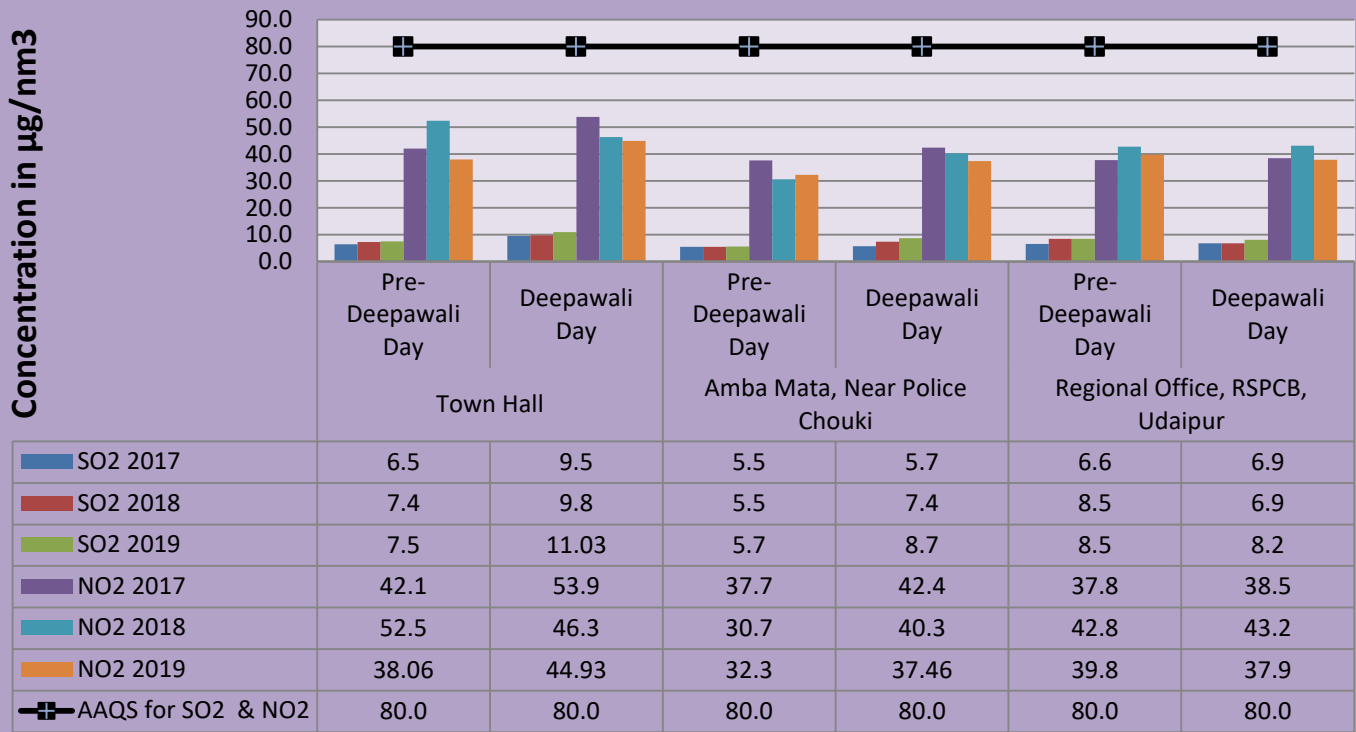


SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Kota from 2017 to 2019

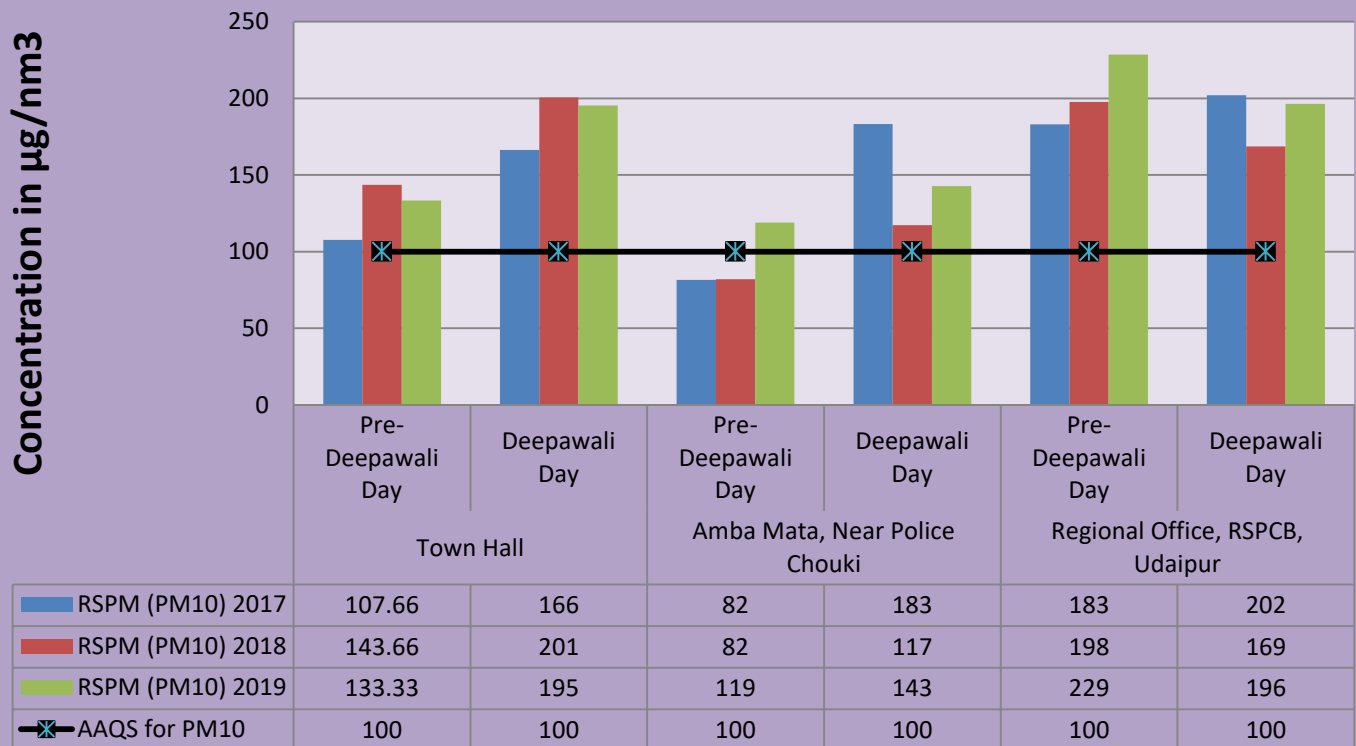


	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day
	Krishi Vigyan Kendra, Borkhera		Municipal Corporation, Rampura		Regional Office, RSPCB, Kota		Common STP Balita		Rajasthan Technical University		Fire Station, S.N. Puram	
SO ₂ 2017	6.3	7.1	7.5	8.3	8.7	7.8	7.4	6.8	8.6	6.0	7.8	6.8
SO ₂ 2018	6.1	9.0	9.6	13.3	8.6	7.5	7.2	7.8	8.0	13.2	7.5	7.8
SO ₂ 2019	6.8	9.4	11.9	12.03	8.4	9.2	7.7	8.4	10.6	11.48	8.2	9.2
NO ₂ 2017	24.4	40.5	20.9	38.6	22.1	43.6	21.9	37.7	23.0	29.8	21.0	33.8
NO ₂ 2018	25.2	40.7	26.6	28.4	23.3	40.0	21.7	37.4	19.2	25.5	23.4	39.0
NO ₂ 2019	23.4	39.3	30.2	36.9	24	37	22.3	36.5	19.5	35.62	24.1	37.2
AAQS for SO ₂ & NO ₂	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0

