



**REPORT
ON
AMBIENT NOISE
MONITORING DURING
GANESH FESTIVAL - 2013**



MAHARASHTRA POLLUTION CONTROL BOARD

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FOREWORD

Ganesh Festival is one of the main festivals in Maharashtra. Large number of people participates in the immersion procession culminating the 10 days festival. Vocal music and musical instruments during the festival often lead to high levels of noise. In general, ambient levels of noise pollution increase considerably during this period. Since, last few years Maharashtra Pollution control Board is monitoring ambient noise levels in Ganesh Festival period,

This report is based on the extensive noise monitoring study conducted by Maharashtra Pollution Control Board at 89 locations all over Maharashtra for 5 days of the festival, i.e. on 9th, 10th, 13th, 15th and 18th September 2013 from 18.00 hrs. to 24.00 hrs, except on 9th Sept. monitoring was done during 6hrs to 12 hrs, continuously -for 6 hours for each location, comprising residential, commercial and silence zones.

This report also contains the methodology and observations made during the study. The noise levels were found to be exceeding the permissible limits in all cities and at almost all locations. However, there is a considerable decrease in the noise levels recorded at Mumbai, Kalyan, Nagpur and Satara to previous years.

The data and the trends in variation in noise levels in different Metropolitan cities can help the authorities including police authorities and Municipal bodies to develop strategies and plan for the next year. The report is being placed on MPCB website for wider dissemination of information and for public awareness.

Field monitoring of this study was conducted by M/s.Ashwamedh Engineers and Consultants C S Ltd; Nashik and was supported by all Regional Offices of the Board in the field. The entire study work including planning, coordination and report preparation was done at APC division of the Board. The contributions of Shri V.M.Motghare and Shri S.C.Kollur are appreciated.

(Rajeev Kumar Mital, IAS)
Member Secretary

October, 2013

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Abbreviations

CPCB Central Pollution Control Board

dB Decibel

dB(A) Decibels with "A" weighting

EPA Environmental Protection Act, 1986

Hz Hertz

MPCB Maharashtra Pollution Control Board

KHz Kilo Hertz

L_{Aeq} Equivalent continuous A-weighted sound pressure level (dB)

L_{max} Maximum sound pressure level (dB)

L_{min} Minimum sound pressure level (dB)

SPL Sound Pressure Level

1. Introduction

Ganesh Chaturthi or "Vinayak Chaturthi" is one of the major traditional festivals celebrated by the Hindu community. Ganesh Chaturthi is celebrated on the birthday of Lord Ganesh (Ganesha), the god of wisdom and prosperity on the fourth day of the moon's bright fortnight, or period from new moon in the lunar month of Bhadrapada. The celebration of Ganesh Chaturthi continues for five, seven, or ten days. Started by Chatrapati Shivaji Maharaja, the great Maratha ruler, to promote culture and nationalism, the festival was revived by Lokmanya Tilak (a freedom fighter) to spread the message of freedom struggle and to defy the British who had banned public assemblies. The festival gave the Indians a feeling of unity and revived their patriotic spirit and faith. This public festival formed the background for political leaders who delivered speeches to inspire people against the Western rule. The festival is so popular that the preparations begin months in advance. The Chaturthi is the last day dedicated to the lord Ganesh, and thousands of processions converge on the beaches to immerse the idols in the sea/waterbody. This immersion is accompanied by drum-beats, devotional songs; as a result, ambient noise levels increase considerably.

In order to assess the ambient noise levels in the environment during Ganesh festival period, Maharashtra Pollution Control Board (MPCB) has taken initiative to carry out the survey at 85 locations all over Maharashtra for 5 days period during Ganesh Festival i.e. on 9th, 10th, 13th, 15th and 18th September 2013 from 18:00 hrs to 24:00 hrs continuously for 6 hours for each location which comprise of residential, commercial and silence zone.

1.1 Noise and its adverse effect

Noise, by definition, is unwanted sound. Noise pollution can be defined as unwanted or offensive sounds that unreasonably intrude into our daily activities (EPA, 1974). Sound becomes undesirable when it disturbs the normal activities such as working, sleeping and conversations. The major adverse effects of noise on human beings and environment are:

- ❖ Long exposure to high sound levels may cause noise-induced hearing loss.
- ❖ Noise pollution can damage physiological and psychological health.
- ❖ It can cause annoyance and aggression.
- ❖ Hypertension, high stress levels, tinnitus and other harmful effects occur due to the same.
- ❖ High noise level can contribute to cardiovascular effect, rise in blood pressure, and even become an incidence of coronary artery disease.
- ❖ Animals are also susceptible to noise pollution as well. It damages the nervous system of the animals.

1.2 Units of Sound

Sound is usually made up of a wide range of different frequencies. The spread of sound energy across the audible frequency "spectrum" (about 20Hz – 20kHz) is one factor that helps to make it identifiable to the human ear. The human ear is a very sensitive system with an extensive dynamic range. To accommodate this very large range, sound levels are measured using the **decibel (dB) scale**.

A sound level meter theoretically has a flat response, in other words it responds exactly the same at different frequencies. Unlike a sound level meter, the human ear responds differently at different frequencies, so a weighting, or filter, can be used so that the meter responds more like the human ear. The most commonly used weighting is referred to as the 'A' weighting and readings are usually measured in dBA. The **"sound pressure level"** (SPL) is twenty times the logarithm to the base 10 of the ratio of the effective

pressure (p) of a sound to the reference pressure (Pr) of 20 µPa. Thus the sound pressure level in dB = 20 log₁₀ P/Pr.

1.3 Noise Pollution: Standards

The sound level limits specified by CPCB, represent the general limitation on noise produced by noise sources. Some noises, however, are annoying no matter where or in what kind of environment they exist. High level impulsive noises represent a special category and, consequently, are restricted by an absolute limitation.

The Central Pollution Control Board (CPCB) constituted a National Committee of Experts on Noise Pollution Control. The Committee recommended noise standards for ambient air and for automobiles, domestic appliances and construction equipment, which were later notified under The Environment (Protection) Act, 1986 as given below:

Table 1.1: Standards of Noise Levels under EPA (1986): Noise Pollution (Regulation & Control) Rules, 2000

Area Code	Category of Area	Limits in dB(A) L _{eq}	
		Day time	Night time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note:

1. Day time is reckoned from 6 A.M. To 10 P.M.
2. Night time is reckoned in from 10 P.M. and 6 A.M.
3. Silence zone is referred as areas within 100 meters around premises such as hospitals, educational institutions and courts. The Silence zones are to be declared by the Competent Authority.
4. Use of vehicular horns, loudspeakers and bursting of crackers shall be banned in these zones.
5. Mixed categories of areas should be declared as one of the four above mentioned categories by the Competent Authority and the corresponding standards shall apply.
6. State GR / Notification: Implementation Authority for Noise Rules in Maharashtra is enclosed at **Annexure-I**.

2. Objective

- To monitor the ambient noise levels for five days from 18:00hrs to 24:00 hrs at various locations in major cities of Maharashtra during the Ganesh festival.
- To determine the trends and variations of noise levels at various areas of the city in different land uses.
- To create awareness about noise pollution through availability of scientific noise level data.

3. Methodology of the survey

The noise pollution monitoring was carried out on 9th, 10th, 13th, 15th and 18th September 2013. Noise level measurement was done from 18:00 hrs up to 24:00 hrs. The noise measurements were made at the fast response mode keeping in view the quickly

changing nature of noise levels, using 'A' filter. All the measurements were done using recalibrated Sound Level Meters (Type II).

The monitoring was carried out at a distance from Ganesh Pandals, closer to the residential buildings. The main purpose of this exercise was to determine how the environment is disturbed and what effect it has on a normal human being residing in that area or closer to the area. Total 89 locations were covered under 12 major cities of Maharashtra for the present study. The 12 cities covered are:

Table 3.1: Noise Monitoring Locations in Maharashtra during Ganesh Festival: 2013.

Sr. No.	City	Number of locations
1	Mumbai	25
2	Navi Mumbai	05
3	Thane	09
4	Pune	20
5	Nashik	05
6	Aurangabad	05
7	Nagpur	05
8	Kalyan	03
9	Amravati	03
10	Jalgaon	03
11	Kolhapur	03
12	Satara	03
TOTAL		89

The detailed list of locations is given in **Annexure II**.

3.1 Noise Level Measurements

In most cases, the sound and noise we hear are not steady. Apart from variation in tones, the magnitude or the sound pressure level of a sound or noise changes with time. The equivalent continuous noise level (L_{eq}) is the sound pressure level of a steady sound that has, over a given period, the same energy as a fluctuating sound in question. It was calculated using following equation:

$$L_{eq,T} = 10 \log \left(1/n \sum_{i=1}^n 10^{\frac{L_i}{10}} \right)$$

Where, L_i = levels observed at n equally spaced times during interval T.

In the present study, hourly and day wise L_{eq} has been calculated to compare the results obtained from various locations.

4. Results

The study shows that the noise levels at almost all the locations crosses the standards (limits) mentioned in EPA (1986) and overall noise level increased at 5th day of monitoring i.e. at 18th September, because of the last day (11th day) of the festival. On this day, the idols of Lord Ganesh is taken through the streets in a procession accompanied with musical instruments, Dhols, DJs and Bands to be immersed in a river or the sea symbolizing a ritual known as *Ganesh Visarjan*.

All the results are shown in L_{eq} dB(A) values. Table 4.1 shows the average maximum and minimum noise levels on each day of September 9th, 10th, 13th, 15th and 18th at all 89 locations. The following results are interpreted at different locations:

- Among all the 25 locations in Mumbai, Bandra and Mulund location was found to have maximum noise level.
- In Navi Mumbai, Airoli was found to have maximum noise level.
- In Thane, among the 9 locations, higher noise levels were observed at Wagle Estate.
- In Pune, Laxmi Road was found to be noisier as compared to other locations.
- From results it is interpreted that in Nashik, Nashik road was found to have maximum noise level.
- In Aurangabad district, City Chowk was observed as to have maximum noise level.
- Golibar Chowk was having maximum noise level in Nagpur.
- Results show that Shivaji Chowk of Kalyan was very noisy and crossing even 100 dBA.
- Among the 3 locations of Amravati, Bhudwara was observed to have maximum noise level.
- In Jalgaon district, Shastri tower chowk was found to have maximum noise level all through the five days.
- In Kolhapur district, Khas Baug Maidan was observed to have maximum noise level.
- In Satara, Powai Naka was found to have maximum noise level.

Table 4.1: Equivalent Continuous (Leq) dBA, Minimum (Lmin) and Maximum (Lmax) Noise Levels on 9th, 10th, 13th, 15th and 18th Sept., 2013 during Ganesh Festival at different locations in Maharashtra.

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
MUMBAI															
Andheri	69.1	49.3	62.0	85.6	78.8	82.2	79.1	73.2	76.8	75.6	65.0	70.9	70.4	64.3	67.4
Bandra	81.2	69.5	74.8	87.4	80.4	85.3	81.9	71.5	76.9	97.5	64.7	89.5	80.0	63.1	70.8
Bhandup	59.5	51.7	56.6	86.3	73.8	82.1	84.2	80.0	82.3	89.3	67.4	75.7	69.7	42.7	55.6
Borivali	81.4	54.3	73.7	84.9	67.0	78.4	77.1	62.2	70.4	74.6	64.5	68.8	83.6	70.9	76.4
Byculla	82.5	59.3	68.9	82.5	58.5	73.3	73.5	69.0	71.0	71.8	62.1	66.4	71.8	63.4	67.5
Chembur (E)	89.1	58.9	78.9	92.8	65.3	80.1	82.8	70.5	78.8	85.0	63.8	71.4	95.5	65.3	73.9
Chembur (W)	80.4	65.3	74.8	92.3	72.7	79.2	81.2	72.4	75.6	88.2	60.1	67.0	70.7	60.3	63.9
Chinchpokali (E)	84.7	58.3	72.7	95.0	72.1	79.2	60.1	53.7	57.5	74.1	57.5	68.5	74.9	56.8	67.3
Chinchpokali (W)	81.4	59.0	68.1	94.4	68.4	78.8	79.4	71.9	76.6	84.7	75.2	80.2	76.5	72.1	74.2
Dadar (E)	59.9	50.4	56.0	86.8	59.1	72.8	96.7	89.3	92.7	88.6	79.4	84.1	96.2	73.9	83.4
Dadar (W)	59.7	52.0	55.8	79.7	65.3	72.7	79.4	70.9	75.5	81.6	56.9	65.1	73.6	64.5	68.3
Elphinstone	66.4	54.2	61.0	88.3	77.7	82.1	77.6	69.3	74.7	76.3	59.5	67.6	74.6	62.1	67.6
Ghatkopar	72.4	65.0	68.7	86.4	75.8	80.1	84.6	74.2	78.6	70.5	64.0	65.9	73.8	65.3	69.4
Girgaon Chowpati	83.0	62.8	72.8	88.4	75.3	83.3	79.7	74.5	77.6	70.7	64.4	68.4	88.2	60.1	70.8
Grant Road	74.6	64.7	71.2	83.0	56.0	74.9	87.6	81.8	85.3	70.8	65.6	67.1	70.4	57.5	65.0
Juhu Chowpati	81.7	59.8	70.9	79.7	26.5	68.0	73.3	56.2	65.0	76.5	71.1	73.8	85.5	79.4	83.3
Kandivali (E)	81.2	56.3	72.4	77.3	58.4	68.5	83.9	68.7	73.5	77.4	68.9	72.5	88.6	58.1	74.8
Kandivali (W)	81.4	58.0	69.3	79.4	59.9	69.1	86.5	83.7	85.1	76.1	64.5	70.0	68.8	56.9	62.4
Khar	80.0	59.7	71.4	76.7	57.0	70.2	90.4	83.2	88.4	64.3	53.1	58.2	76.3	64.3	68.7

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
Mulund	66.7	59.2	63.9	78.0	52.7	69.5	71.9	56.3	61.0	71.4	62.5	66.7	97.5	64.7	80.4
Mumbai Central	59.2	50.2	54.6	74.2	51.6	67.6	75.7	63.4	70.2	72.5	54.8	60.5	78.2	72.3	75.0
Parel	87.0	76.3	80.3	73.4	46.4	64.7	71.0	63.5	67.4	64.9	58.3	62.0	76.8	53.9	67.2
Santacruz (E)	82.1	53.6	69.4	77.1	69.6	73.4	81.6	68.2	77.8	60.1	51.4	54.8	78.5	55.9	67.9
Vikhroli	84.6	78.6	80.7	84.7	71.8	77.2	80.6	62.5	70.5	89.8	57.0	83.4	91.3	72.0	78.9
Wadala	83.0	59.6	74.7	95.5	64.7	80.7	75.7	69.7	72.3	89.1	83.0	86.8	77.5	68.2	72.0
NAVI MUMBAI															
Airoli	74.8	55.7	66.7	67.8	57.8	63.6	75.7	69.7	72.2	93.4	83.6	87.7	69.9	64.0	66.5
CBD	80.8	66.2	72.5	89.1	65.3	74.1	84.3	72.5	78.1	81.7	51.3	68.5	70.8	65.6	68.5
Kopar Khairane	74.5	57.2	65.7	79.4	66.7	75.0	86.0	64.3	74.7	77.8	56.7	65.0	76.5	65.9	71.3
Uran	79.5	46.0	58.2	77.6	63.8	73.9	77.7	66.1	73.3	68.4	64.0	65.8	74.8	68.9	72.3
Vashi	79.0	55.3	66.0	77.3	59.4	70.7	65.0	62.7	63.4	78.2	67.6	71.0	77.4	67.3	71.8
THANE															
Gokhle Road	73.9	57.6	65.7	78.0	52.7	70.3	71.5	63.2	68.1	75.8	52.8	58.1	72.7	53.1	61.2
Jambli Naka	76.0	68.9	72.5	74.9	51.6	68.7	60.6	48.9	54.3	81.8	58.6	72.9	67.9	56.7	63.0
Main Road	75.8	66.5	71.8	73.4	46.4	65.4	89.8	82.5	85.0	86.4	63.5	81.0	72.5	57.8	65.7
Pokhran Road	67.1	54.3	60.3	80.9	65.7	74.3	87.9	79.4	82.9	84.6	76.7	82.0	64.9	54.8	60.2
Wagle Estate	67.6	50.8	60.6	77.3	58.4	69.5	93.6	89.4	91.8	86.7	74.0	82.6	61.8	52.3	57.7
Court Naka	73.1	60.3	66.2	79.4	59.9	70.6	77.1	69.6	73.4	74.8	64.3	68.5	89.8	51.4	70.9
Mental Hospital	54.7	48.9	51.9	76.8	57.0	70.9	81.8	65.9	72.0	72.4	60.6	66.3	89.4	83.0	87.0
Bedekar Hospital	56.2	52.2	54.6	81.3	66.1	73.7	72.5	66.4	68.4	76.8	48.8	65.4	92.5	83.6	87.4

