

## Sikkim- Noise Pollution

Source: *State Pollution Control Board, Sikkim*

### NOISE LEVEL DURING DEEPAWALI FESTIVAL AROUND GANGTOK TOWN (DEORALI BAZAAR), EAST SIKKIM, OCTOBER 2016.

- **Description of monitoring site: Commercial area**
- **Activities around the monitoring location/sources of noise pollution: Major Taxi Stand is located near the monitoring site.**

#### DATA/OBSERVATION

**Table 1. Location - (Commercial area– Deorali Bazaar, East Sikkim)**

LOCATION: Forest Secretariat	NORMAL DAY (24.10.2016)			DEEPAWALI DAY (30.10.2016)			National Standard
	Time Duration	Lmin	Lmax	Leq dB (A)	Lmin	Lmax	
18:00 to 19:00 Hr	48.5 dB	74.6 dB	59.2 dB	29.9 dB	92.8 dB	62.7 dB	<b>65 dB</b>
19:00 to 20:00 Hr	52.6 dB	78.7 dB	62.6 dB	33.2 dB	85.3 dB	54.4 dB	
20:00 to 21:00 Hr	54.2 dB	80.5 dB	63.4 dB	32.5 dB	88.5 dB	56.2 dB	
21:00 to 22:00 Hr	45.5 dB	68.3 dB	52.4 dB	31.3 dB	86.7 dB	52.1 dB	
22:00 to 23:00 Hr	35.5 dB	57.2 dB	43.3 dB	29.4 dB	78.4 dB	39.5 dB	
23:00 to 24:00 Hr	30.4 dB	46.5 dB	37.4 dB	28.3 dB	84.8 dB	62.9 dB	

**Note: Noise monitoring was carried out at one location only due to availability of only one functional noise meter.**

#### **INFERENCE:**

The State Pollution Control Board-Sikkim had carried out monitoring of noise pollution during Deepwali 2016 as per the direction and guidelines received from Central Pollution Control Board. The monitoring report shows that all the Leq. values for noise pollution were found to be within the permissible limit. Certain data with little increase in the value were due to traffic movement on the festive day.

The Government of Sikkim during December 2014 had brought out a notification banning manufacture, sale, use and bursting of firecrackers in the whole state of Sikkim. Prior to the festive occasion the SPCB-Sikkim had brought out appeal in the local electronic and print media and had carried out mass awareness on the ill effect of firecrackers. Further, the order of the Hon'ble Supreme Court was also circulated to all the agencies for their cooperation in control of pollution during Deepwali 2016. Also, social media was actively involved in discouraging use of firecrackers during Deepwali 2016.

The cumulative effort of the people of Sikkim with the Government laid to a high level of success in making the festival noise free.

**STATE POLLUTION CONTROL BOARD-SIKKIM**

**Ambient Air Quality Monitoring during Deepawali festival, 2016:**

**Data/Observation:**

<b>Ambient Air Quality during Deepawali, 2016</b>						
<b>Monitoring Location</b>	<b>Parameters monitored</b>					
	<b>Normal Day</b>			<b>Deepawali Day</b>		
	<b>SO<sub>2</sub></b>	<b>NO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>2</sub></b>	<b>PM<sub>10</sub></b>
<b>Rangpo</b>	2.23	5.51	54.62	4.21	0.91	64.46
<b>Singtam</b>	BDL	BDL	32.3	6.2	BDL	42.5
<b>Mangan</b>	2.05	1.1	40.1	BDL	BDL	19.58
<b>Pelling</b>	1.7	4.2	10.5	2.6	0.7	14.6
<b>Chungthang</b>	BDL	BDL	36.3	BDL	BDL	14.6
<b>Ravangla</b>	2.0	BDL	20.52	2.5	BDL	16.3
<b>Namchi</b>	0.66	0.39	22.71	2.7	BDL	30.48
<b>NAAQ Standards</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>80</b>	<b>80</b>	<b>100</b>
<b>*All values (24 hourly Avg.) are in µg/m<sup>3</sup></b>						

**Note: All the parameters falls within the prescribed national standards.**

**NOISE LEVEL DURING DEEPAWALI FESTIVAL IN AND AROUND GANGTOK TOWN, NOVEMBER 2015.**

**DATA/OBSERVATION**

**Table 1. Location A- (Residential – Development Area, Gangtok)**

<b>LOCATION A</b>	<b>NORMAL DAY (5.11.15)</b>			<b>DEEPAWALI DAY (11.11.15)</b>			<b>National Standard</b>
Time Duration	Lmin	Lmax	Leq dB (A)	Lmin	Lmax	Leq dB (A)	<b>55 dB</b>
18:00 to 19:00 Hr	38.5 dB	50.7 dB	44.6 dB	40.7 dB	57.6 dB	49.2 dB	
19:00 to 20:00 Hr	35.6 dB	52.5 dB	44.5 dB	39.3 dB	54.3 dB	46.2 dB	
20:00 to 21:00 Hr	37.9 dB	54.7 dB	45.7 dB	38.5 dB	57.4 dB	47.8 dB	
21:00 to 22:00 Hr	41.5 dB	58.2 dB	49.3 dB	44.2 dB	65.2 dB	50.3 dB	
22:00 to 23:00 Hr	36.6 dB	52.5 dB	43.8 dB	34.5 dB	53.4 dB	45.5 dB	
23:00 to 24:00 Hr	27.2 dB	48.3 dB	38.5 dB	28.2 dB	49.5 dB	39.3 dB	