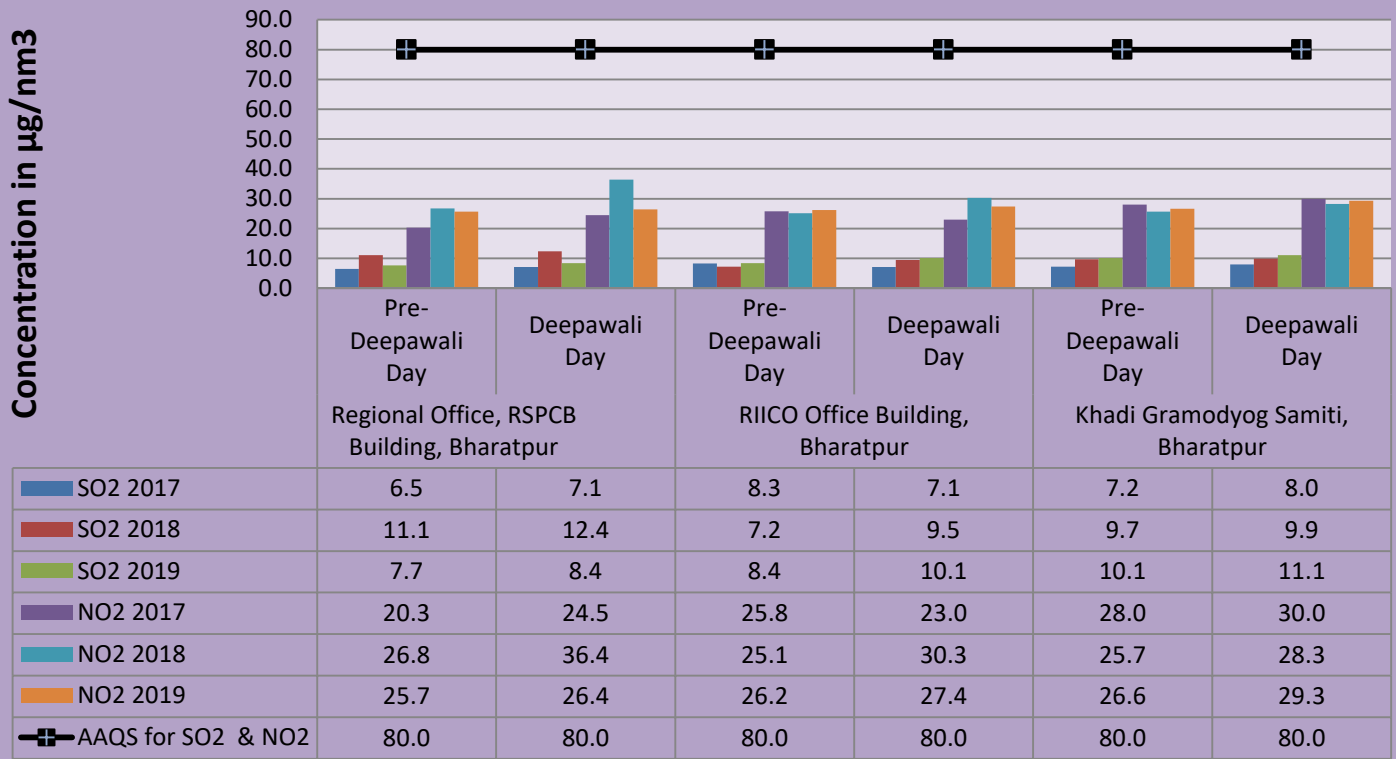
SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Udaipur from 2017 to 2019



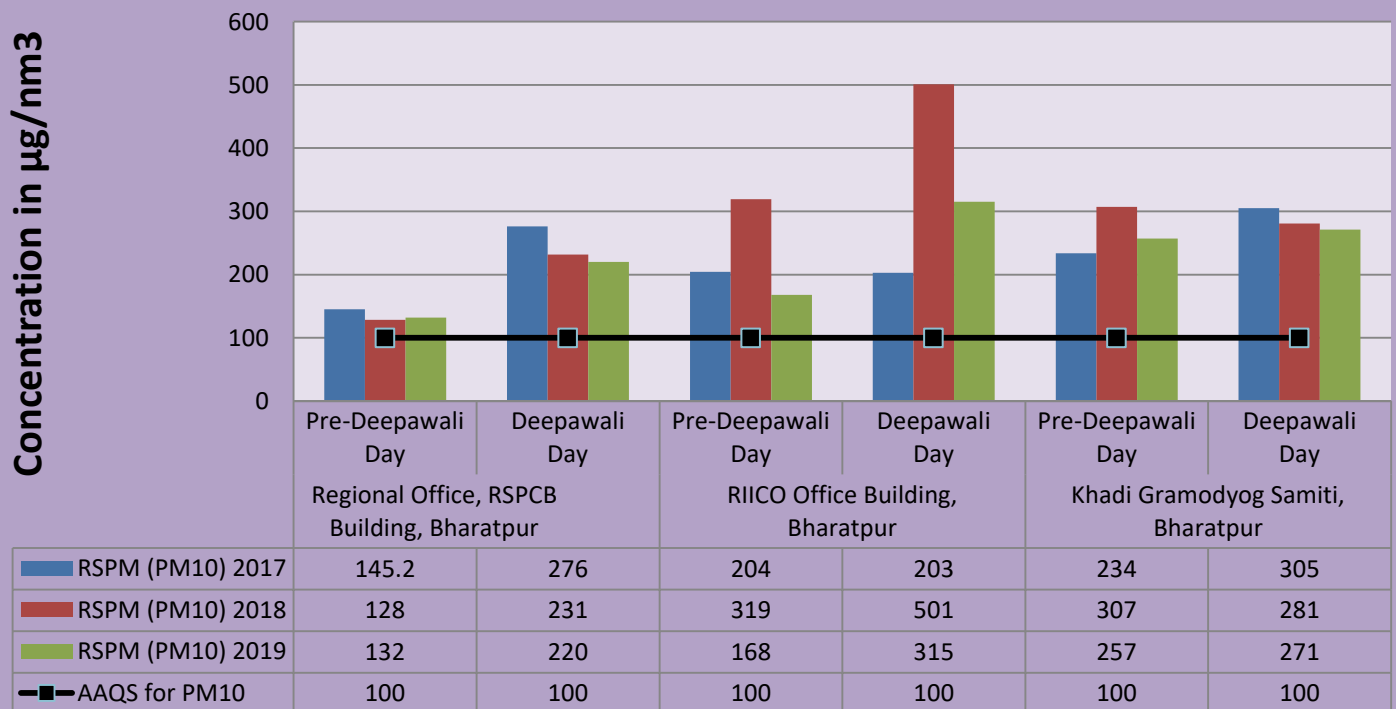
PM₁₀ in Ambient Air Quality on the occasion of Deepawali in Udaipur from 2017 to 2019



SO₂ & NO₂ in Ambient Air Quality on the occasion of Deepawali in Bharatpur from 2017 to 2019



PM₁₀ in Ambient Air Quality on the occasion of Deepawali in Bharatpur from 2017 to 2019





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CONCLUSION

- State Board has also conducted Ambient Air Quality Monitoring at 34 locations of 08 (Eight) cities of Rajasthan. On comparison of Ambient Air Quality monitoring levels of 2018 & 2019, decrease in concentration of pollutants was observed on Pre-Deepawali Day from 6:00 AM (21.10.2019) to 6:00 AM (22.10.2019) for SO₂ at 13 locations, for NO₂ at 22 locations while for PM₁₀ at 24 locations, similarly on Deepawali day from 6:00 AM (27.10.2019) to 6:00 AM (28.10.2019) decrease in level for SO₂ at 16 locations, for NO₂ at 27 locations while for PM₁₀ at 17 locations was observed.
- Monitored Ambient Air Quality levels of SO₂ and NO₂ have remained within the prescribed standards both on Pre-Deepawali and Deepawali Day, while the concentration of PM₁₀ exceeded the prescribed standards both on Pre-Deepawali and Deepawali Day except at Jhalana and MIA, Jaipur, and Rajasthan Technical University, Kota on Pre-Deepawali day.

Continuous Ambient Air Quality Monitoring Report

The State Board has established a network of **CAAQMS at ten locations**, three at Jaipur city and one each at Jodhpur, Ajmer, Alwar, Bhiwadi, Kota, Pali and Udaipur cities of the State where the State Board is monitoring ambient air quality parameters along with meteorological parameters.

Comparison of CAAQMS data of Pre-Deepawali and Deepwali day of 2018 and 2019 of the established stations of Rajasthan is as follows:

Monitoring Location: CAAQMS, Jaipur

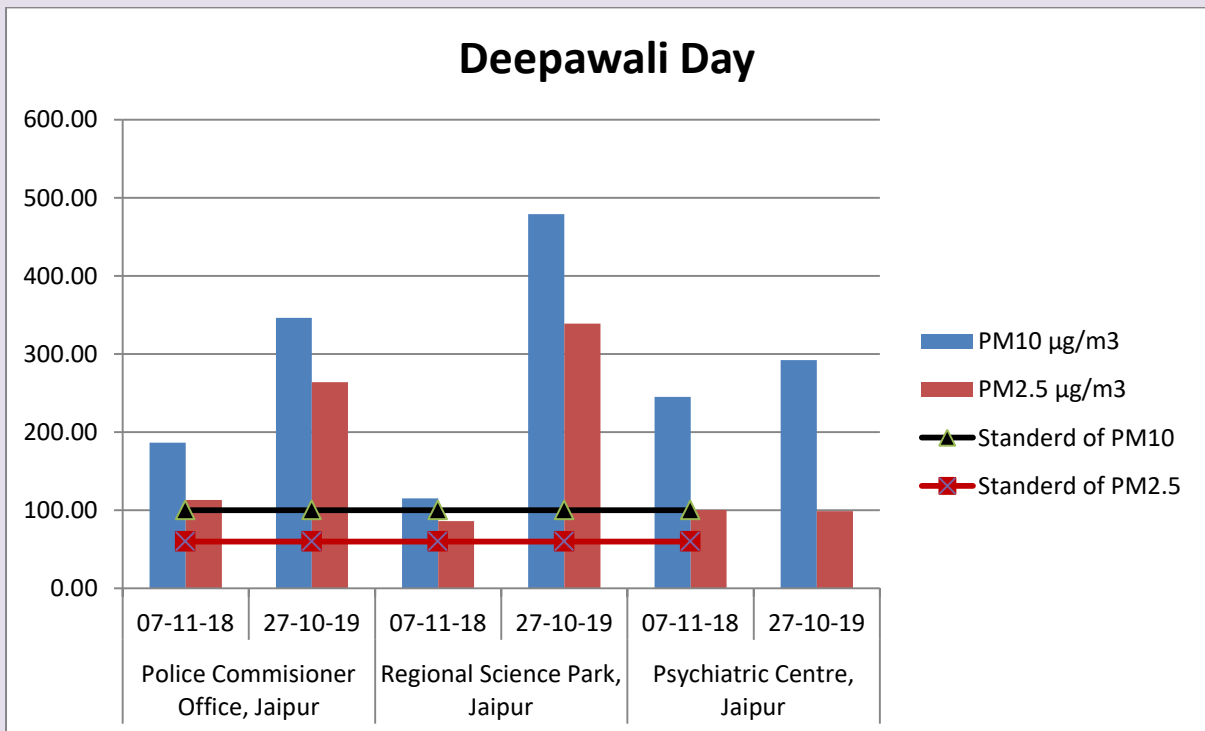
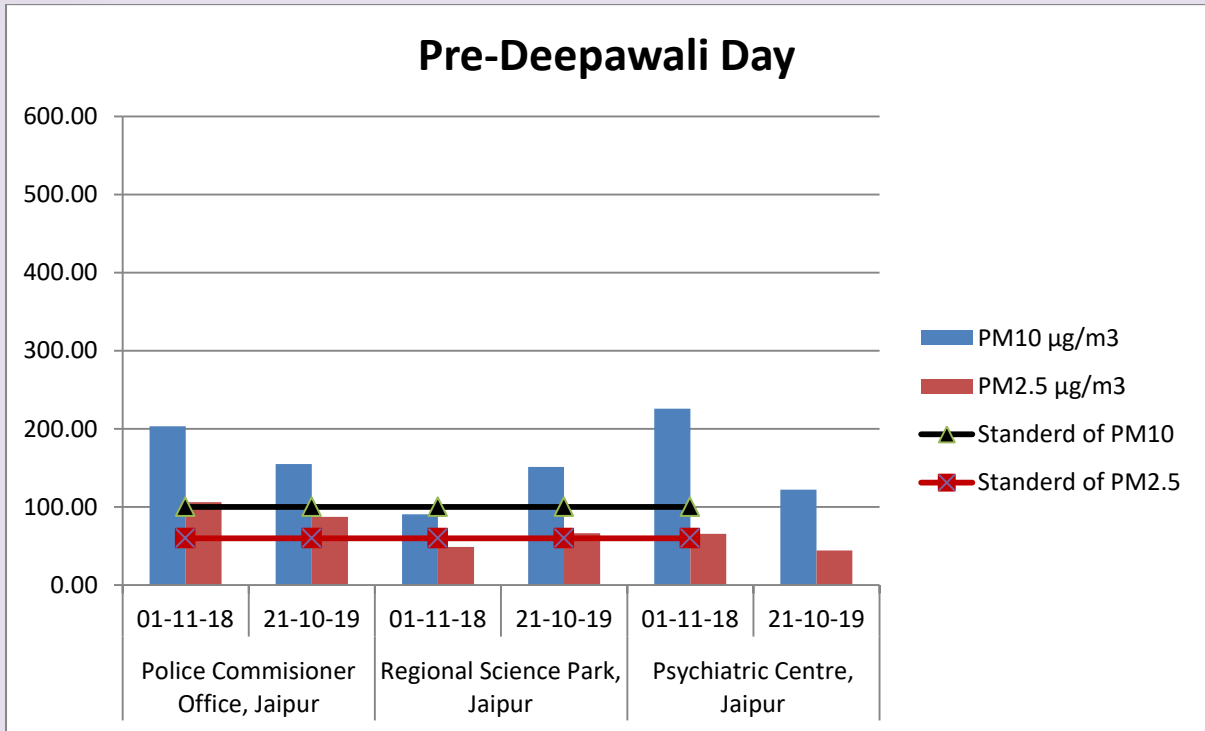
CAAQMS Station	Parameter/ Date	NO ₂	NH ₃	SO ₂	CO	O ₃	PM ₁₀	PM _{2.5}
Police Commissioner Office, Jaipur	01-11-18	50.09	15.93	9.15	1.78	36.86	203.18	105.97
	07-11-18	42.24	15.69	18.29	1.32	45.73	186.52	113.27
	21-10-19	79.41	34.92	12.89	1.46	38.11	154.69	87.29
	27-10-19	69.02	24.79	12.95	0.99	38.29	346.38	264.05
Regional Science Park, Jaipur	01-11-18	49.73	40.08	9.43	1.57	65.01	90.34	48.57
	07-11-18	25.95	6.93	21.20	1.53	26.05	115.25	85.90
	21-10-19	40.72	70.41	15.40	1.11	33.60	151.32	66.40
	27-10-19	38.63	110.09	23.81	1.75	36.44	478.95	338.77
Psychiatric Centre, Jaipur	01-11-18	68.54	19.80	6.86	1.98	55.84	225.68	65.62
	07-11-18	49.98	22.44	43.58	1.90	46.75	244.88	100.49
	21-10-19	70.82	75.40	11.55	1.38	47.13	122.04	44.06
	27-10-19	66.75	88.55	31.27	1.24	42.98	291.93	98.88
Standard (24 Hr)		80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



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Monitoring Location: CAAQMS, Jaipur

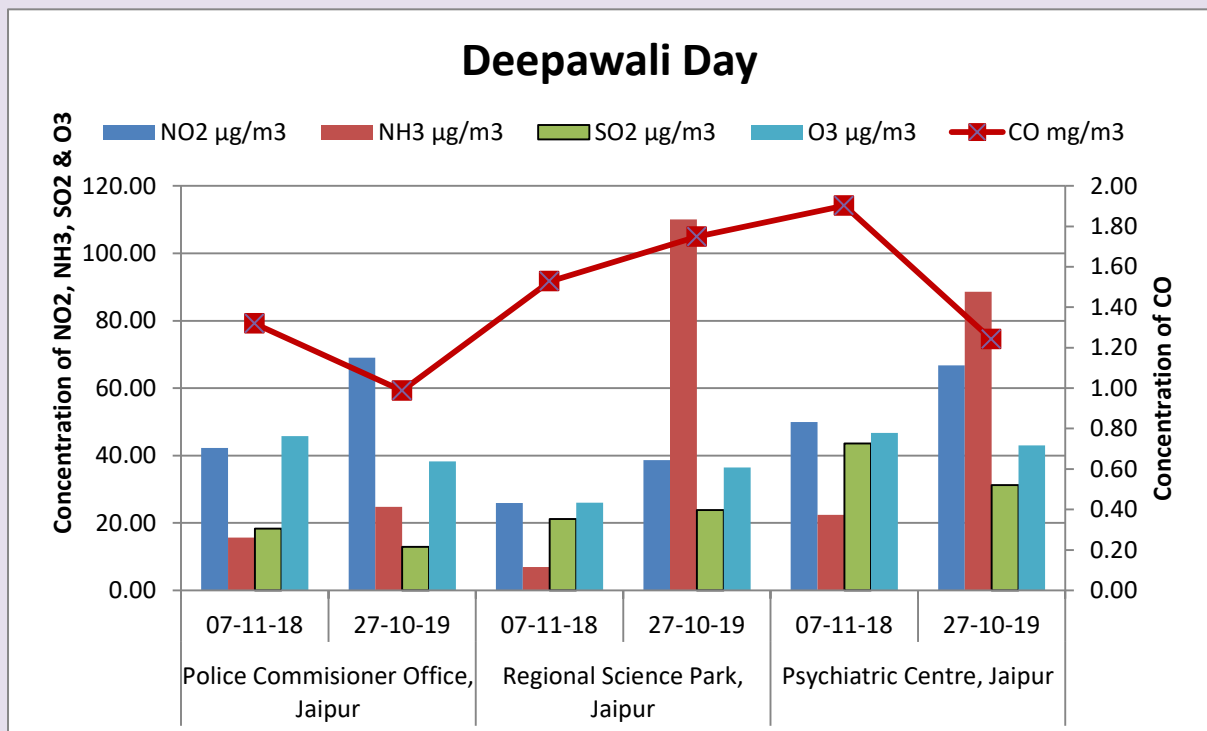
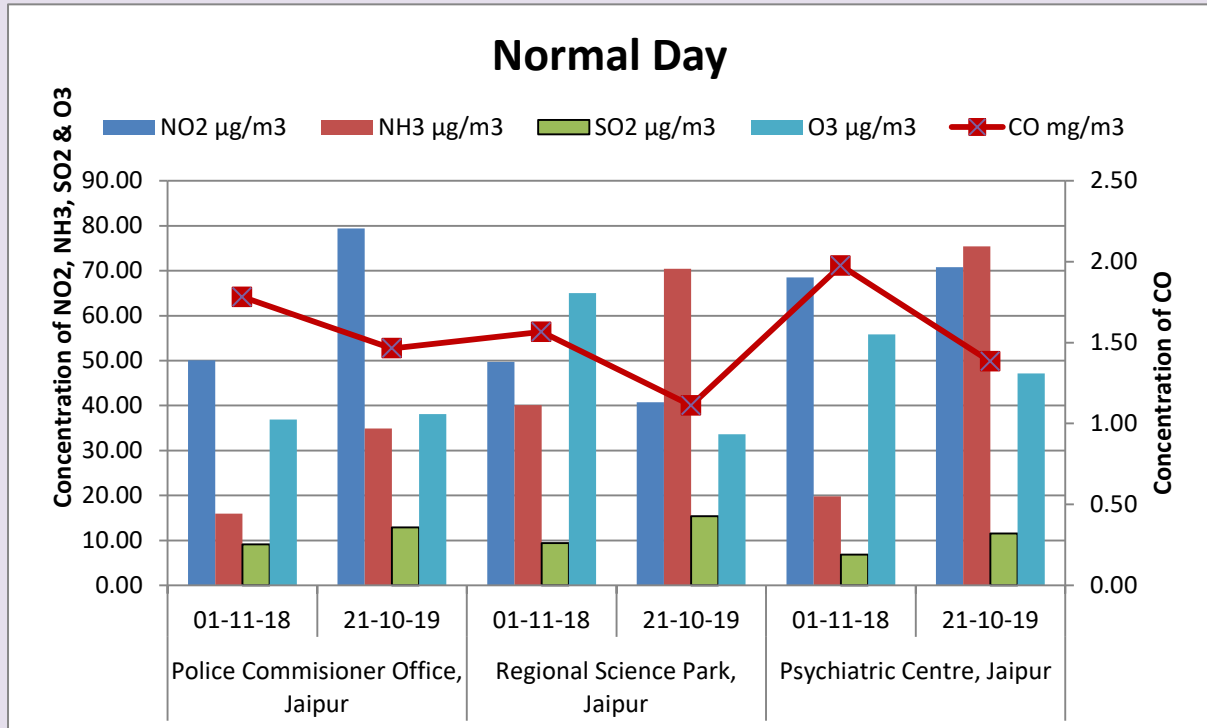