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
Kalwa-CSM Hospital	75.7	66.5	71.8	88.3	52.3	74.7	80.9	68.6	75.2	88.9	72.3	81.5	93.4	64.0	76.8
PUNE															
Shivaji Nagar (Sakhar Sankul)	72.0	48.4	65.1	83.5	50.7	70.1	79.0	68.6	74.1	90.0	70.9	82.2	98.4	87.6	93.8
Karve Road (Nul stop)	85.9	45.3	70.4	86.4	74.5	80.2	94.3	73.7	85.9	92.5	71.1	80.7	94.8	80.4	88.3
Swar Gate (Tilak Road)	82.3	49.0	68.4	70.4	62.6	66.1	83.1	74.6	78.8	89.0	72.3	81.9	91.9	84.7	87.8
Satara Road (Balaji Nagar)	84.9	54.6	76.7	91.1	73.9	82.1	96.3	66.2	84.9	84.6	71.1	80.0	102.1	75.8	89.7
Shaniwar Peth (Shanivar Wada)	76.7	72.6	75.1	75.6	72.9	74.6	87.2	76.2	79.8	80.9	76.1	78.5	85.4	80.7	83.6
Yerawada (Near Gunjan Theatre)	72.2	62.8	69.9	71.7	63.8	69.8	74.3	69.6	72.8	78.8	69.7	73.8	78.1	69.1	75.1
Laxmi Road (Shagun Chowk)	113.7	52.6	92.0	87.4	50.1	72.7	88.8	47.1	72.6	90.6	57.7	77.4	116.3	98.8	105.8
Kothrud (Near Shivaji Putala)	72.3	48.0	66.2	83.1	51.8	66.6	87.2	60.9	77.4	90.7	70.6	82.7	101.2	97.1	98.9
Mahatma Phule Madai (Near Mandai)	111.4	60.8	93.6	79.1	48.3	66.8	87.8	49.0	70.2	90.4	57.8	76.2	111.2	90.4	100.6
Sarus Baug (Mitra Mandal Chowk)	89.8	54.9	69.9	84.0	68.4	76.2	85.2	54.2	75.3	85.6	67.2	77.3	90.2	66.2	80.8
Hadapsar (Nera Bhaji Mandai)	73.2	49.4	67.2	84.4	51.6	67.9	83.9	67.6	77.8	89.4	70.2	80.3	104.4	94.2	99.8
Parvati	69.4	46.9	62.3	78.6	54.6	67.4	84.3	59.5	73.8	86.9	64.6	77.5	100.9	95.8	99.2
Koregaon Park	90.3	71.1	78.5	82.6	67.5	75.4	97.5	68.5	76.3	102.1	63.5	80.1	104.9	64.5	82.7
Khadaki (Near Bazar)	71.6	46.3	65.8	76.4	53.2	68.0	81.6	64.1	74.1	88.5	71.1	81.8	101.7	95.8	99.5

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
M G Road (Babajan Chowk)	71.9	44.3	58.7	74.6	71.0	72.1	73.9	70.8	72.7	78.7	69.4	73.2	102.2	82.4	97.0
Chapekar Chowk (Chinchwadgaon)	75.3	65.9	71.5	85.5	74.3	81.2	87.5	72.5	79.9	86.0	74.3	80.1	99.9	85.7	94.1
Pimpri (Shastri Nagar)	85.8	61.4	72.7	83.6	69.9	78.3	78.4	67.1	73.1	78.8	64.1	73.0	103.8	78.9	94.6
Thergaon (Dange Chowk)	71.7	59.9	68.2	86.8	75.8	82.4	82.1	73.4	77.8	82.7	74.5	78.8	93.1	76.9	85.8
Navi Sangavi (Krushna Chauk)	73.8	45.4	62.4	73.6	47.3	62.3	76.1	55.1	65.5	112.7	96.5	105.0	82.1	67.9	77.0
Bhosari Gavthan	74.8	66.5	69.4	83.0	72.1	77.5	97.3	69.2	84.8	85.8	71.7	79.6	97.0	61.2	81.5
NASHIK															
Nashik Road/ *Ramkund	98.3	69.9	88.3	85.0	67.9	75.8	107.0	89.9	97.2	103.3	92.3	99.0	98.3	90.4	93.3
Panchvati/ *Near Ashok Stambh	99.1	81.8	89.6	98.0	85.6	92.4	98.6	90.5	95.0	97.7	91.5	95.3	97.1	80.1	88.7
CBS / *Near Gadge Maharaj Statue	97.7	77.2	89.3	97.4	77.1	84.2	101.9	92.7	97.4	103.8	96.2	98.3	101.8	97.3	99.2
CIDCO/ *River Bank of Waldevi	88.2	68.1	79.0	81.2	65.0	73.5	93.4	75.9	85.4	101.7	83.6	89.7	92.5	69.5	83.9
Dahi Pool/ *CIDCO (Behind PF Off.)	99.2	78.2	88.7	94.2	74.3	87.3	97.2	86.3	93.2	93.2	81.8	89.0	83.1	73.0	77.7
AURANGABAD															
Gulmandi	74.6	62.4	69.9	76.5	65.3	71.8	78.2	64.6	73.3	78.9	72.5	75.5	92.1	78.4	86.9
City Chowk	71.8	64.2	68.2	72.2	66.1	69.5	75.1	64.1	70.2	80.4	67.0	74.9	97.3	83.3	94.1

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
Kranti Chowk	75.8	68.3	72.9	77.2	65.3	71.6	79.1	66.4	74.2	82.8	70.4	77.4	90.1	80.0	85.8
CIDCO Residential	60.1	55.6	58.6	67.1	55.4	61.9	66.3	53.7	62.0	73.7	60.6	67.3	78.4	60.8	70.4
NAGPUR															
Ramdaspath / *Ambazari lake	67.6	53.1	61.8	77.5	65.6	71.3	71.4	65.9	69.3	70.7	66.3	68.7	83.6	75.9	81.4
Cotton Market / *Sonegaon lake	67.8	59.8	65.1	74.7	67.5	72.0	78.4	71.4	74.4	78.6	71.1	74.9	75.3	67.2	70.8
Golibar Chauk / *Gandhisagar	81.5	62.0	71.3	62.8	60.9	62.1	80.3	64.3	73.4	70.3	58.5	66.9	100.7	88.5	94.5
Reshimbag / *Futala lake	76.6	61.8	70.5	78.9	59.4	72.7	81.6	69.7	76.4	81.1	67.1	76.0	87.8	80.5	84.4
Gandhiputala / *Sakkardara lake	80.3	68.2	74.3	74.3	65.6	71.5	79.7	70.1	75.1	80.6	68.5	75.4	87.8	70.8	79.4
KALYAN															
Bhiwandi	66.7	52.8	56.4	80.4	58.5	70.5	54.8	48.7	51.5	74.9	68.5	71.3	77.9	51.3	66.6
Shivaji Chawk	59.1	48.2	54.0	92.5	65.6	77.0	90.3	87.8	88.9	70.0	66.0	67.8	67.0	56.7	63.5
Ulhasnagar Station	92.3	55.8	75.9	81.2	68.9	73.4	86.1	75.0	81.7	69.6	65.6	68.0	78.2	65.2	69.9
AMARAVATI															
Bhudhwara	69.8	45.6	58.0	76.5	62.1	68.6	82.9	70.7	76.4	78.2	69.7	75.1	83.8	75.0	78.8
Rajkamal Square	75.7	46.3	64.2	76.4	66.0	73.0	75.8	69.8	73.4	75.8	69.4	72.5	74.9	68.4	71.8
Irvin Hospital Square	67.1	43.2	57.9	76.9	66.8	72.8	77.0	66.3	69.6	74.6	65.2	68.7	70.7	63.6	67.4
JALGAON															
Subhash Chowk	90.0	67.4	79.2	76.2	63.8	68.7	81.6	65.0	73.2	87.3	69.7	80.3	99.1	76.1	86.9

Location	9 th Sept.			10 th Sept.			13 th Sept.			15 th Sept.			18 th Sept.		
	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}	L _{max}	L _{min}	L _{Aeq}
Shashtri Tower Chowk	96.3	71.8	84.5	85.9	67.3	74.7	89.7	68.4	76.4	93.1	73.4	84.3	102.7	90.9	96.1
Shanipeth Police Station	71.2	61.3	64.9	69.4	61.8	65.2	68.6	60.2	64.1	69.1	59.2	64.8	69.2	62.6	65.9
KOLHAPUR															
Rajaram Puri	98.0	42.0	70.5	85.0	55.0	73.7	88.0	50.0	75.8	90.0	80.0	85.5	86.0	65.0	75.3
Mahalaxmi Mandir	67.0	44.0	57.0	66.0	48.0	56.7	66.0	47.0	57.3	73.0	47.0	61.5	83.0	77.0	79.8
Khas Baug Maidan	92.0	52.0	73.0	89.0	62.0	81.0	93.0	52.0	81.0	94.0	80.0	87.3	101.0	99.0	99.8
SATARA															
Powai Naka	72.3	40.0	55.8	73.0	62.5	68.9	72.5	65.5	70.3	74.0	61.3	69.6	79.9	63.8	73.2
Moti Chowk	70.5	49.0	58.5	73.5	68.0	70.9	75.5	69.0	71.6	71.5	65.0	67.7	79.8	68.3	74.4
Rajwada	67.3	45.5	57.1	76.5	67.0	70.1	72.5	67.3	69.7	70.5	60.3	67.8	79.0	68.0	74.0

*The 5th days (18th September 2013) was carried out at this spot for Nashik and Nagpur.

Mumbai: In Mumbai, the average maximum noise level (92.7 dBA) was observed on the 13th September 2013, which is the third day of monitoring and minimum noise level (54.6 dBA) was observed at Mumbai Central on the first day of monitoring i.e. on 9th September, 2013

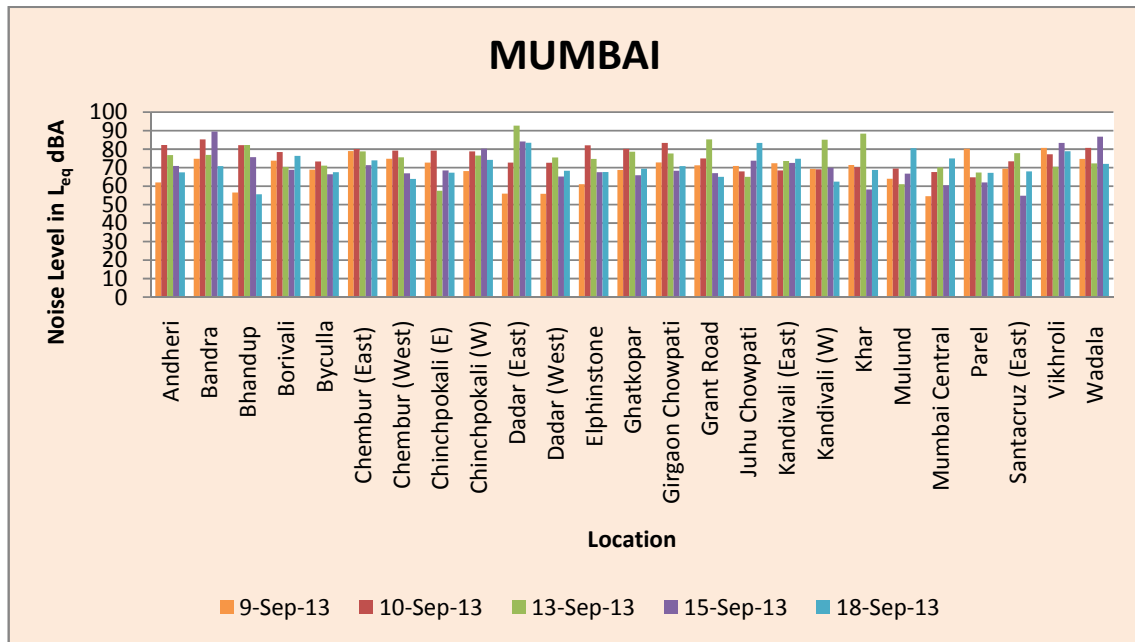


Chart 4.1: Noise levels from 9th to 18th Sept., 2013 in Mumbai during 18:00 hrs to 24:00 hrs.

Navi Mumbai: In Navi Mumbai, the average maximum noise level (87.7dBA) was observed at Uran – Ganpati Chowk on 15th September, 2013 and minimum noise level (58.2dBA) was observed at Airoli on 9th September, 2013.

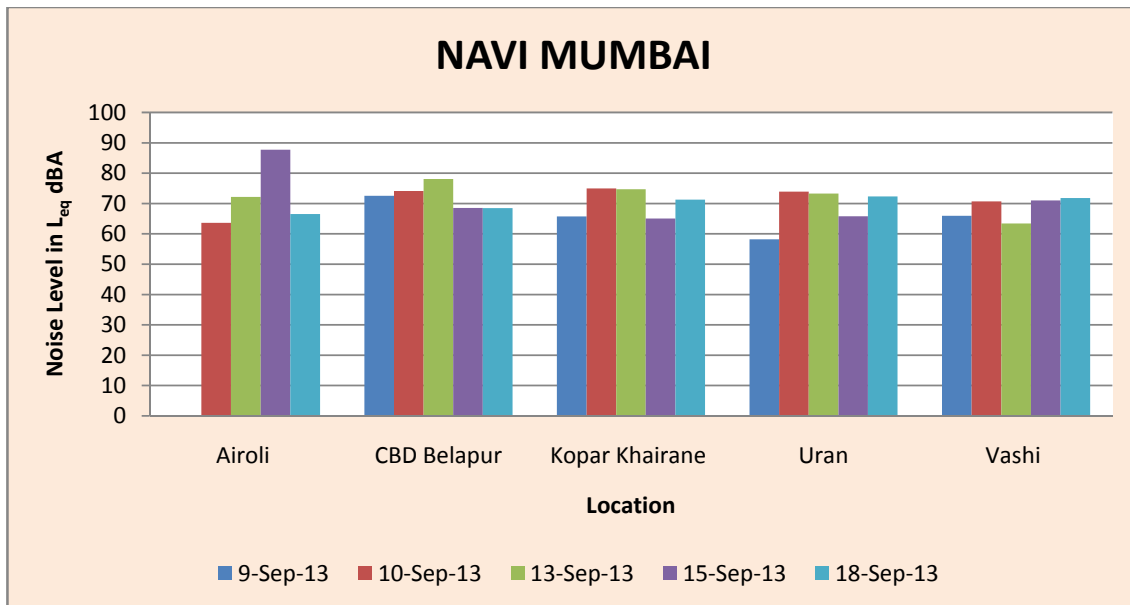


Chart 4.2: Noise levels from 9th to 18th Sept., 2013 in Navi Mumbai during 18:00 hrs to 24:00 hrs.