**Table 2. Location B - (Commercial – Mahatma Gandhi Marg, Gangtok)**

<b>LOCATION B</b>	<b>NORMAL DAY (5.11.15)</b>			<b>DEEPAWALI DAY (11.11.15)</b>			<b>National Standard</b>
Time Duration	Lmin	Lmax	Leq dB (A)	Lmin	Lmax	Leq dB (A)	<b>65 dB</b>
18:00 to 19:00 Hr	45.2 dB	72.5 dB	58.7 dB	48.5 dB	74.6 dB	59.2 dB	
19:00 to 20:00 Hr	47.5 dB	73.4 dB	58.9 dB	52.6 dB	78.7 dB	62.6 dB	
20:00 to 21:00 Hr	48.4 dB	73.9 dB	59.1 dB	54.2 dB	80.5 dB	63.4 dB	
21:00 to 22:00 Hr	42.5 dB	60.2 dB	49.2 dB	45.5 dB	68.3 dB	52.4 dB	
22:00 to 23:00 Hr	34.4 dB	58.3 dB	46.4 dB	35.5 dB	57.2 dB	43.3 dB	
23:00 to 24:00 Hr	32.7 dB	45.4 dB	38.3 dB	30.4 dB	46.5 dB	37.4 dB	

**Table 3. Location C - (Silence – White Hall Complex, Gangtok)**

<b>LOCATION C</b>	<b>NORMAL DAY (5.11.15)</b>			<b>DEEPAWALI DAY (11.11.15)</b>			<b>National Standard</b>
Time Duration	Lmin	Lmax	Leq dB (A)	Lmin	Lmax	Leq dB (A)	<b>50 dB</b>
18:00 to 19:00 Hr	29.5 dB	50.7 dB	40.6 dB	27.4 dB	50.2 dB	38.6 dB	
19:00 to 20:00 Hr	27.5 dB	48.6 dB	39.5 dB	30.4 dB	48.4 dB	37.3 dB	
20:00 to 21:00 Hr	28.9 dB	44.8 dB	38.7 dB	28.8 dB	46.5 dB	35.6 dB	
21:00 to 22:00 Hr	27.5 dB	42.2 dB	35.3 dB	28.2 dB	42.2 dB	33.9 dB	
22:00 to 23:00 Hr	27.6 dB	40.8 dB	32.8 dB	24.8 dB	40.7 dB	31.8 dB	
23:00 to 24:00 Hr	26.2 dB	38.3 dB	31.5 dB	24.1 dB	39.5 dB	30.7 dB	

## **Inference:**

The State Pollution Control Board-Sikkim had carried out monitoring of noise pollution during Deepawali 2015 as per the direction and guidelines received from Central Pollution Control Board. The monitoring report shows that barring a few places all the other areas that were monitored for noise pollution were found to be within the permissible limit. Certain data with little increase in the value were due to high traffic movement on the festive day.

The Government of Sikkim during December 2014 had brought out a notification banning manufacture, sale, use and bursting of firecrackers in the whole state of Sikkim. Prior to the festive occasion the SPCB-Sikkim had brought out appeal in the local electronic and print media and had carried out mass awareness on the ill effect of firecrackers. Further, the order of the Hon'ble Supreme Court was also circulated to all the agencies for their cooperation in control of pollution during deepawali 2015. Also, social media was actively involved in discouraging use of firecrackers during deepawali 2015.

The cumulative effort of the people of Sikkim with the Government laid to a high level of success in making the festival noise free.

**NOISE POLLUTION MONITORING DAY BEFORE DEEPAWALI DURING  
OCTOBER 2014 IN AND AROUND GANGTOK TOWN. (22.10.14)**

**Table.1.**

<b>SL. NO.</b>	<b>LOCATION</b>	<b>PERIOD</b>	<b>Leq. dB (A)</b>	<b>L min.</b>	<b>L max.</b>	<b>National Standard</b>
1.	M.G. Marg (commercial area)	Day time	74.9 dB	40.5 dB	103.7 dB	75 dB
2.	Lall Bazar (commercial area)	Day time	76.3 dB	47.5 dB	108.8 dB	75 dB
3.	Hospital area (silence zone)	Day time	63.4 dB	38.4 dB	93.1 dB	50 dB
4.	Development area (Residential area)	Day time	61.1 dB	48.1 dB	93.2 dB	55 dB

**Note: Day time – 6.00 am to 10.00 pm.**

The noise levels of all the monitoring points were found exceeding the prescribed national standards day before Deepawali October 2014.

**NOISE POLLUTION MONITORING ON DEEPAWALI DURING OCTOBER 2014  
IN AND AROUND GANGTOK TOWN. (23.10.14)**

**Table.2.**

<b>SL. NO.</b>	<b>LOCATION</b>	<b>PERIOD</b>	<b>Leq. dB (A)</b>	<b>L min.</b>	<b>L max.</b>	<b>National Standard</b>
1.	M.G. Marg (commercial area)	Day time	76.0 dB	45.8 dB	121.9 dB	75 dB
2.	Lall Bazar (commercial area)	Day time	76.3 dB	47.5 dB	108.8 dB	75 dB
3.	Hospital area (silence zone)	Day time	63.0 dB	48.1 dB	93.1 dB	50 dB
4.	Development area (Residential area)	Day time	64.1 dB	38.4 dB	95.2 dB	55 dB

**Note: Day time – 6.00 am to 10.00 pm.**

The noise levels of all the monitoring points were found exceeding the prescribed national standards during Deepawali October 2014.