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Monitoring Location: CAAQMS, Jaipur



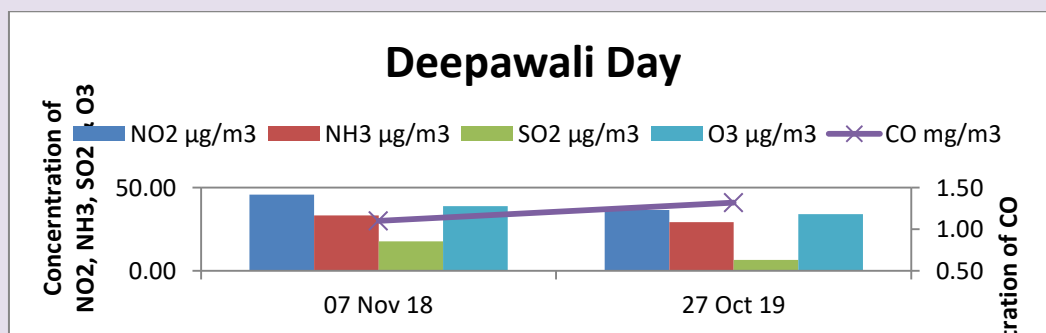
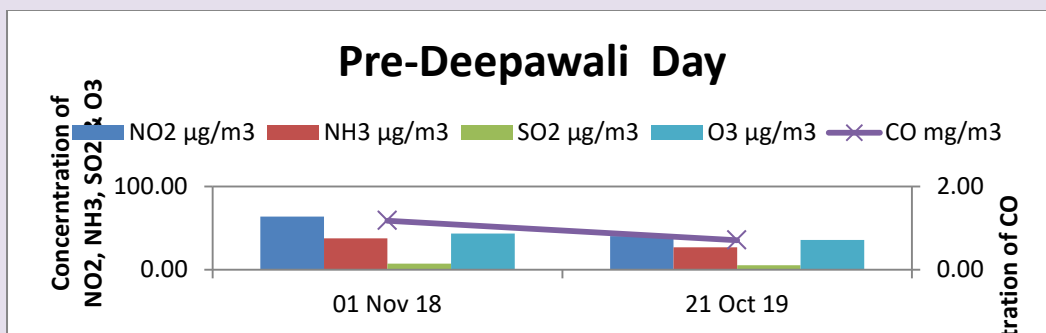
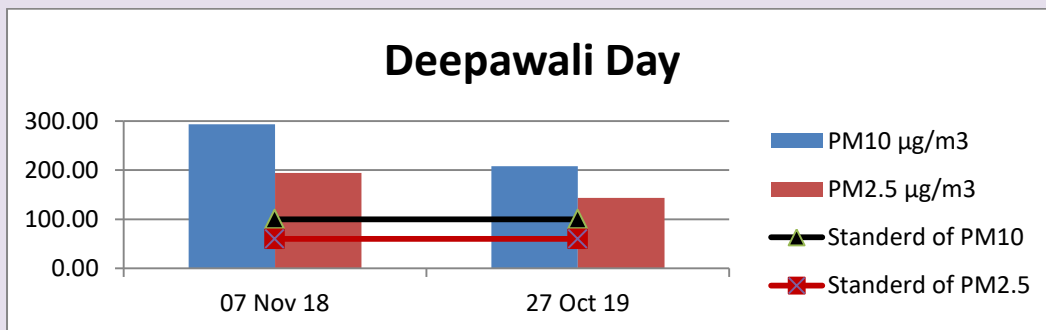
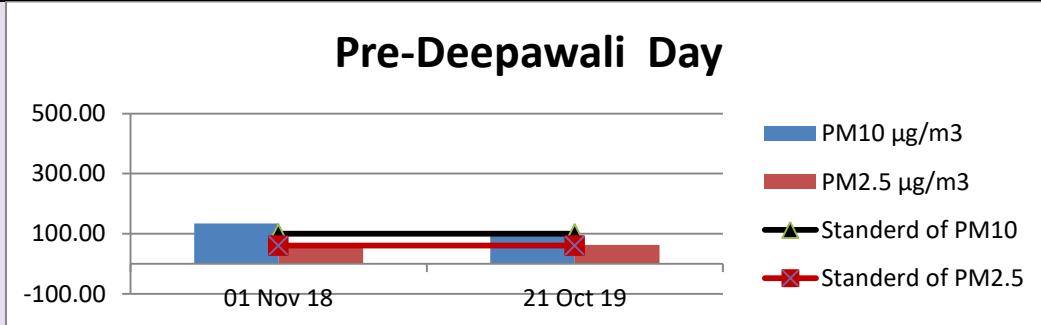


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Monitoring Location: CAAQMS, Ajmer

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	63.78	37.97	7.37	1.18	43.39	134.14	56.82
07-11-18	45.77	33.38	17.82	1.10	38.85	293.50	194.11
21-10-19	40.31	27.03	5.44	0.71	35.79	108.55	62.61
27-10-19	36.65	29.20	6.57	1.32	34.02	207.74	143.22
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