Thane: The average maximum noise level (91.8 dBA) was observed at Wagle Estate on 13th September, 2013 and minimum noise level (51.9 dBA) was observed at Mental Hospital on the first day of monitoring i.e. on 9th September, 2013.

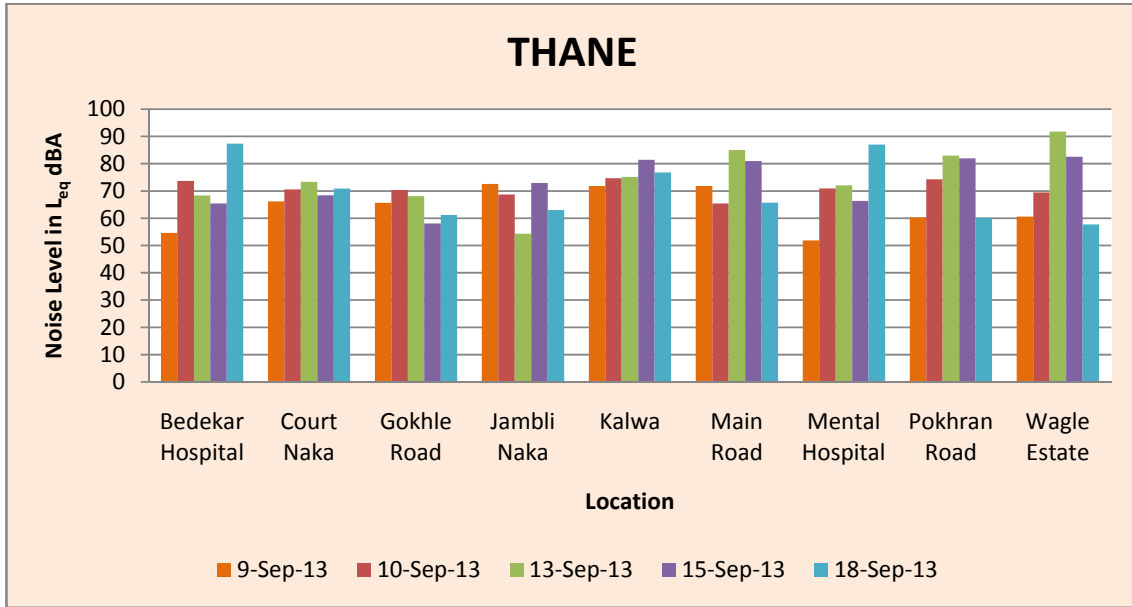


Chart 4.3: Noise levels from 9th to 18th Sept., 2013 in Thane during 18:00 hrs to 24:00 hrs.

Pune: In Pune, the overall average noise level was high on the fourth and fifth day of monitoring. The maximum noise level (105.8 dBA) was observed at Laxmi road on 18th September, 2013 and minimum noise level (58.7 dBA) was observed at M. G. Road on 9th September, 2013.

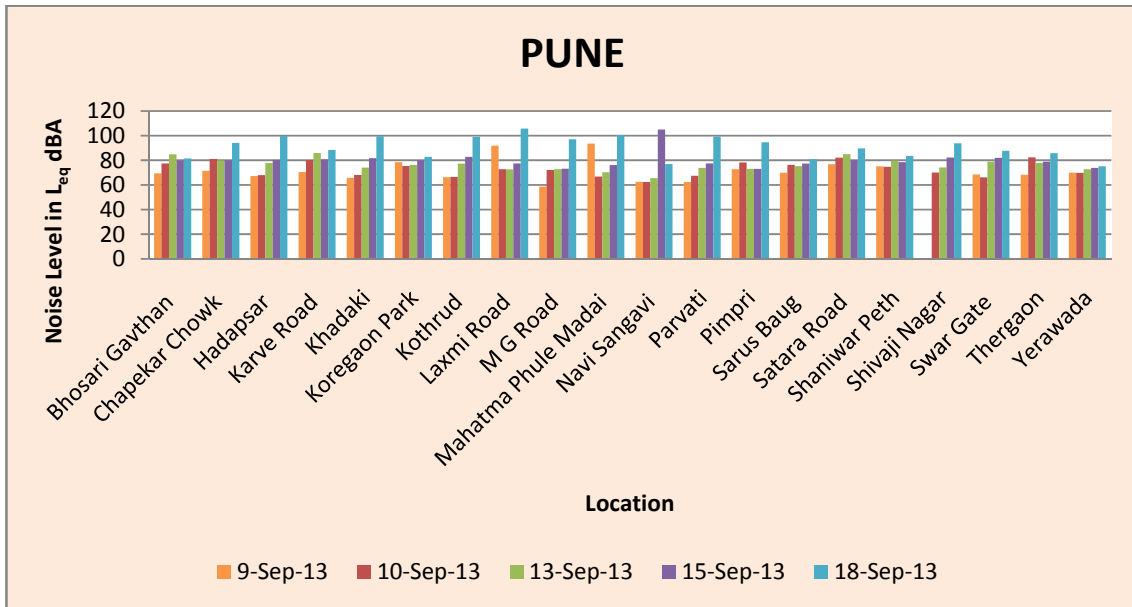


Chart 4.4: Noise levels from 9th to 18th Sept., 2013 in Pune during 18:00 hrs to 24:00 hrs.

Nashik: In Nashik, the maximum noise level (99.2dBA) was observed Near Gadge Maharaj Statue on 18th September, 2013 and minimum noise level (73.5 dBA) was observed at CIDCO on the second day of monitoring i.e. on 10th September, 2013.

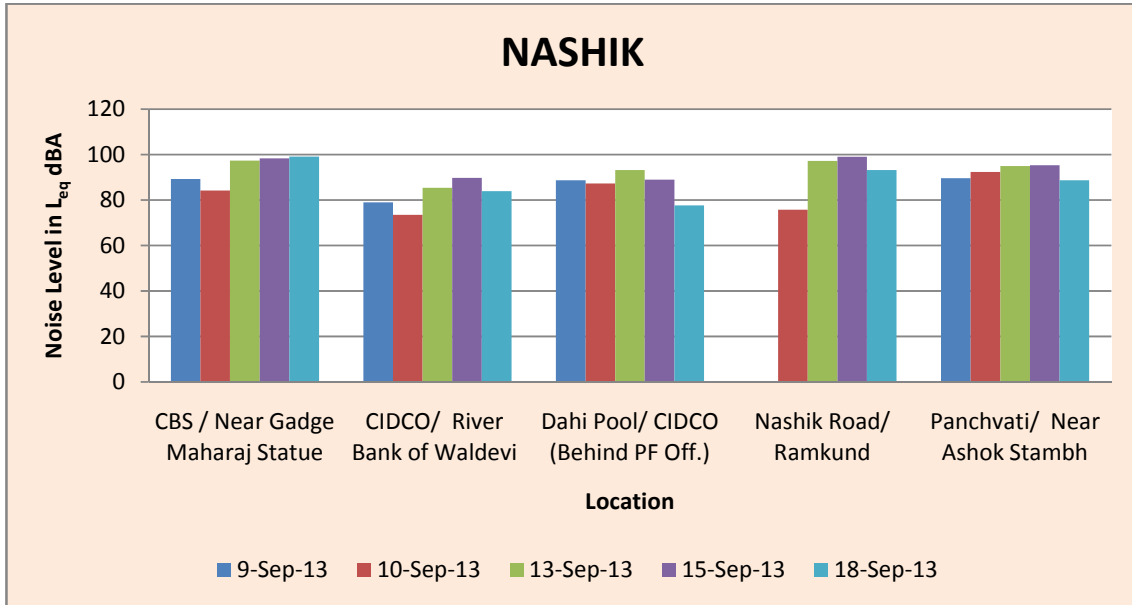


Chart 4.5: Noise levels from 9th to 18th Sept., 2013 in Nashik during 18:00 hrs to 24:00 hrs.

Aurangabad: In Aurangabad, the maximum noise level (94.1 dBA) was observed at City Chowk on the last day of noise monitoring which is on 18th September, 2013 and minimum noise level (58.6 dBA) was observed at CIDCO Residential on 9th September, 2013.

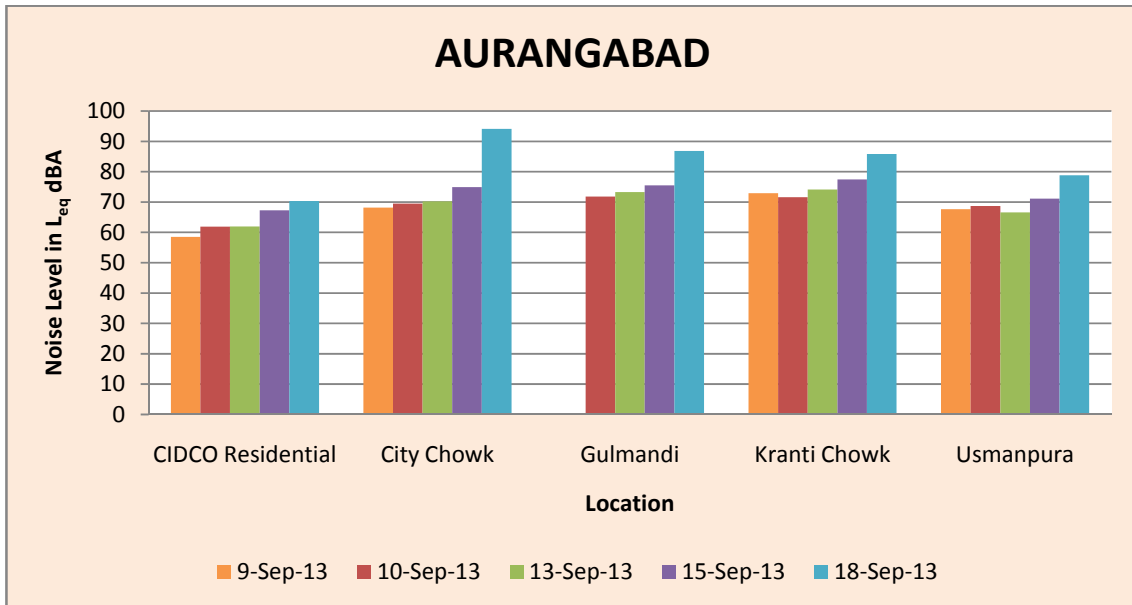


Chart 4.6: Noise levels from 9th to 18th Sept., 2013 in Aurangabad during 18:00 hrs to 24:00 hrs.

Nagpur: In Nagpur, the maximum noise level (94.5 dBA) was observed at Gandhi Sagar on 18th September, 2013 and minimum noise level (62.1 dBA) was observed at Golibar Chauk on 10th September, 2013.

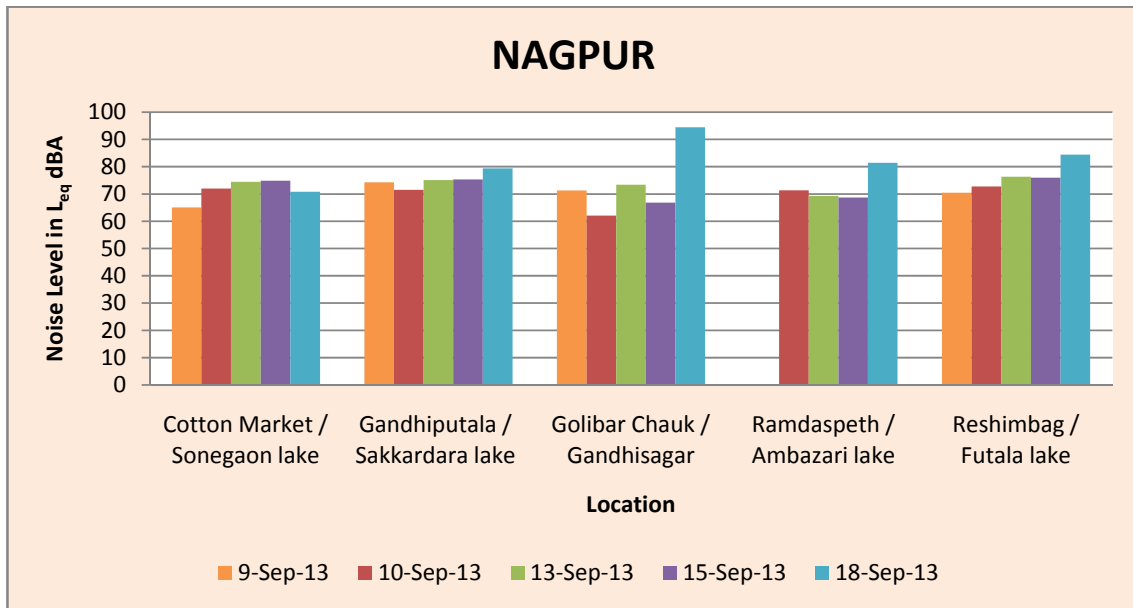


Chart 4.7: Noise levels from 9th to 18th Sept., 2013 in Nagpur during 18:00 hrs to 24:00 hrs.

Kalyan: In Kalyan, on the third day of monitoring the average maximum (88.9 dBA) and minimum (51.5 dBA) noise level was observed at Shivaji Chowk and Bhiwandi respectively.

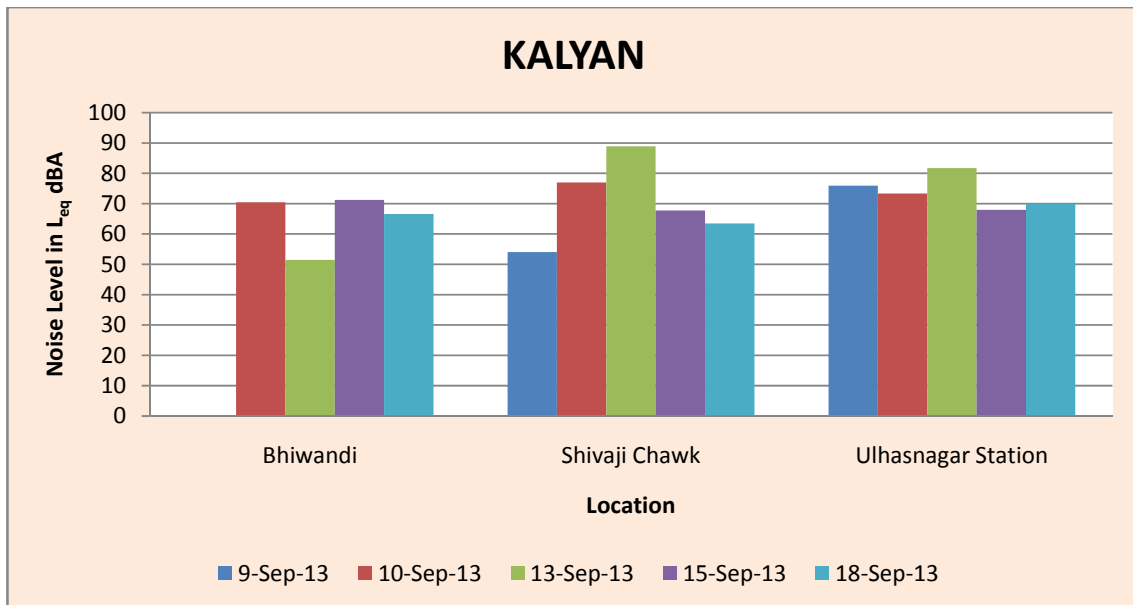


Chart 4.8: Noise levels from 9th to 18th Sept., 2013 in Kalyan during 18:00 hrs to 24:00 hrs.