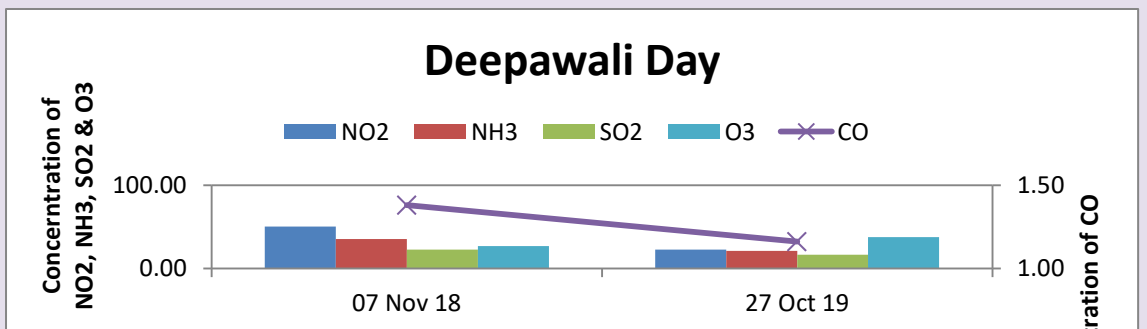
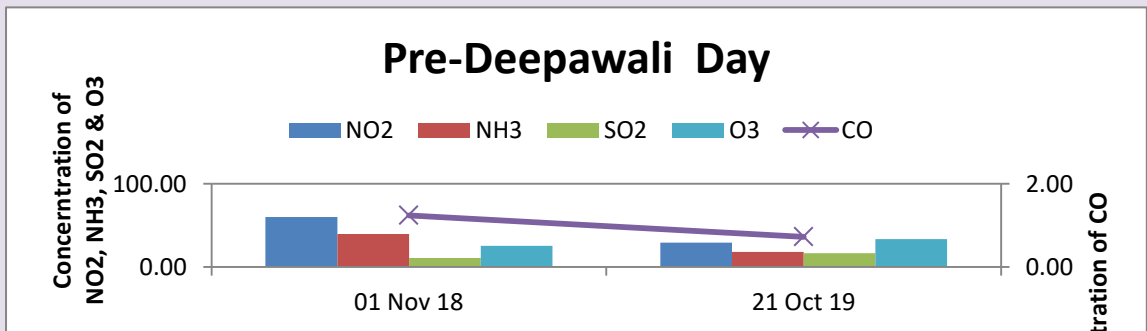
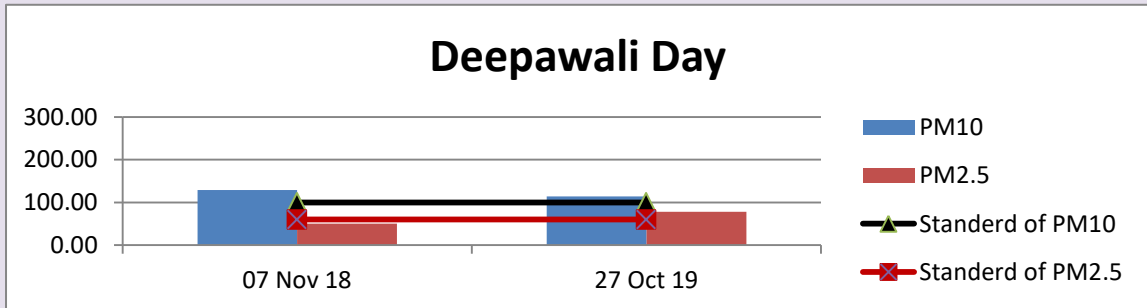
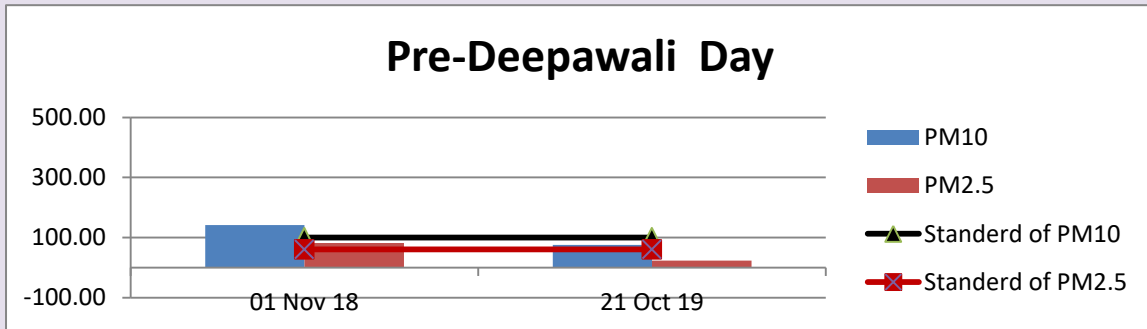


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Monitoring Location: CAAQMS, Alwar

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	60.28	39.74	10.78	1.24	25.56	141.23	81.61
07-11-18	50.67	35.54	22.68	1.38	27.13	129.26	50.39
21-10-19	29.27	18.29	16.75	0.73	33.53	75.87	23.55
27-10-19	22.68	21.36	16.75	1.16	37.91	114.30	78.13
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



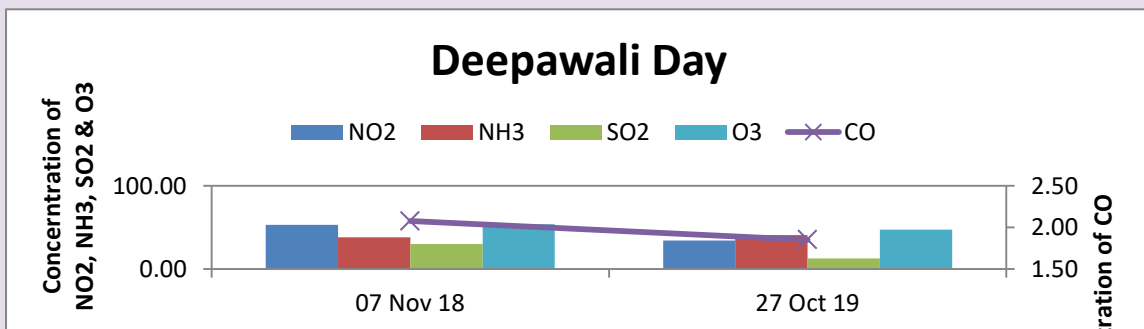
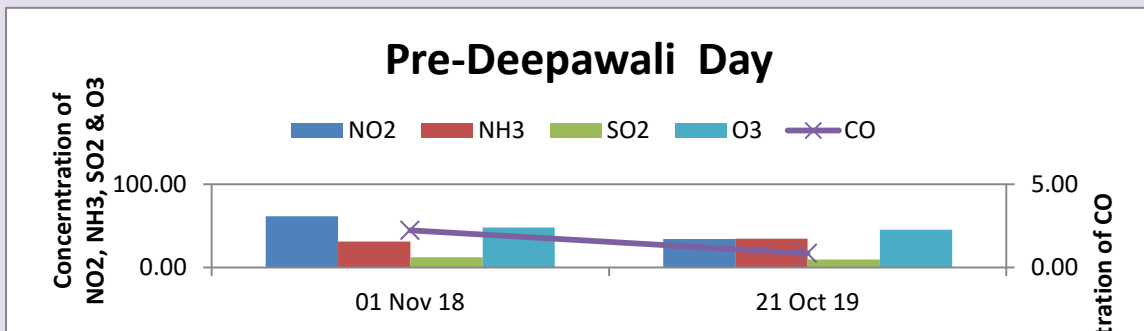
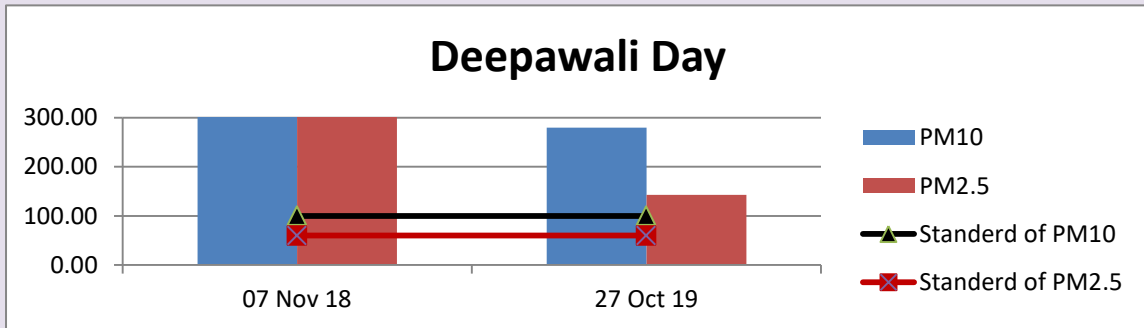
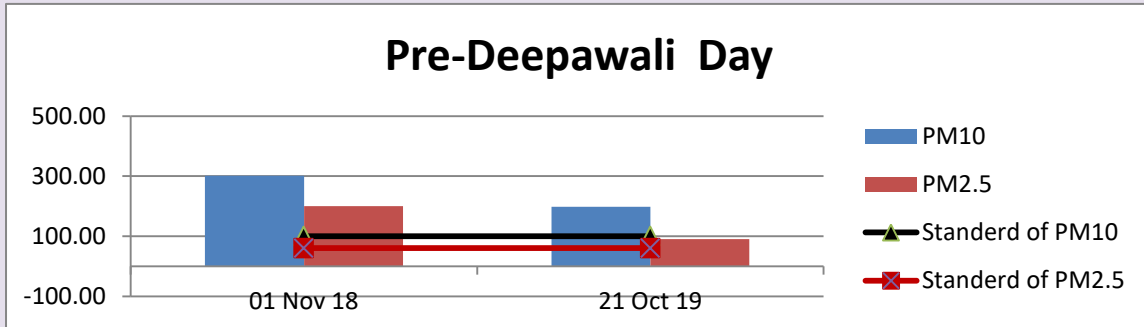


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Monitoring Location: CAAQMS, Jodhpur

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	61.53	31.39	12.49	2.24	48.11	300.83	200.61
07-11-18	53.13	38.08	29.91	2.08	53.91	450.66	306.87
21-10-19	34.33	34.76	9.63	0.84	45.31	198.10	90.41
27-10-19	34.3	40.86	12.74	1.85	47.54	279.81	142.80
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



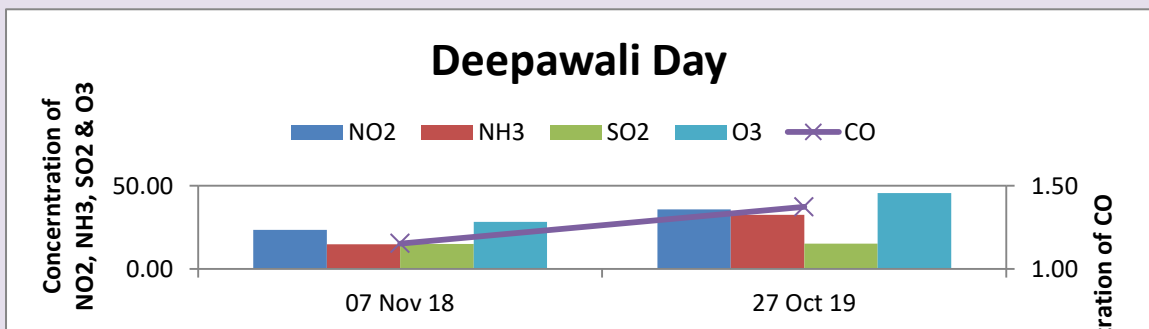
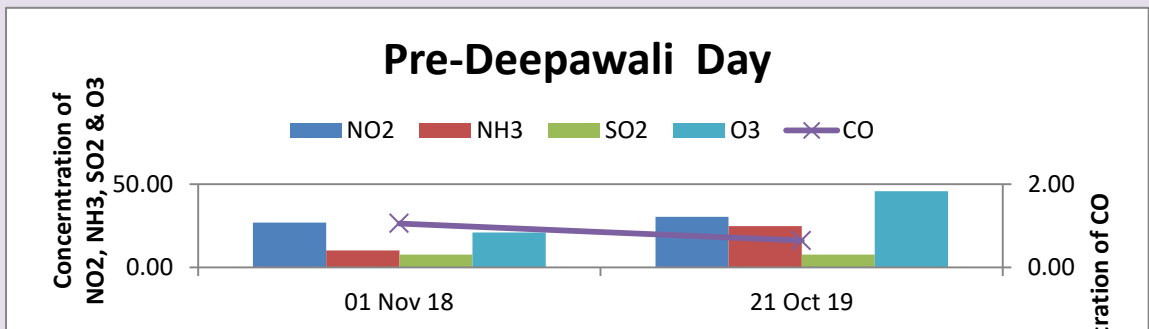
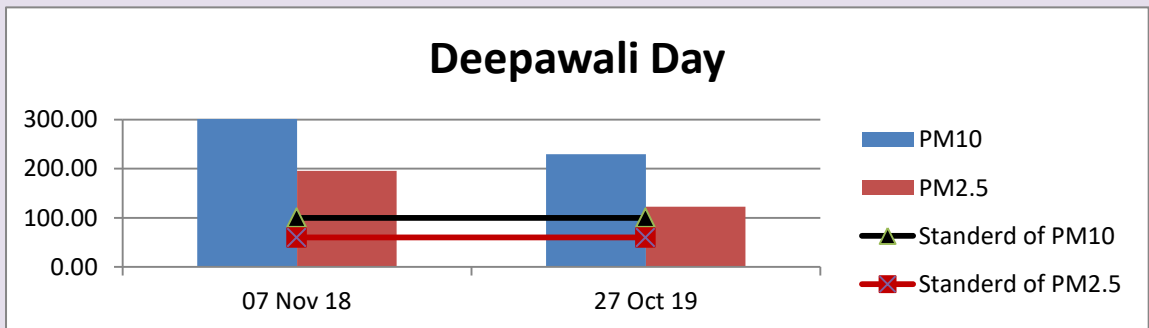
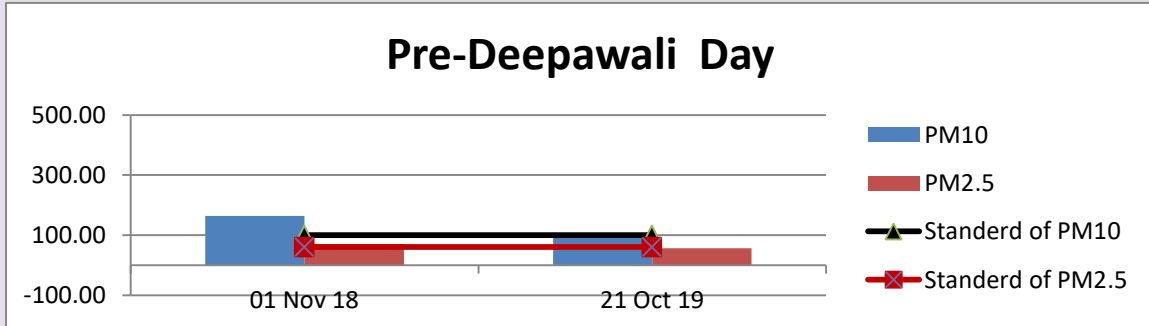


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Monitoring Location: CAAQMS, Kota

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	27.01	10.26	7.69	1.06	21.00	163.35	70.30
07-11-18	23.49	14.94	15.08	1.15	28.31	303.00	195.24
21-10-19	30.45	24.88	7.67	0.65	45.89	103.07	56.60
27-10-19	35.81	32.58	15.33	1.37	45.61	229.35	122.55
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



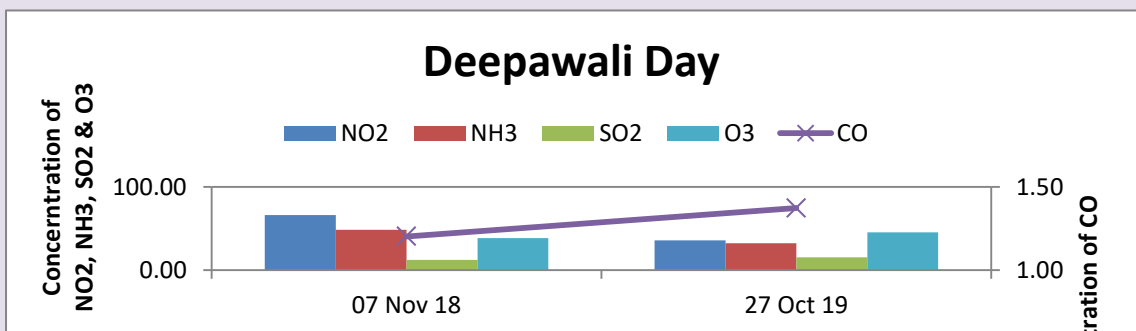
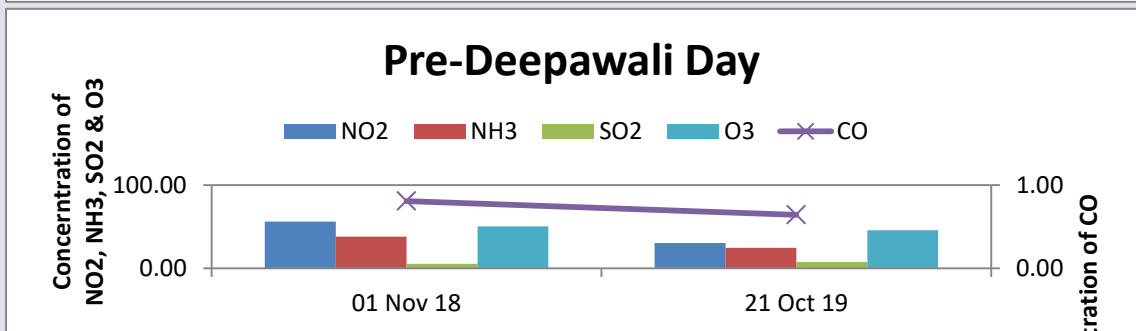
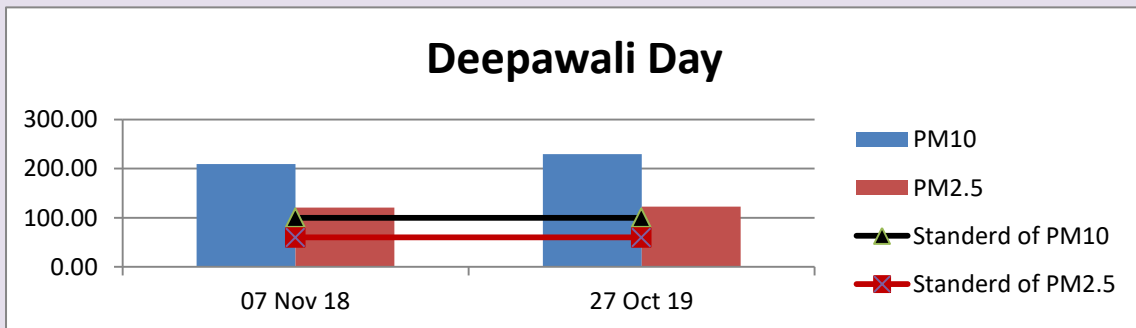
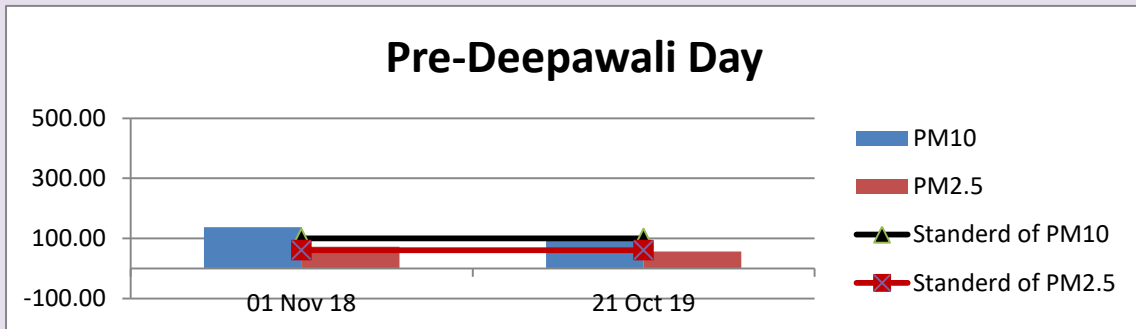