Amravati: In Amravati, the average maximum noise level (78.8 dBA) was observed at Bhudhwara on 18th September, 2013 and minimum noise level (57.9 dBA) was observed at Irvin Hospital Square on 9th September, 2013.

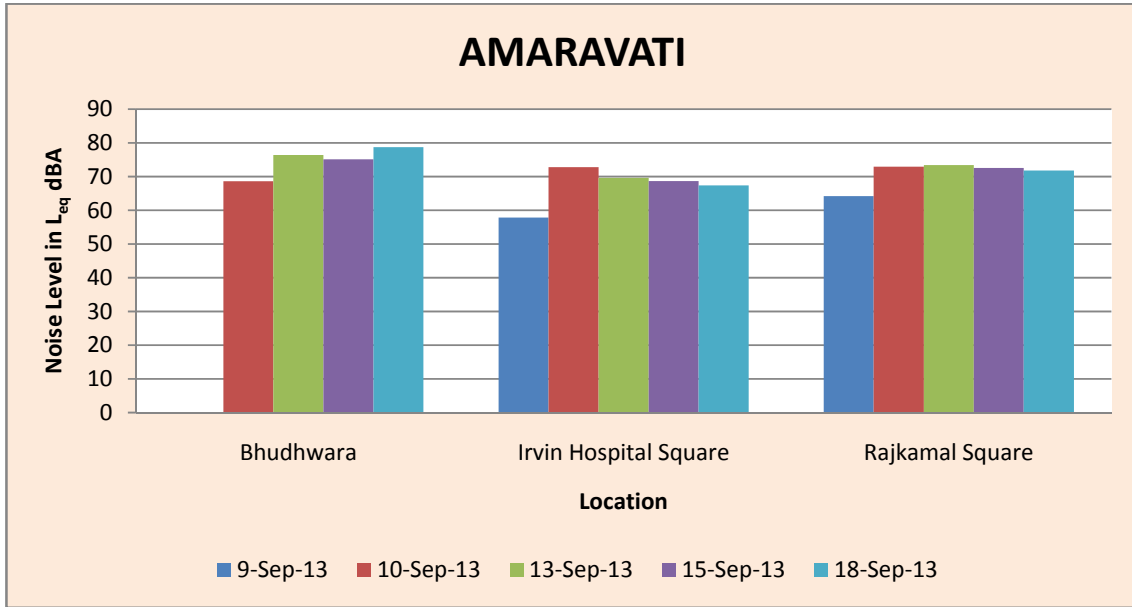


Chart 4.9: Noise levels from 9th to 18th Sept., 2013 in Amravati during 18:00 hrs to 24:00 hrs.

Jalgaon: In Jalgaon, the average maximum noise level (96.1 dBA) was observed at Shashtri Tower Chowk on 18th September, 2013 which is the last day of monitoring and the average minimum noise level (64.1 dBA) was observed at Shanipeth Police station on 13th September, 2013.

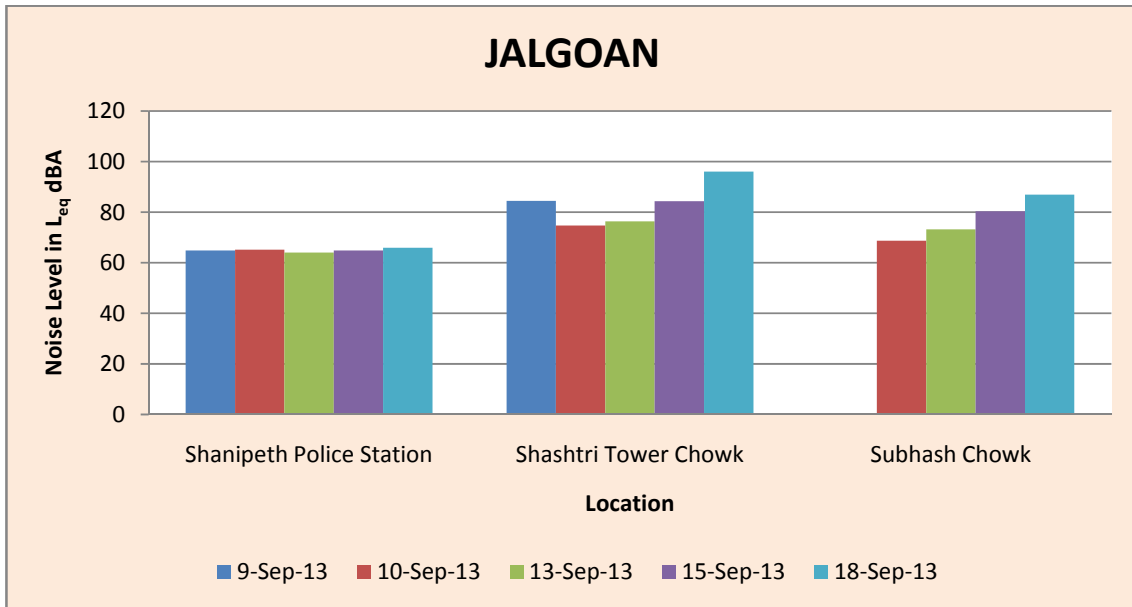


Chart 4.10: Noise levels from 9th to 18th Sept., 2013 in Jalgaon during 18:00 hrs to 24:00 hrs.

Kolhapur: In Kolhapur, the average maximum noise level (99.8 dBA) was observed at Khas Baug Maidan on 18th September, 2013 and average minimum noise level (56.7 dBA) was observed at Mahalaxmi Mandir on 10th September, 2013.

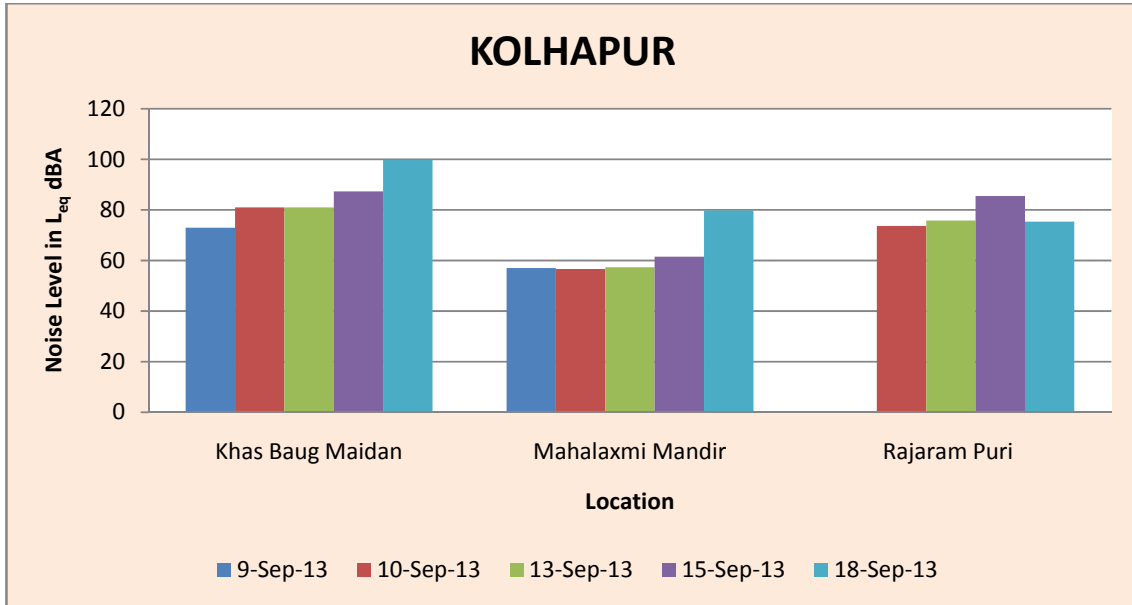


Chart 4.11: Noise levels from 9th to 18th Sept., 2013 in Kolhapur during 18:00 hrs to 24:00 hrs.

Satara: In Satara, the average maximum noise level (74.4 dBA) was observed at Moti Chowk on 18th September, 2013 and minimum noise level (57.1 dBA) was observed at Rajwada on 9th September, 2013.

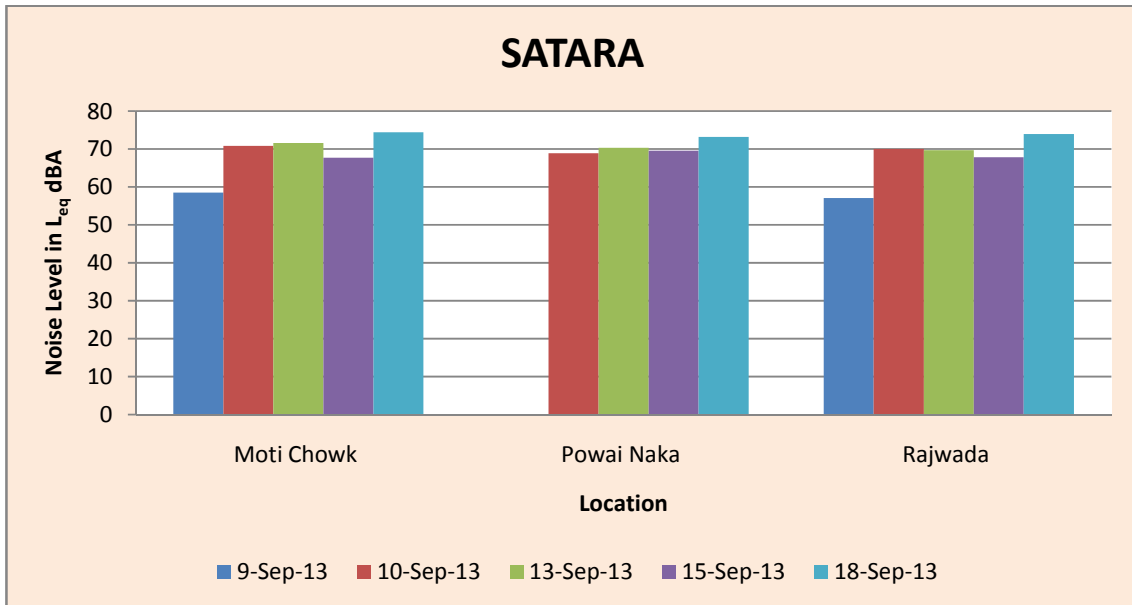


Chart 4.12: Noise levels from 9th to 18th Sept., 2013 in Satara during 18:00 hrs to 24:00 hrs.

Dadar (W)	79.0	68.9	67.8	65.3	79.7	75.4
Elphinstone	77.7	79.4	85.9	80.6	88.3	80.9
Ghatkopar	77.6	80.4	83.3	75.8	86.4	77.2
Girgaon Chowpati	75.3	80.7	85.8	83.1	86.8	88.4
Grant Road	77.3	73.3	79.1	56.0	83.0	80.7
Juhu Chowpati	77.6	74.8	76.1	76.5	79.7	73.2
Kandivali (E)	74.5	77.3	58.4	73.6	61.2	66.4
Kandivali (W)	73.1	79.4	67.0	68.1	59.9	66.9
Khar	75.7	76.7	70.5	68.8	57.0	72.5
Mulund	78.0	76.5	68.0	71.6	52.7	70.3
Mumbai Central	74.2	73.6	66.6	71.4	51.6	68.2
Parel	73.4	69.4	59.1	71.9	46.4	68.3
Santacruz (E)	72.4	74.7	73.5	69.6	72.9	77.1
Vikhroli	74.3	79.6	80.7	84.7	71.8	72.3
Wadala	71.5	81.6	95.5	94.2	77.1	64.7
Hourly Noise levels at various locations in Mumbai on 13th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Andheri	73.2	73.6	79.0	78.8	79.1	77.2
Bandra	72.0	71.5	76.6	78.9	80.5	81.9
Bhandup	84.2	83.5	83.8	80.1	82.1	80.0
Borivali	72.4	77.1	76.4	69.8	64.5	62.2
Byculla	71.2	70.6	69.5	69.0	72.2	73.5
Chembur (E)	82.8	81.6	77.3	70.5	82.7	77.9
Chembur (W)	74.3	81.2	77.3	74.8	73.7	72.4
Chinchpokali (E)	57.1	60.1	58.7	53.7	56.1	59.3
Chinchpokali (W)	73.0	71.9	79.2	79.4	78.7	77.2
Dadar (E)	89.3	93.4	89.9	96.7	93.4	93.3
Dadar (W)	75.2	79.4	79.1	76.2	72.4	70.9
Elphinstone	77.6	76.4	77.6	75.9	71.4	69.3
Ghatkopar	75.5	74.5	81.4	84.6	81.5	74.2
Girgaon Chowpati	75.8	76.5	79.7	79.5	79.7	74.5
Grant Road	85.8	84.7	86.8	81.8	85.1	87.6
Juhu Chowpati	68.4	73.3	64.4	67.8	59.7	56.2
Kandivali (E)	70.9	69.7	68.7	72.8	75.2	83.9
Kandivali (W)	85.1	83.7	84.2	86.5	85.1	85.9
Khar	88.6	89.2	90.4	90.0	88.9	83.2
Mulund	71.9	58.6	58.8	56.3	59.7	60.8
Mumbai Central	65.4	68.3	63.4	75.7	75.0	73.4
Parel	63.5	65.8	66.4	68.3	69.3	71.0
Santacruz (E)	68.2	73.6	81.0	80.8	81.6	81.6
Vikhroli	80.6	74.0	69.6	69.1	62.5	66.9
Wadala	69.7	72.1	75.7	72.9	71.1	72.1

Hourly Noise levels at various locations in Mumbai on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Andheri	72.0	75.6	72.6	72.3	65.0	67.7
Bandra	64.7	93.6	94.2	97.5	96.2	90.9
Bhandup	89.3	73.9	74.3	75.7	67.4	73.6
Borivali	69.7	65.4	64.5	69.2	74.6	69.5
Byculla	64.7	65.8	68.8	62.1	71.8	65.3
Chembur (E)	68.0	73.8	66.7	70.8	63.8	85.0
Chembur (W)	88.2	60.1	67.5	60.3	63.8	62.1
Chinchpokali (E)	57.5	65.9	70.2	70.4	73.0	74.1
Chinchpokali (W)	77.0	75.2	80.1	81.6	84.7	82.8
Dadar (E)	83.8	85.5	83.5	79.4	84.0	88.6
Dadar (W)	81.6	70.7	65.6	58.1	56.9	57.9
Elphinstone	59.5	64.8	68.8	66.6	69.4	76.3
Ghatkopar	70.5	64.3	65.3	66.6	64.9	64.0
Girgaon Chowpati	69.9	66.5	64.4	69.2	70.7	69.5
Grant Road	66.7	70.8	67.6	65.6	65.9	65.9
Juhu Chowpati	72.3	71.1	76.5	76.1	74.1	72.5
Kandivali (E)	74.1	68.9	74.8	69.7	77.4	70.5
Kandivali (W)	67.3	69.1	70.3	76.1	72.7	64.5
Khar	64.3	53.1	56.3	56.1	56.7	62.5
Mulund	64.1	62.5	64.3	67.9	70.1	71.4
Mumbai Central	72.5	62.9	59.6	57.8	54.8	55.4
Parel	58.3	63.8	64.9	64.1	61.8	59.2
Santacruz (E)	59.3	60.1	53.5	52.3	52.3	51.4
Vikhroli	57.0	86.1	88.6	89.8	89.2	89.4
Wadala	87.3	84.9	88.4	83.0	89.1	88.0
Hourly Noise levels at various locations in Mumbai on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Andheri	64.3	66.3	68.2	65.6	69.7	70.4
Bandra	80.0	63.1	69.8	71.1	70.3	70.6
Bhandup	69.7	66.4	60.2	50.0	42.7	44.4
Borivali	74.8	70.9	83.6	76.8	74.6	77.6
Byculla	69.0	67.6	63.4	68.1	71.8	65.2
Chembur (E)	69.3	65.3	66.8	95.5	79.3	67.5
Chembur (W)	70.7	66.1	60.3	60.4	65.0	60.8
Chinchpokali (E)	63.8	62.1	56.8	73.8	72.4	74.9
Chinchpokali (W)	73.4	73.3	76.5	75.7	72.1	74.6
Dadar (E)	96.2	90.9	89.3	73.9	74.3	75.7
Dadar (W)	67.4	73.6	69.7	65.4	64.5	69.2
Elphinstone	74.6	69.5	64.7	65.8	68.8	62.1
Ghatkopar	71.8	65.3	68.0	73.8	66.7	70.8
Girgaon Chowpati	63.8	85.0	88.2	60.1	67.5	60.3

Grant Road	63.8	62.1	57.5	65.9	70.2	70.4
Juhu Chowpati	84.7	82.8	83.8	85.5	83.5	79.4
Kandivali (E)	84.0	88.6	81.6	70.7	65.6	58.1
Kandivali (W)	56.9	57.9	59.5	64.8	68.8	66.6
Khar	69.4	76.3	70.5	64.3	65.3	66.6
Mulund	65.0	67.7	64.7	93.6	94.2	97.5
Mumbai Central	78.2	74.3	76.5	72.9	72.3	75.6
Parel	76.8	75.8	76.4	64.6	55.6	53.9
Santacruz (E)	55.9	60.9	60.0	74.6	77.5	78.5
Vikhroli	91.3	89.4	72.0	75.6	72.6	72.3
Wadala	72.3	77.5	74.1	68.9	71.2	68.2
Hourly Noise levels at various locations in Navi Mumbai on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Airoli	55.7	62.5	67.7	67.6	72.1	74.8
CBD	66.5	71.3	66.2	78.3	72.2	80.8
Kopar Khairane	57.2	61.6	65.4	67.3	68.3	74.5
Uran	46.0	48.6	54.3	57.0	63.6	79.5
Vashi	57.2	55.3	66.0	67.6	70.7	79.0
Hourly Noise levels at various locations in Navi Mumbai on 10th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Airoli	64.4	67.8	63.1	63.1	65.5	57.8
CBD	69.8	71.6	65.3	89.1	75.8	73.1
Kopar Khairane	75.8	77.9	66.7	76.8	73.1	79.4
Uran	74.0	76.9	63.8	77.6	74.8	76.4
Vashi	70.8	73.6	59.4	74.5	77.3	68.5
Hourly Noise levels at various locations in Navi Mumbai on 13th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Airoli	69.7	72.1	75.7	72.9	71.1	71.5
CBD	76.7	77.0	84.3	76.4	81.7	72.5
Kopar Khairane	74.4	75.6	76.5	86.0	71.7	64.3
Uran	77.7	77.1	77.0	73.5	68.3	66.1
Vashi	63.3	62.7	62.7	62.8	63.9	65.0
Hourly Noise levels at various locations in Navi Mumbai on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Airoli	92.5	87.0	83.6	84.1	85.7	93.4
CBD	81.7	67.6	64.0	68.6	51.3	77.9
Kopar Khairane	77.8	64.3	64.5	63.7	56.7	63.2
Uran	64.0	64.6	67.0	65.4	68.4	65.2

Mental Hospital	81.8	65.9	69.7	70.4	77.5	67.0
Bedekar Hospital	66.4	67.6	67.4	68.3	68.2	72.5
CSM Hospital, Kalwa	77.1	78.1	80.9	75.3	71.1	68.6
Hourly Noise levels at various locations in Thane on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gokhle Road	75.8	55.6	54.7	52.8	52.9	56.6
Jambli Naka	58.6	77.9	78.9	81.8	70.2	70.2
Gaondevi Mandir	63.5	83.5	85.5	82.3	86.4	84.6
Pokhran Road	76.7	82.3	81.3	83.8	84.6	83.1
Wagle Estate	74.0	85.5	83.1	86.7	85.5	80.7
Court Naka	74.8	70.2	64.3	64.4	66.3	70.8
Mental Hospital	67.5	69.1	66.6	61.5	60.6	72.4
Bedekar Hospital	71.1	65.2	66.6	48.8	76.8	63.9
CSM Hospital, Kalwa	76.4	86.8	88.9	81.3	83.1	72.3
Hourly Noise levels at various locations in Thane on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gokhle Road	72.7	64.5	64.3	53.1	56.3	56.1
Jambli Naka	56.7	62.5	64.1	62.5	64.3	67.9
Gaondevi Mandir	70.1	71.4	72.5	62.9	59.6	57.8
Pokhran Road	54.8	55.4	58.3	63.8	64.9	64.1
Wagle Estate	61.8	59.2	59.3	60.1	53.5	52.3
Court Naka	52.3	51.4	57.0	86.1	88.6	89.8
Mental Hospital	89.2	89.4	87.3	84.9	88.4	83.0
Bedekar Hospital	89.1	88.0	92.5	87.0	83.6	84.1
CSM Hospital, Kalwa	85.7	93.4	81.7	67.6	64.0	68.6
Hourly Noise levels at various locations in Pune on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Shivaji Nagar (Sakhar Sankul)	48.4	60.5	71.1	68.2	70.5	72.0
Karve Road (Nul stop)	45.3	63.4	75.0	76.2	76.7	85.9
Swar Gate (Tilak Road)	49.0	58.3	69.3	76.4	82.3	75.4
Satara Road (Balaji Nagar)	54.6	72.5	80.0	84.9	84.6	83.8
Shaniwar Peth (Shanivar Wada)	72.6	74.7	76.7	75.1	74.9	76.7
Yerawada (Near Gunjan Theatre)	62.8	70.0	72.0	71.9	70.3	72.2
Laxmi Road (Shagun Chowk)	52.6	113.7	112.6	108.5	85.0	79.5

Kothrud (Near Shivaji Putala)	48.0	66.0	69.6	69.9	71.4	72.3
Mahatma Phule Madai (Near Mandai)	60.8	111.4	111.4	107.8	86.6	83.4
Sarus Baug (Mitra Mandal Chowk)	54.9	56.1	62.0	74.0	82.6	89.8
Hadapsar (Nera Bhaji Mandai)	49.4	67.9	72.5	71.0	69.5	73.2
Parvati	46.9	55.6	64.1	69.2	68.7	69.4
Koregaon Park	75.1	80.2	90.3	78.1	76.2	71.1
Khadaki (Near Bazar)	46.3	66.4	71.6	68.6	70.7	71.3
M G Road (Babajan Chowk)	44.3	48.3	51.1	65.9	70.9	71.9
Chapekar Chowk (Chinchwadgaon)	65.9	70.6	70.4	72.2	75.3	74.8
Pimpri (Shastri Nagar)	61.4	63.7	67.9	74.5	82.8	85.8
Thergaon (Dange Chowk)	59.9	66.0	70.7	70.2	70.4	71.7
Navi Sangavi (Krushna Chauk)	45.4	56.5	60.3	66.6	72.0	73.8
Bhosari Gavthan	66.5	67.2	74.8	69.6	68.7	69.3
Hourly Noise levels at various locations in Pune on 10th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Shivaji Nagar (Sakhar Sankul)	65.3	75.8	77.5	83.5	67.6	50.7
Karve Road (Nul stop)	77.2	85.7	86.4	80.9	76.7	74.5
Swar Gate (Tilak Road)	66.5	64.8	68.3	70.4	62.6	64.0
Satara Road (Balaji Nagar)	75.8	80.4	91.1	85.4	86.1	73.9
Shaniwar Peth (Shanivar Wada)	74.5	74.9	75.6	75.2	74.8	72.9
Yerawada (Near Gunjan Theatre)	71.7	71.5	71.3	71.1	69.5	63.8
Laxmi Road (Shagun Chowk)	86.6	87.4	79.3	75.7	57.0	50.1
Kothrud (Near Shivaji Putala)	70.0	83.1	77.4	63.5	53.7	51.8
Mahatma Phule Madai (Near Mandai)	79.1	78.7	76.0	63.7	55.2	48.3
Sarus Baug (Mitra Mandal Chowk)	77.1	78.9	80.5	84.0	68.4	68.4
Hadapsar (Nera Bhaji Mandai)	69.7	77.5	84.4	72.5	51.7	51.6
Parvati	65.7	75.3	78.6	69.5	60.7	54.6

Koregaon Park	82.6	75.6	76.2	77.5	67.5	73.0
Khadaki (Near Bazar)	68.0	73.0	76.4	71.8	65.8	53.2
M G Road (Babajan Chowk)	71.8	72.5	72.0	74.6	71.0	71.0
Chapekar Chowk (Chinchwadgaon)	83.8	80.7	83.5	85.5	79.2	74.3
Pimpri (Shastri Nagar)	73.8	80.1	83.6	82.4	79.8	69.9
Thergaon (Dange Chowk)	81.9	86.4	86.8	86.3	77.3	75.8
Navi Sangavi (Krushna Chauk)	66.0	73.6	70.4	61.4	55.2	47.3
Bhosari Gavthan	72.1	78.3	81.0	83.0	76.0	74.4
Hourly Noise levels at various locations in Pune on 13thSept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Shivaji Nagar (Sakhar Sankul)	77.3	79.0	78.9	71.6	69.5	68.6
Karve Road (Nul stop)	85.5	94.3	93.5	86.4	82.2	73.7
Swar Gate (Tilak Road)	74.6	77.4	77.4	83.1	81.9	78.2
Satara Road (Balaji Nagar)	88.0	92.4	96.3	87.4	79.4	66.2
Shaniwar Peth (Shanivar Wada)	77.3	78.9	77.9	81.5	87.2	76.2
Yerawada (Near Gunjan Theatre)	74.0	73.7	74.3	74.1	71.1	69.6
Laxmi Road (Shagun Chowk)	88.8	86.6	83.7	71.2	58.1	47.1
Kothrud (Near Shivaji Putala)	74.1	83.0	87.2	86.5	72.5	60.9
Mahatma Phule Madai (Near Mandai)	87.8	83.2	75.5	67.6	58.4	49.0
Sarus Baug (Mitra Mandal Chowk)	85.2	83.9	83.5	85.0	54.2	59.9
Hadapsar (Nera Bhaji Mandai)	75.0	83.3	83.9	83.5	73.7	67.6
Parvati	70.5	79.5	84.3	82.4	66.6	59.5
Koregaon Park	68.5	68.6	70.2	97.5	83.7	69.2
Khadaki (Near Bazar)	76.0	80.3	81.6	74.8	67.7	64.1
M G Road (Babajan Chowk)	70.8	72.3	73.7	73.9	73.0	72.3
Chapekar Chowk (Chinchwadgaon)	75.1	83.7	87.5	83.6	76.9	72.5
Pimpri (Shastri Nagar)	75.3	77.6	78.4	71.5	68.8	67.1

Thergaon (Dange Chowk)	76.2	78.4	82.1	80.8	76.1	73.4
Navi Sangavi (Krushna Chauk)	65.0	65.4	76.1	69.6	61.9	55.1
Bhosari Gavthan	78.3	88.2	97.3	94.0	82.0	69.2
Hourly Noise levels at various locations in Pune on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Shivaji Nagar (Sakhar Sankul)	77.4	86.7	90.0	88.1	80.2	70.9
Karve Road (Nul stop)	75.6	85.2	92.5	85.3	74.6	71.1
Swar Gate (Tilak Road)	72.3	74.4	82.3	85.9	89.0	87.8
Satara Road (Balaji Nagar)	80.8	84.1	78.2	81.4	84.6	71.1
Shaniwar Peth (Shanivar Wada)	76.7	78.4	79.2	80.9	79.5	76.1
Yerawada (Near Gunjan Theatre)	74.7	72.6	73.6	73.1	78.8	69.7
Laxmi Road (Shagun Chowk)	90.6	87.6	84.2	76.4	68.3	57.7
Kothrud (Near Shivaji Putala)	78.8	88.9	90.7	88.2	79.3	70.6
Mahatma Phule Madai (Near Mandai)	90.4	84.4	81.3	74.0	69.2	57.8
Sarus Baug (Mitra Mandal Chowk)	84.5	85.6	81.2	78.1	67.2	67.5
Hadapsar (Nera Bhaji Mandai)	77.7	86.5	89.4	87.6	70.4	70.2
Parvati	72.4	84.5	86.9	85.1	71.6	64.6
Koregaon Park	102.1	93.2	84.7	72.3	63.5	64.6
Khadaki (Near Bazar)	78.3	88.1	86.9	88.5	77.8	71.1
M G Road (Babajan Chowk)	78.7	74.7	73.1	72.4	71.1	69.4
Chapekar Chowk (Chinchwadgaon)	77.2	86.0	82.8	84.8	75.4	74.3
Pimpri (Shastri Nagar)	71.6	78.6	78.8	78.8	66.2	64.1
Thergaon (Dange Chowk)	77.8	79.9	82.7	82.1	75.9	74.5
Navi Sangavi (Krushna Chauk)	99.0	103.9	112.7	108.6	109.5	96.5
Bhosari Gavthan	74.9	82.7	78.5	85.8	84.1	71.7
Hourly Noise levels at various locations in Pune on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Shivaji Nagar (Sakhar Sankul)	89.5	92.7	98.4	97.6	97.1	87.6

Karve Road (Nul stop)	80.4	84.6	91.3	94.8	93.3	85.7
Swar Gate (Tilak Road)	84.7	86.9	86.6	90.2	91.9	86.4
Satara Road (Balaji Nagar)	75.8	89.8	94.5	102.1	89.6	86.4
Shaniwar Peth (Shanivar Wada)	83.6	80.7	84.5	85.4	83.3	84.2
Yerawada (Near Gunjan Theatre)	77.5	78.1	77.9	75.0	73.4	69.1
Laxmi Road (Shagun Chowk)	114.4	116.3	98.8	99.4	107.0	98.9
Kothrud (Near Shivaji Putala)	98.8	100.1	101.2	98.8	97.1	97.8
Mahatma Phule Madai (Near Mandai)	109.9	111.2	90.6	90.4	101.8	99.6
Sarus Baug (Mitra Mandal Chowk)	89.1	90.2	83.8	79.0	76.4	66.2
Hadapsar (Nera Bhaji Mandai)	104.4	100.4	100.0	99.6	94.2	100.0
Parvati	99.0	99.9	99.5	100.2	100.9	95.8
Koregaon Park	88.1	87.0	104.9	79.7	72.1	64.5
Khadaki (Near Bazar)	101.3	101.7	99.5	101.4	95.8	97.1
M G Road (Babajan Chowk)	82.4	98.1	100.8	102.2	100.2	98.3
Chapekar Chowk (Chinchwadgaon)	85.7	93.1	93.9	92.9	99.9	99.2
Pimpri (Shastri Nagar)	103.8	90.3	78.9	94.1	102.0	98.6
Thergaon (Dange Chowk)	76.9	84.9	84.7	83.4	93.1	92.0
Navi Sangavi (Krushna Chauk)	78.7	80.2	82.1	79.9	73.3	67.9
Bhosari Gavthan	79.7	85.4	97.0	92.7	72.9	61.2
Hourly Noise levels at various locations in Nashik on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Nashik Road	86.6	98.3	94.3	94.0	86.5	69.9
Panchvati	87.6	90.1	95.0	99.1	83.9	81.8
CIDCO	87.3	94.6	86.5	97.7	92.3	77.2
CBS	85.2	88.2	77.5	84.4	70.9	68.1
Dahi Pool	85.4	99.2	98.9	83.7	87.1	78.2
Hourly Noise levels at various locations in Nashik on 10th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Nashik Road	85.0	73.7	73.6	84.2	67.9	70.4