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Monitoring Location: CAAQMS, Pali

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	56.35	38.30	5.49	0.81	50.53	137.20	71.86
07-11-18	66.36	48.38	12.54	1.20	38.65	209.44	120.74
21-10-19	30.45	24.88	7.67	0.65	45.89	103.07	56.60
27-10-19	35.81	32.58	15.33	1.37	45.61	229.35	122.55
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60



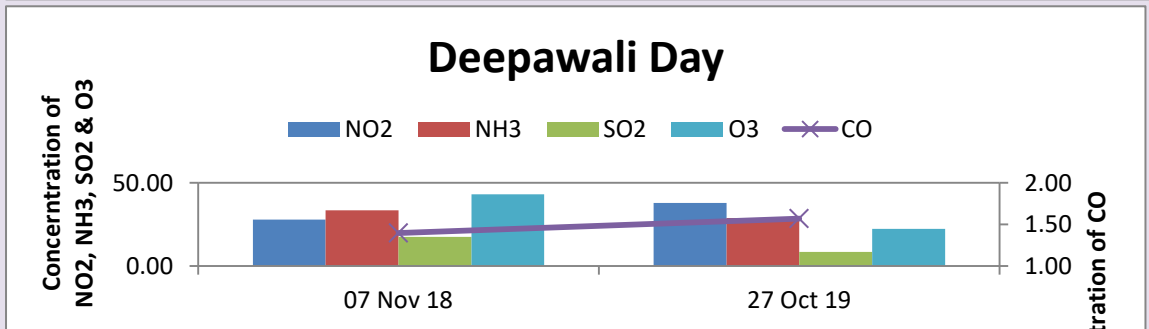
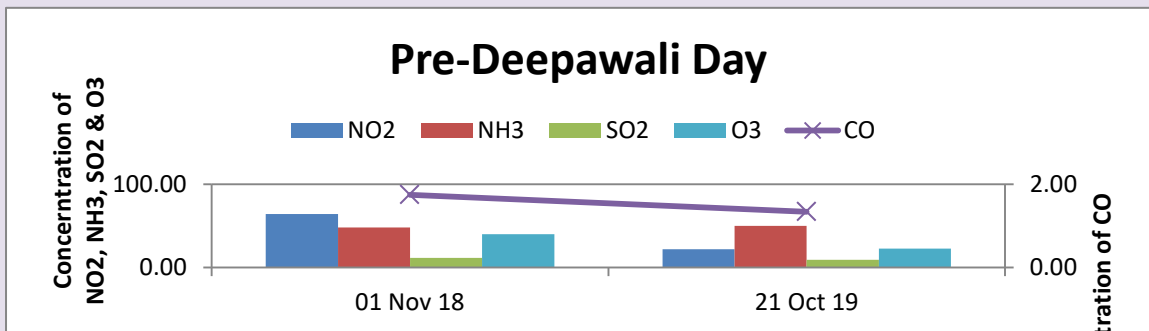
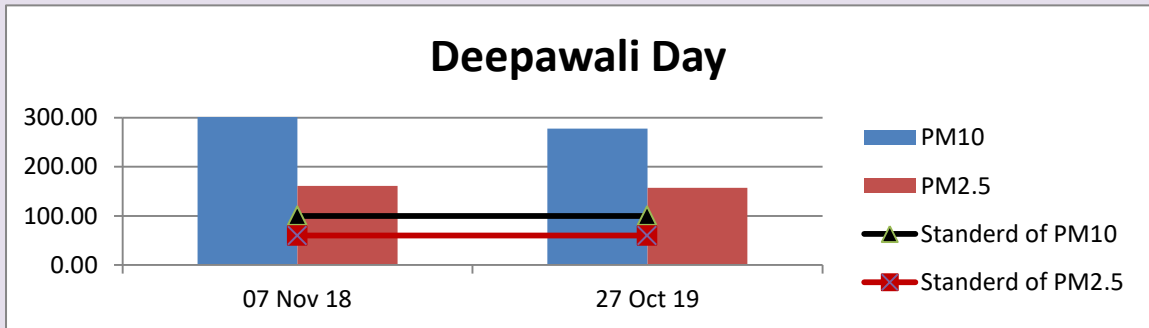
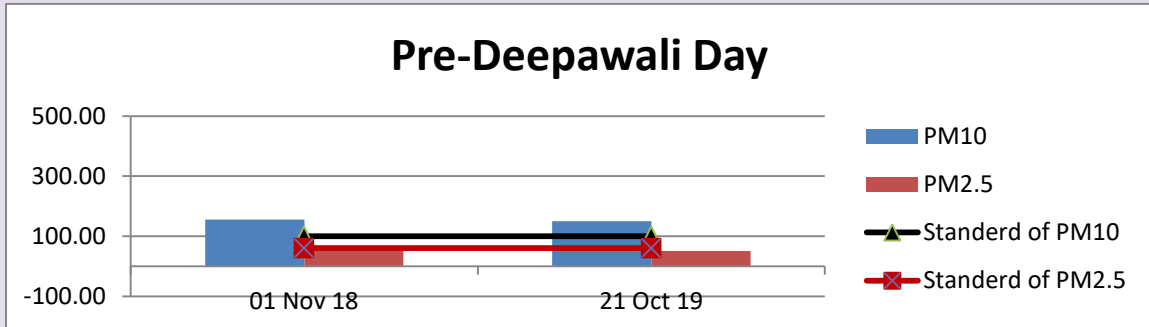


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Monitoring Location: CAAQMS, Udaipur

Parameter/ Date	NO2	NH3	SO2	CO	O3	PM10	PM2.5
01-11-18	64.42	48.07	11.74	1.75	40.20	155.60	52.40
07-11-18	27.89	33.49	17.61	1.40	43.23	326.00	161.12
21-10-19	21.94	50.08	9.43	1.34	22.89	150.08	50.62
27-10-19	38.03	28.92	8.45	1.57	22.29	277.46	157.33
Standard (24 Hr)	80	400	80	2 (8 Hr)	100 (8 Hr)	100	60





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Rajasthan State Pollution Control Board,

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Annexure A

Noise levels in Leq dB(A) 2014 - 2019 in different cities of Rajasthan on occasion of Deepawali festival in comparison to Pre-Deepawali Day

City Name	Name of Monitoring location		2014		2015		2016		2017		2018		2019	
			Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day
Jaipur	Gandhi Nagar (Residential)	Day Time	69.8	73.3	70.7	76.3	59.7	80.1	59.7	71.2	57.5	77.5	57.6 ↑	79.4 ↑
		Night Time	58.4	76.2	59.5	77.2	61.2	77.1	54.4	73.9	54.5	83.0	53.5 ↓	97.3 ↑
	Jawahar Nagar (Residential)	Day Time	63.9	67.0	56.3	80.9	60.8	89.3	68.8	74.5	63.8	65.3	63.6 ↓	75.5 ↑
		Night Time	53.2	74.9	54.2	80.9	55.6	82.8	56.2	82.5	59.9	73.6	55.5 ↓	84.3 ↑
	Raja Park (Commercial)	Day Time	76.6	83.1	75.6	80.6	67.1	75.3	68.0	73.3	77.9	82.5	64.2 ↓	80.7 ↓
		Night Time	57.9	77.5	59.4	77.9	57.0	65.6	62.8	77.4	69.6	83.7	67.9 ↓	77.1 ↓
	Mansarovar (Commercial)	Day Time	—	—	—	—	71.4	74.2	64.9	78.8	64.7	72.4	57.6 ↓	84.9 ↑
		Night Time	—	—	—	—	67.4	65.0	61.2	79.1	60.3	76.5	55.0 ↓	73.3 ↓
	SDM Hospital (Silence)	Day Time	76.7	73.7	72.1	75.5	70.2	71.8	80.8	73.2	63.8	70.7	65.8 ↑	70.2 ↓
		Night Time	65.4	72.6	65.2	73.1	64.1	73.0	70.3	84.7	59.7	70.5	61.2 ↑	74.2 ↑
	Civil Lines (Silence)	Day Time	64.3	70.1	63.3	68.6	63.1	68.7	65.7	71.9	69.5	59.0	67.7 ↓	70.1 ↑
		Night Time	62.4	73.7	59.7	66.4	59.7	66.1	69.7	77.7	63.1	59.4	62.7 ↓	71.3 ↑
Ajmer	Kutchery Road, Ajmer (Residential)	Day Time	—	—	—	—	62.2	73.0	63.6	75.4	77.2	79.2	74.7 ↓	72.2 ↓
		Night Time	—	—	—	—	56.9	72.3	59.5	75.7	71.2	76.0	65.0 ↓	76.4 ↑
Bhilwara	Near C-209, Azad Nagar, Bhilwara (Residential)	Day Time	—	—	—	—	—	—	67.0	84.4	56.4	69.1	70.5 ↑	88.5 ↑
		Night Time	—	—	—	—	—	—	64.8	89.8	50.4	66.9	69.9 ↑	93.0 ↑
	Near Kumbha Circle, Azad Nagar, Bhilwara (Commercial)	Day Time	—	—	—	—	69.4	75.6	67.3	83.8	78.6	77.3	65.6 ↓	73.4 ↓
		Night Time	—	—	—	—	57.8	70.0	62.2	83.6	66.6	76.7	67.6 ↑	78.7 ↑
Pali	Maharaja Shree Umed Mills, Pali (Residential)	Day Time	65.4	80.0	51.6	67.5	71.6	90.0	63.9	74.4	62.4	68.7	92.1 ↑	68.8 ↑
		Night Time	52.8	76.6	55.7	62.2	53.5	93.7	56.2	81.6	61.8	66.2	65.5 ↑	64.6 ↓
	Surajpol, Near Townhall, Pali (Commercial)	Day Time	—	—	—	—	69.7	74.3	69.7	88.4	65.5	68.9	95.1 ↑	70.0 ↑
		Night Time	—	—	—	—	58.8	60.4	64.1	70.3	71.6	68.6	67.2 ↓	64.7 ↓
	Govt. Bangur Hospital, Pali (Silence)	Day Time	—	—	—	—	63.8	75.6	48.7	66.6	51.9	67.3	65.3 ↑	67.4 ↑
		Night Time	—	—	—	—	53.4	70.5	45.8	54.4	50.1	64.6	62.6 ↑	68.5 ↑
Bikaner	Junagarh, Bikaner (Commercial)	Day Time	78.8	76.2	74.8	78.9	75.6	77.5	74.6	78.4	70.7	76.2	71.6 ↑	77.3 ↑
		Night Time	71.6	76.7	73.6	82.0	68.8	81.1	68.3	85.4	69.4	79.8	68.9 ↓	80.9 ↑
Jodhpur	Manamandir, Jodhpur (Residential cum Commercial)	Day Time	73.4	77.7	64.8	90.4	70.4	79.7	73.6	78.2	66.7	80.4	64.8 ↓	77.3 ↓
		Night Time	72.1	77.4	59.1	76.5	62.6	86.8	61.4	82.1	66.7	82.9	61.4 ↓	80.5 ↓
	Police Station, Jodhpur (Residential cum Commercial)	Day Time	64.0	71.4	69.1	76.4	65.0	87.4	69.4	71.0	65.7	81.7	65.5 ↓	76.7 ↓
		Night Time	66.4	73.7	64.1	75.7	65.4	83.6	58.2	75.0	62.2	76.3	60.2 ↓	85.1 ↑

Kota	M.B.S. Hospital, Kota (Silence)	Day Time	53.3	64.1	70.8	73.1	61.4	62.8	66.3	64.5	68.7	63.6	67.7 ↓	74.0 ↑
		Night Time	51.1	60.4	44.8	55.4	61.0	67.0	69.8	65.8	73.4	60.4	71.3 ↓	75.2 ↑
	Dadawada (Residential)	Day Time	60.9	65.2	—	—	47.9	31.5	57.4	67.7	54.8	69.9	57.6 ↑	64.7 ↓
		Night Time	54.9	64.7	—	—	50.7	34.5	45.4	72.0	63.5	69.8	50.6 ↓	68.9 ↓
	Gumanpura (Commercial)	Day Time	—	—	—	—	67.1	86.8	67.2	79.3	68.5	82.5	71.1 ↑	80.2 ↓
		Night Time	—	—	—	—	63.0	82.8	64.3	75.5	63.5	82.0	65.9 ↑	89.4 ↑
Udaipur	Near Suraj Pole Gate, Udaipur (Commercial)	Day Time	66.9	82.6	76.9	80.1	75.1	87.0	77.8	87.9	80.7	72.0	77.7 ↓	83.2 ↑
		Night Time	68.4	86.8	72.7	77.3	64.0	85.9	73.3	83.5	76.2	83.2	65.9 ↓	83.5 ↑
	M.B. Hospital, Udaipur (Silence)	Day Time	60.5	64.0	58.2	67.0	63.6	73.9	69.7	78.5	70.2	69.2	69.2 ↓	69.7 ↑
		Night Time	52.9	67.8	58.7	75.1	65.3	65.0	68.1	67.9	58.6	64.3	61.2 ↑	67.6 ↑
	Amba Mata Scheme, Udaipur (Residential)	Day Time	67.2	74.0	63.4	71.9	72.4	72.6	66.6	72.1	77.3	76.6	67.6 ↓	78.9 ↑
		Night Time	68.0	83.0	63.5	90.5	71.3	79.0	59.1	75.0	61.8	72.0	70.7 ↑	77.9 ↑
Alwar	Kala Kuan, Alwar (Residential)	Day Time	67.3	80.8	63.6	76.1	59.4	76.9	66.2	79.9	65.5	76.3	65.7 ↑	85.3 ↑
		Night Time	47.2	84.2	55.7	75.3	51.4	71.1	53.3	66.0	53.0	46.9	55.1 ↑	94.8 ↑
	General Hospital, Alwar (Silence)	Day Time	—	—	—	—	62.2	79.2	57.6	76.3	61.0	67.9	61.1 ↑	72.6 ↑
		Night Time	—	—	—	—	54.2	65.7	55.6	69.6	58.3	67.6	60.3 ↑	48.9 ↓
	Ashiana Garden Society, Bhiwadi (Residential)	Day Time	—	—	—	—	—	—	58.2	81.1	57.8	81.8	63.5 ↑	79.4 ↓
		Night Time	—	—	—	—	—	—	49.8	73.5	55.5	82.2	48.6 ↓	58.4 ↓
Star Hospital, Bhiwadi (Silent)	Day Time	—	—	—	—	—	—	71.4	78.2	63.2	75.9	61.0 ↓	73.6 ↓	
	Night Time	—	—	—	—	—	—	68.3	69.3	57.6	68.8	54.8 ↓	69.2 ↑	
Sikar	Shivsinghpura Housing Board, Nawalgarh Road, Sikar (Residential)	Day Time	—	—	—	—	59.8	69.7	62.6	68.6	58.9	72.3	60.2 ↑	72.7 ↑
		Night Time	—	—	—	—	54.0	61.5	50.9	61.5	47.3	66.0	56.6 ↑	66.5 ↑
Chittorgarh	Public Park, Chittorgarh (Commercial)	Day Time	—	—	—	—	70.2	76.9	66.5	75.7	66.3	78.2	63.4 ↓	76.1 ↓
		Night Time	—	—	—	—	64.7	80.5	62.9	79.2	68.6	83.8	60.6 ↓	79.3 ↓
	Near Home Guard Office, Kumbha Nagar, Chittorgarh (Residential)	Day Time	—	—	—	—	73.9	79.1	67.3	84.6	67.9	79.0	61.4 ↓	79.4 ↑
		Night Time	—	—	—	—	55.1	82.2	61.6	82.1	58.1	87.9	56.6 ↓	82.0 ↓
Bharatpur	Regional Office, RSPCB, Bharatpur (Residential)	Day Time	—	—	—	—	—	—	—	—	65.3	69.9	61.6 ↓	71.0 ↑
		Night Time	—	—	—	—	—	—	—	—	62.5	71.3	57.8 ↓	69.5 ↓
Balotra	Maneshwar Bhawan, Near IInd Railway Crossing, Balotra	Day Time	—	—	—	—	—	—	56.5	72.8	62.3	74.4	60.6 ↓	73.9 ↓
		Night Time	—	—	—	—	—	—	42.0	53.4	46.2	61.5	53.1 ↑	78.8 ↑

STANDARD LIMITS in dB(A) Leq*		
Category of Area / Zone	DAY	NIGHT
COMMERCIAL	65	55
RESIDENTIAL	55	45
SILENCE	50	40