Panchvati	94.2	92.7	98.0	96.5	85.6	87.3
CIDCO	80.8	97.4	92.8	78.9	78.1	77.1
CBS	72.0	75.1	81.2	80.3	65.0	67.6
Dahi Pool	84.6	85.9	92.8	91.9	94.2	74.3
Hourly Noise levels at various locations in Nashik on 13th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Nashik Road	93.7	89.9	102.1	107.0	97.8	92.7
Panchvati	90.5	95.5	93.8	98.6	96.9	94.7
CIDCO	97.8	93.8	98.7	101.9	99.2	92.7
CBS	75.9	83.6	83.7	89.9	93.4	85.7
Dahi Pool	86.3	97.2	94.1	96.8	88.4	96.5
Hourly Noise levels at various locations in Nashik on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Nashik Road	92.3	103.3	102.9	101.8	97.2	96.8
Panchvati	94.8	91.5	93.9	96.5	97.2	97.7
CIDCO	97.8	97.1	103.8	96.2	98.0	97.1
CBS	85.3	83.6	84.2	85.7	97.8	101.7
Dahi Pool	92.5	93.2	85.7	87.9	93.1	81.8
Hourly Noise levels at various locations in Nashik on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ramkund	90.4	92.6	98.3	96.4	90.6	91.3
Near Ashok Stambh	89.5	90.4	97.1	93.1	81.8	80.1
Near Gadge Maharaj Statue	97.3	101.8	98.5	99.6	99.5	98.3
River Bank of Waldevi	86.5	91.3	90.6	92.5	72.9	69.5
CIDCO (Behind PF Off.)	83.1	82.5	73.0	78.7	75.5	73.4
Hourly Noise levels at various locations in Aurangabad on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gulmandi	62.4	67.2	68.9	72.2	74.6	74.1
City Chowk	64.2	64.4	67.5	70.8	70.3	71.8
Kranti Chowk	68.3	71.6	72.4	74.4	75.8	75.1
CIDCO Residential	55.6	59.8	57.5	58.8	60.1	59.6
Usmanpura	65.0	67.1	67.2	68.9	69.1	68.8

Hourly Noise levels at various locations in Aurangabad on 10th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gulmandi	74.6	76.5	75.2	71.3	68.1	65.3
City Chowk	70.5	72.2	70.3	69.6	68.4	66.1
Kranti Chowk	73.8	77.2	72.5	70.7	70.1	65.3
CIDCO Residential	63.2	66.7	67.1	61.4	57.6	55.4
Usmanpura	70.2	71.4	70.1	68.6	67.7	64.2
Hourly Noise levels at various locations in Aurangabad on 13th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gulmandi	78.2	77.6	76.5	73.5	69.2	64.6
City Chowk	75.1	74.0	74.5	67.1	66.6	64.1
Kranti Chowk	79.1	77.9	77.2	74.4	70.0	66.4
CIDCO Residential	64.7	64.2	66.3	62.7	60.2	53.7
Usmanpura	70.2	68.6	67.7	66.1	64.6	62.4
Hourly Noise levels at various locations in Aurangabad on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gulmandi	75.6	78.9	76.0	75.7	74.3	72.5
City Chowk	76.6	79.2	80.4	74.0	72.2	67.0
Kranti Chowk	79.1	81.3	82.8	77.9	73.1	70.4
CIDCO Residential	65.8	70.4	73.7	69.5	63.5	60.6
Usmanpura	76.3	78.4	76.3	67.0	64.9	63.9
Hourly Noise levels at various locations in Aurangabad on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Gulmandi	85.9	88.4	90.2	92.1	86.2	78.4
City Chowk	96.4	97.0	97.3	95.7	94.8	83.3
Kranti Chowk	84.5	87.3	90.1	89.4	83.6	80.0
CIDCO Residential	66.3	70.2	78.4	75.8	70.6	60.8
Usmanpura	80.8	86.7	84.5	78.3	72.6	70.1
Hourly Noise levels at various locations in Nagpur on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ramdaspath	53.1	57.4	62.1	65.2	67.6	65.4
Cotton Market	59.8	62.9	66.8	67.8	67.1	66.1
Golibar Chowk	62.0	66.0	69.2	72.1	77.1	81.5
Reshimbag	61.8	76.6	74.9	72.2	66.5	70.7
Gandhiputala	68.2	79.0	68.8	73.9	80.3	75.5

Hourly Noise levels at various locations in Nagpur on 10 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ramdaspath	70	73.5	75.4	77.5	65.6	66
Cotton Market	73.1	74.7	73.3	72.7	70.5	67.5
Golibar Chowk	62.2	62.8	62	62.6	60.9	62.1
Reshimbag	76.2	78.9	75.9	77.9	68	59.4
Gandhiputala	72.9	74.3	74.2	71.7	70.3	65.6
Hourly Noise levels at various locations in Nagpur on 13 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ramdaspath	70.2	71.4	70.9	70.4	65.9	66.7
Cotton Market	72.6	76.6	78.4	75.4	71.4	72.2
Golibar Chowk	73.1	78.9	71.0	72.8	80.3	64.3
Reshimbag	79.0	79.4	81.6	74.4	74.0	69.7
Gandhiputala	73.5	73.6	79.7	74.3	79.4	70.1
Hourly Noise levels at various locations in Nagpur on 15 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ramdaspath	68.6	70.4	68.5	70.7	67.6	66.3
Cotton Market	73.2	75.2	78.6	78.5	72.8	71.1
Golibar Chowk	70.3	70.2	68.7	66.5	66.9	58.5
Reshimbag	79.1	81.1	78.5	76.8	73.4	67.1
Gandhiputala	75.6	76.5	80.6	77.6	73.3	68.5
Hourly Noise levels at various locations in Nagpur on 18 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Ambazari lake	75.9	80.5	82.6	83.6	83.4	82.3
Sonegaon lake	67.8	67.2	70.3	75.3	69.5	74.7
Gandhisagar	89.7	88.5	93.9	93.5	100.4	100.7
Futala lake	82.3	80.5	83.8	84.6	87.8	87.5
Sakkardara lake	70.8	80.4	78.0	81.2	78.1	87.8
Hourly Noise levels at various locations in Kalyan on 9 th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Bhiwandi-Dhamankar Naka	56.4	56.0	52.8	53.2	53.4	66.7
Shivaji Chawk	48.2	55.9	51.4	53.3	56.2	59.1
Ulhasnagar Station	55.8	59.9	80.9	92.3	88.0	78.7

Hourly Noise levels at various locations in Amravati on 13 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Bhudhwara	73.3	74.4	79.2	82.9	77.8	70.7
Rajkamal Square	75.8	75.8	74.8	72.7	71.4	69.8
Irvin Hospital Square	66.5	70.7	77.0	68.4	68.6	66.3
Hourly Noise levels at various locations in Amravati on 15 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Bhudhwara	78.2	75.1	77.0	75.8	74.9	69.7
Rajkamal Square	73.0	73.5	75.8	72.4	71.1	69.4
Irvin Hospital Square	66.2	70.4	74.6	69.1	66.4	65.2
Hourly Noise levels at various locations in Amravati on 18 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Bhudhwara	76.1	77.2	79.4	83.8	81.1	75.0
Rajkamal Square	74.9	74.6	72.7	71.6	68.4	68.6
Irvin Hospital Square	63.6	67.6	70.7	68.9	68.4	65.0
Hourly Noise levels at various locations in Jalgaon on 9 th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Subhash Chowk	89.9	82.3	90.0	77.5	68.2	67.4
ShashtriTower Chowk	96.3	90.8	92.4	81.9	73.6	71.8
Shanipeth Police Station	71.2	66.3	65.7	62.8	62.0	61.3
Hourly Noise levels at various locations in Jalgaon on 10 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Subhash Chowk	76.2	71.9	68.7	67.0	64.4	63.8
ShashtriTower Chowk	85.9	77.8	75.3	71.8	70.0	67.3
Shanipeth Police Station	69.4	67.8	65.9	63.3	62.9	61.8
Hourly Noise levels at various locations in Jalgaon on 13 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Subhash Chowk	78.1	81.6	75.7	73.2	65.8	65.0
ShashtriTower Chowk	89.7	79.3	77.5	72.9	70.3	68.4

Shanipeth Police Station	68.0	68.6	63.2	62.0	62.4	60.2
Hourly Noise levels at various locations in Jalgaon on 15th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Subhash Chowk	87.3	84.9	87.0	79.9	73.2	69.7
ShashtriTower Chowk	92.2	93.1	88.7	81.6	77.0	73.4
Shanipeth Police Station	69.1	67.0	65.1	65.0	63.6	59.2
Hourly Noise levels at various locations in Jalgaon on 18th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Subhash Chowk	82.4	93.2	99.1	87.0	83.5	76.1
ShashtriTower Chowk	92.6	100.8	102.7	97.1	92.4	90.9
Shanipeth Police Station	67.4	69.2	66.3	65.8	64.3	62.6
Hourly Noise levels at various locations in Kolhapur on 9th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Rajaram Puri	42.0	50.0	65.0	72.0	96.0	98.0
Mahalaxmi Mandir	44.0	46.0	59.0	62.0	64.0	67.0
Khas Baug Maidan	55.0	52.0	69.0	82.0	88.0	92.0
Hourly Noise levels at various locations in Kolhapur on 10th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Rajaram Puri	68.0	78.0	85.0	82.0	74.0	55.0
Mahalaxmi Mandir	64.0	66.0	59.0	52.0	51.0	48.0
Khas Baug Maidan	88.0	87.0	89.0	82.0	78.0	62.0
Hourly Noise levels at various locations in Kolhapur on 13th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Rajaram Puri	76.0	79.0	87.0	88.0	75.0	50.0
Mahalaxmi Mandir	66.0	66.0	60.0	55.0	50.0	47.0
Khas Baug Maidan	90.0	93.0	92.0	86.0	73.0	52.0

Hourly Noise levels at various locations in Kolhapur on 15 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Rajaram Puri	82.0	89.0	87.0	90.0	85.0	80.0
Mahalaxmi Mandir	69.0	73.0	68.0	57.0	55.0	47.0
Khas Baug Maidan	92.0	94.0	88.0	87.0	83.0	80.0
Hourly Noise levels at various locations in Kolhapur on 18 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Rajaram Puri	84.0	86.0	77.0	70.0	65.0	70.0
Mahalaxmi Mandir	78.0	77.0	80.0	79.0	83.0	82.0
Khas Baug Maidan	99.0	100.0	99.0	101.0	100.0	100.0
Hourly Noise levels at various locations in Satara on 9 th Sept.						
Location	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Powai Naka	42.3	40.0	45.0	65.0	70.3	72.3
Moti Chowk	49.0	50.0	54.2	61.3	66.0	70.5
Rajwada	45.5	49.0	55.5	60.1	65.1	67.3
Hourly Noise levels at various locations in Satara on 10 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Powai Naka	73.0	71.0	68.0	67.5	71.3	62.5
Moti Chowk	71.0	73.5	72.1	71.5	69.0	68.0
Rajwada	67.7	71.1	70.0	76.5	67.0	68.0
Hourly Noise levels at various locations in Satara on 13 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Powai Naka	71.0	72.5	70.8	71.0	71.0	65.5
Moti Chowk	69.0	71.0	73.8	75.5	71.0	69.3
Rajwada	67.3	68.0	70.0	71.3	72.5	69.0
Hourly Noise levels at various locations in Satara on 15 th Sept.						
Location	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	22:00-23:00	23:00-24:00
	Day Time	Day Time	Day Time	Day Time	Night Time	Night Time
Powai Naka	74.0	73.8	72.9	67.5	68.0	61.3
Moti Chowk	69.3	71.5	65.0	66.5	65.0	69.0
Rajwada	68.8	69.3	70.1	70.5	68.0	60.3

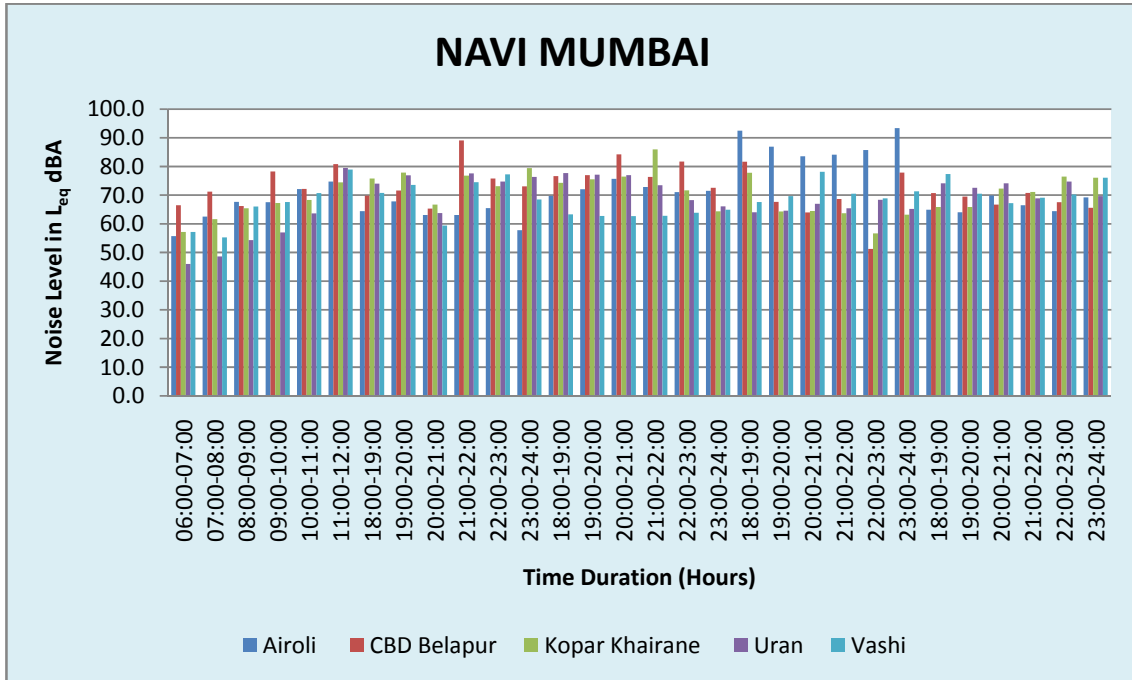


Chart 4.14: Hourly Noise levels from 9th-18th Sept., 2013 in Navi Mumbai

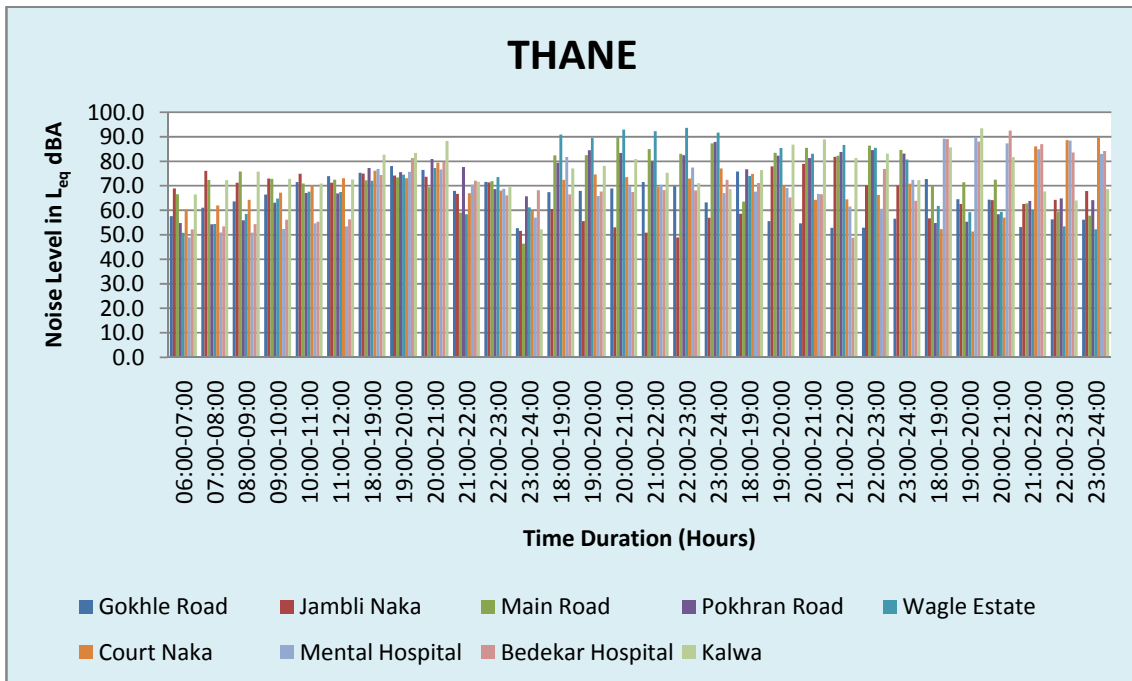


Chart 4.15: Hourly Noise levels from 9th-18th Sept., 2013 in Thane

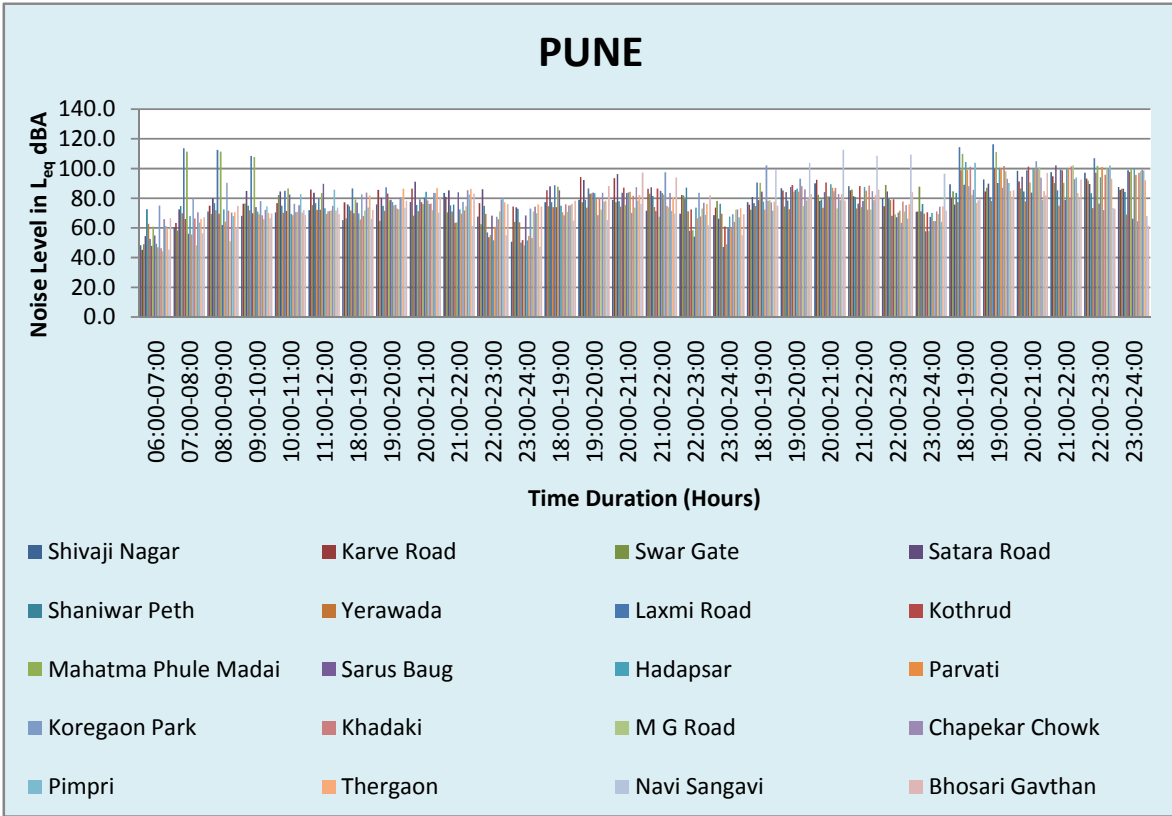


Chart 4.16: Hourly Noise levels from 9th-18th Sept., 2013 in Pune

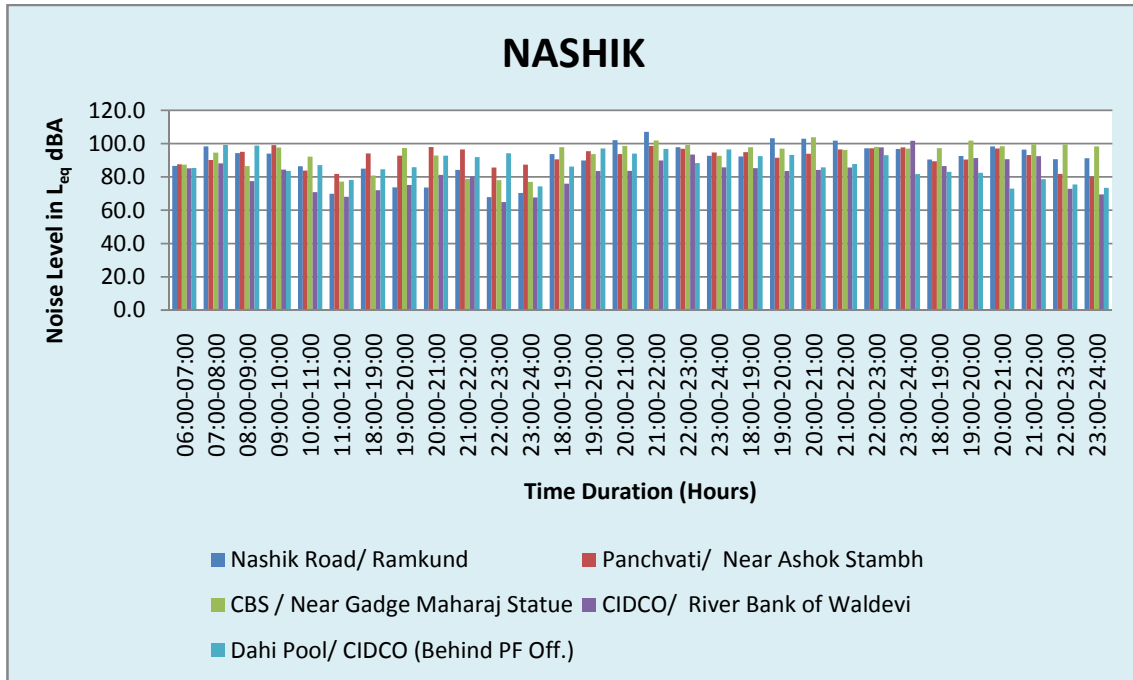


Chart 4.17: Hourly Noise levels from 9th-18th Sept., 2013 in Nashik

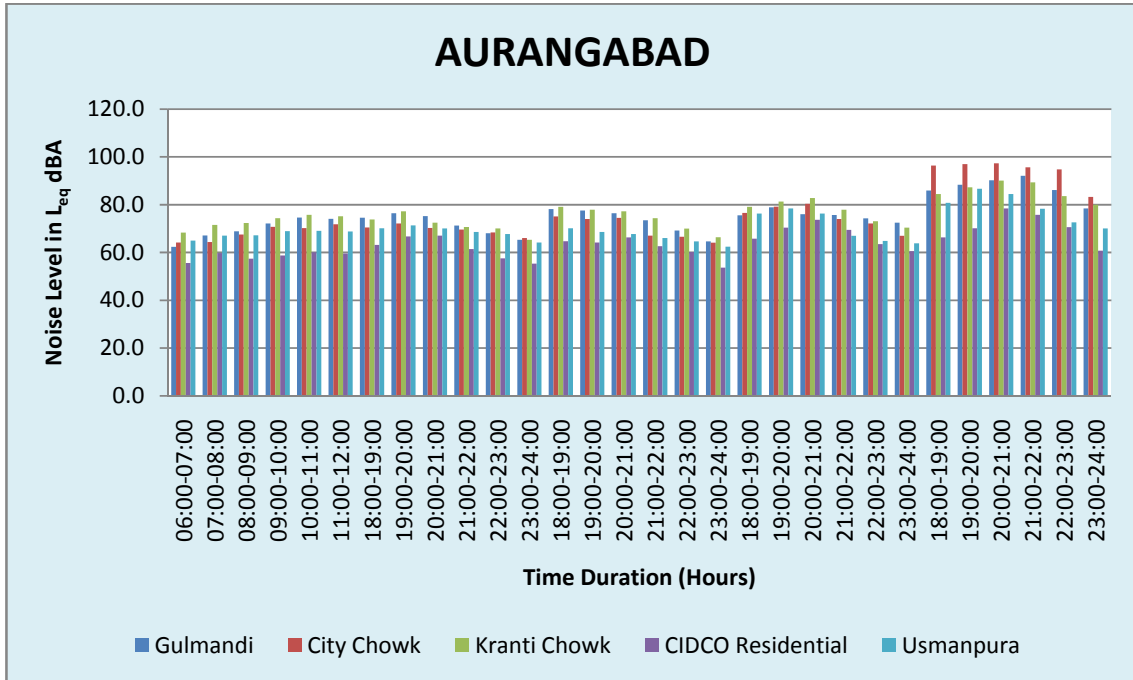


Chart 4.18: Hourly Noise levels from 9th-18th Sept., 2013 in Aurangabad

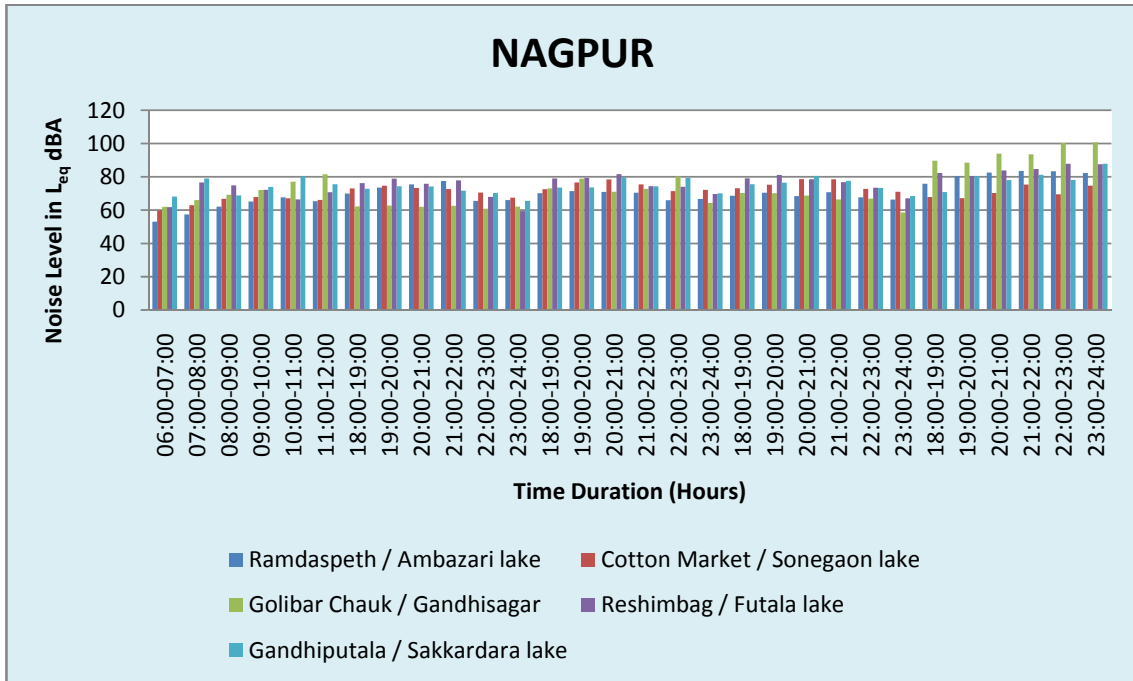


Chart 4.19: Hourly Noise levels from 9th-18th Sept., 2013 in Nagpur

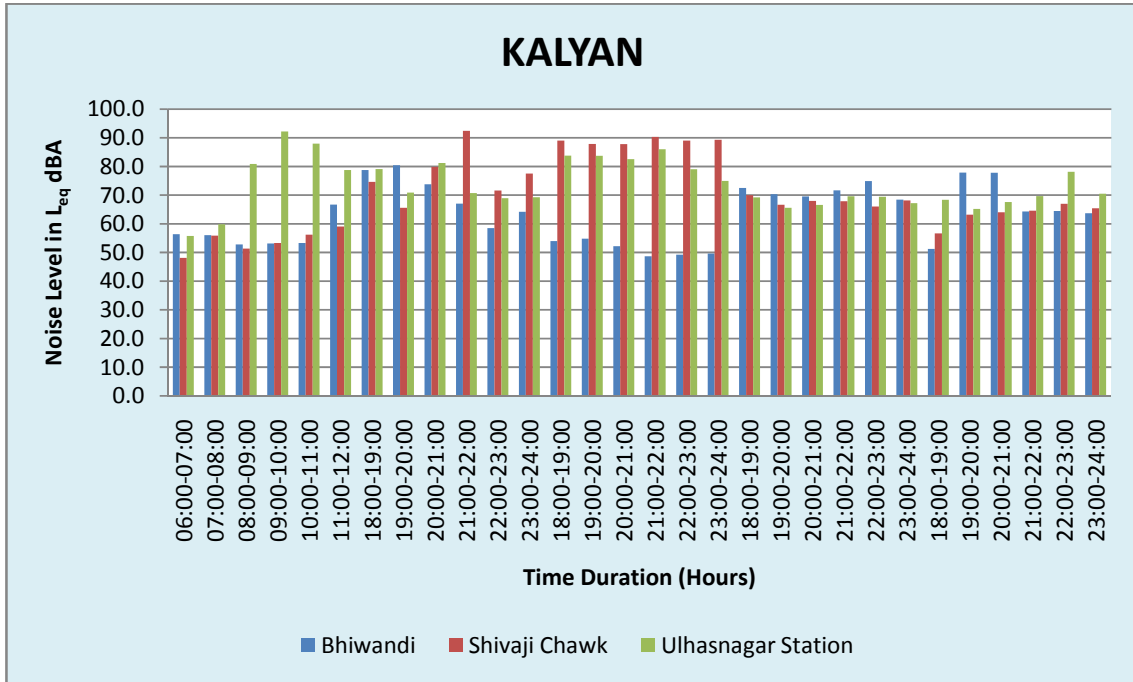


Chart 4.20: Hourly Noise levels from 9th-18th Sept., 2013 in Kalyan

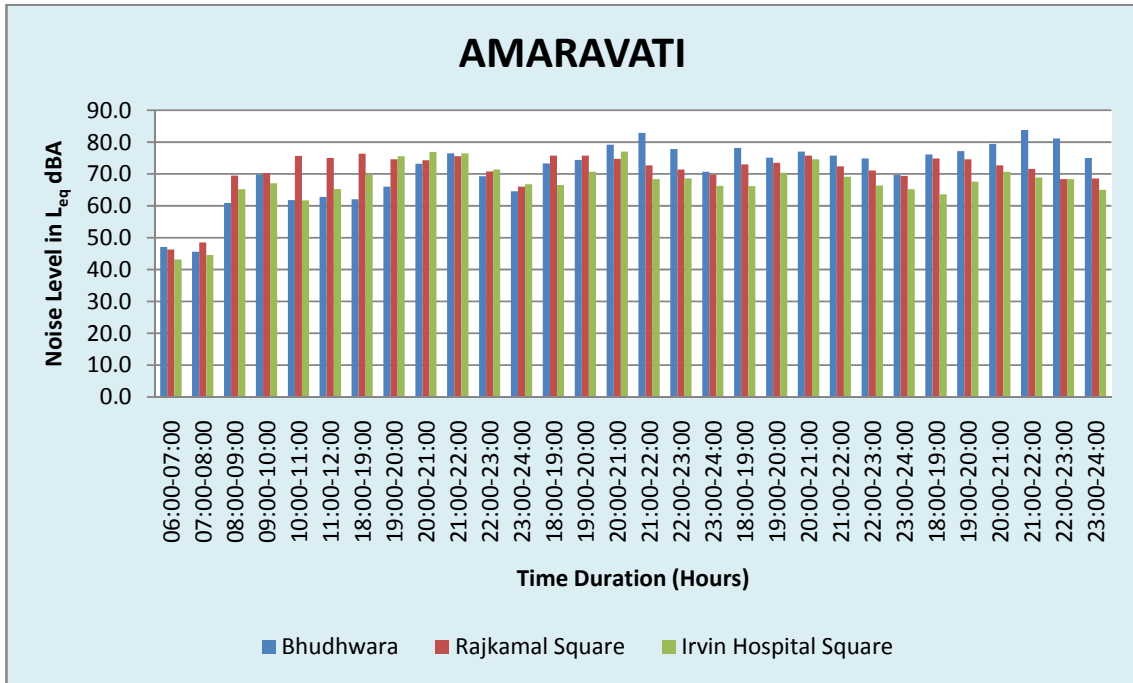


Chart 4.21: Hourly Noise levels from 9th-18th Sept., 2013 in Amaravati

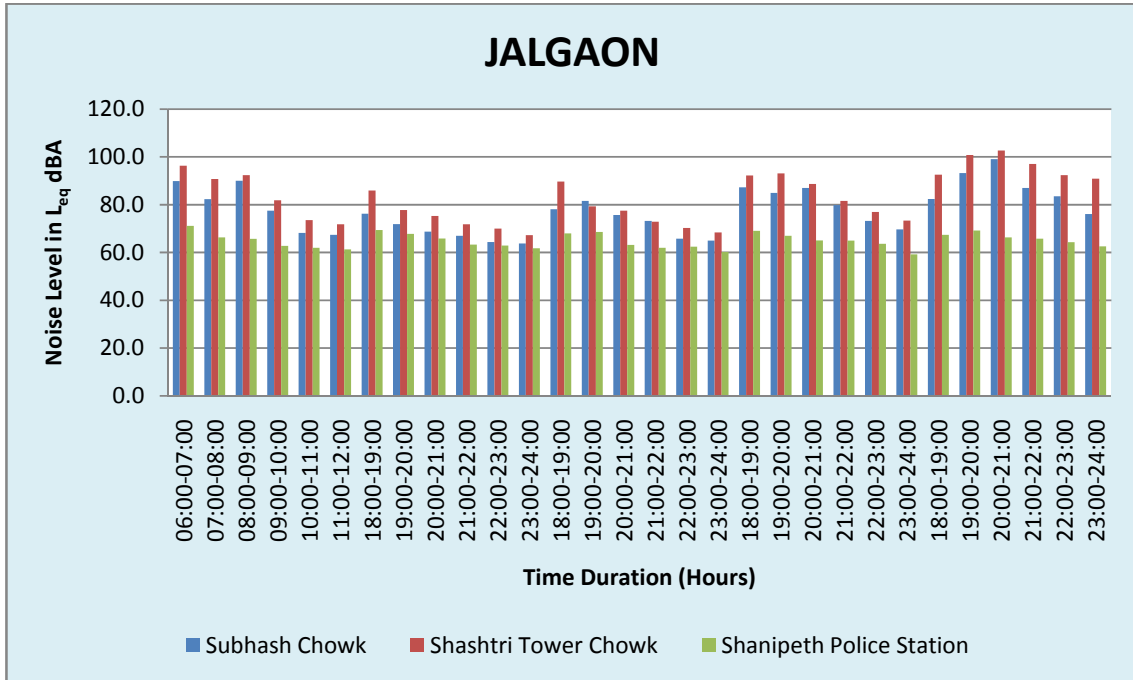


Chart 4.22: Hourly Noise levels from 9th-18th Sept., 2013 in Jalgaon

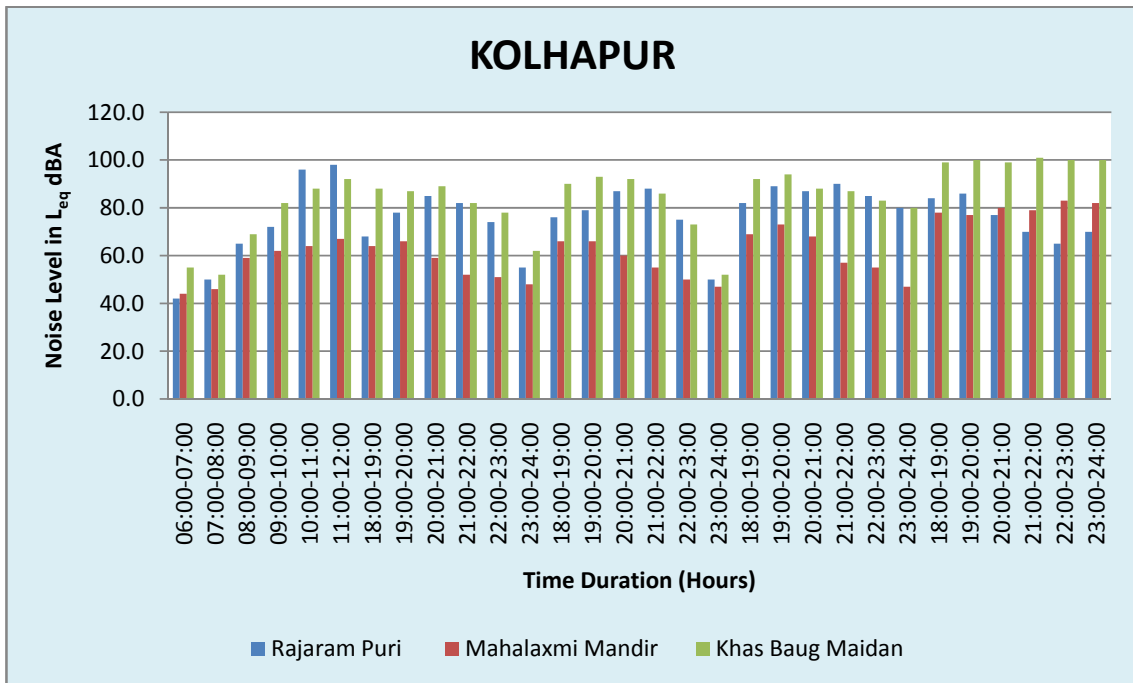


Chart 4.23: Hourly Noise levels from 9th-18th Sept., 2013 in Kolhapur

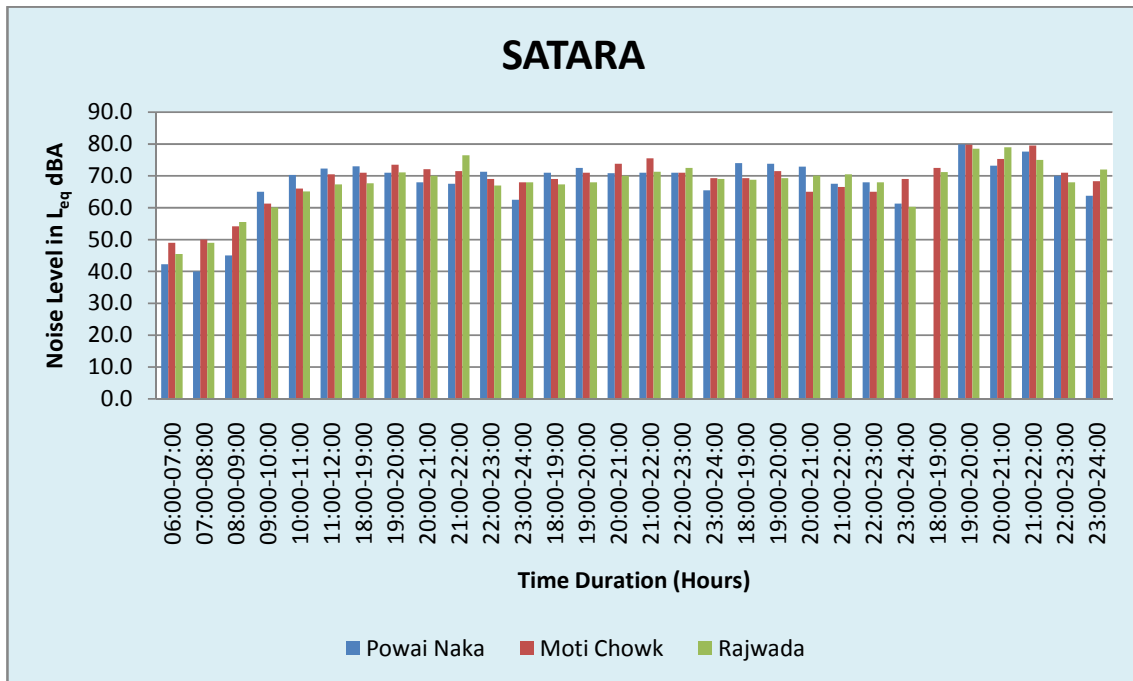


Chart 4.24: Hourly Noise levels from 9th-18th Sept., 2013 in Satara

5. Comparative Study of Noise levels from 2009 to 2013

Table 4.3 shows the maximum and minimum noise levels in last five years during Ganesh Festival. Comparative study shows that noise levels in all the cities especially at Pune and jalgaon increased this year. Maximum and minimum values gives the range of noise levels measured during Ganesh Festival.

Comparative study shows the following results in different cities of Maharashtra:

Mumbai: Comparative study shows that this year have the lowest minimum and maximum noise level (42.7-92.5dBA)in Mumbai as compared to last 5 years.

Navi Mumbai: In Navi Mumbai an increase noise levels is observed this year (46-93.4dBA) as compared to previous year(57-126dBA).

Thane: In Thane, minimum and maximum level of noise increased a bit this year from last year, but is comparatively lower than the noise level on 2010.

Pune: There is a tremendous increase in the noise level of Pune this year (44.3-116.3dBA) and also showed the high noise level in the past 5 years.

Nashik: In Nashik, there is a decrease in noise level this year (67-107dBA) as compared to last year noise level (59.9-112.1dBA).

Aurangabad: There is no much change in the noise level at Aurangabad this year as compared to 2012.

Nagpur: Both the maximum and minimum noise levels this year (53.1-100.7dBA) in Nagpur is decreased as compared to 2012 (61.1-104.4dBA).

Kalyan: There is a great decrease in the maximum and minimum noise level at Kalyan this year (48.2-92.5dBA) than the pervious 2 years i.e. 2012 (53-106.9dBA) and 2011 (58.7-107.9dBA).

Amravati: There is a decrease in the minimum noise level and an increase in the maximum noise level at Amaravati this year (43.2-83.8dBA) as compared to noise levels in year 2012(57.7-82.1dBA).

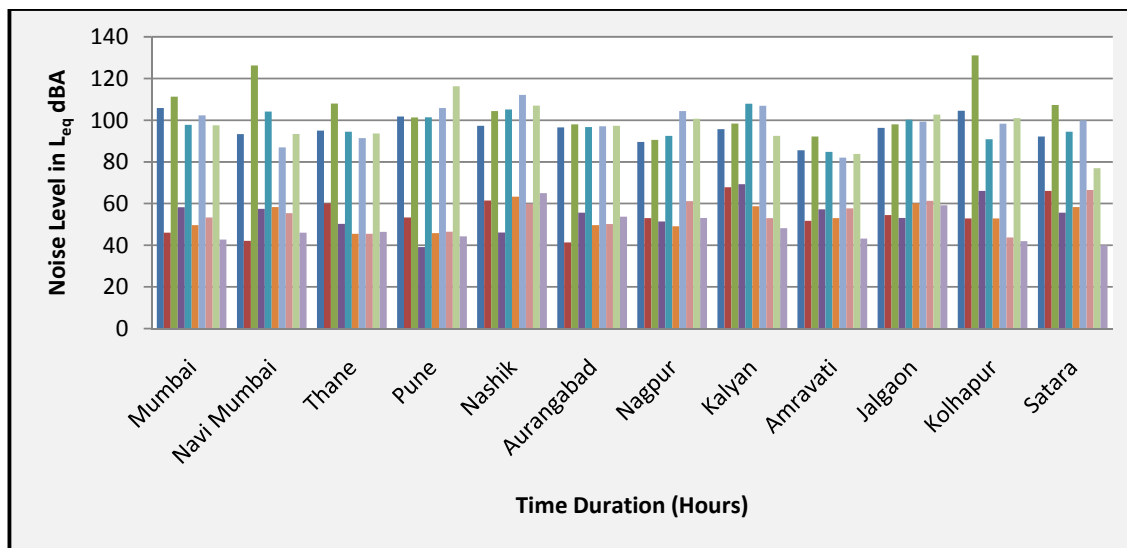
Jalgaon: In Jalgaon, the maximum noise level have increased and the minimum noise level have decreased this year (59.2-102.7dBA) as compared to last year (61.3-99.3dBA).

Kolhapur: Kolhapur showed the highest noise level in the past two years. There is increase in the maximum noise level of Kholapur region as compared to 2011 and 2012 but the minimum noise level have decreased further.

Satara: In Satara, decrease in maximum and minimum noise level is observed this year.

Table 5.1: Noise Levels during Ganesh Festival for last 5 years in different cities of Maharashtra

Sr. No.	City	2009 Noise Levels in L_{eq} dB(A)		2010 Noise Levels in L_{eq} dB(A)		2011 Noise Levels in L_{eq} dB(A)		2012 Noise Levels in L_{eq} dB(A)		2013 Noise Levels in L_{eq} dB(A)	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	Mumbai	105.8	46.0	111.3	58.2	97.8	49.6	102.3	53.3	97.5	42.7
2	Navi Mumbai	93.3	42.1	126.3	57.4	104.2	58.3	87.0	55.4	93.4	46.0
3	Thane	95.0	60.1	108.0	50.3	94.5	45.5	91.4	45.5	93.6	46.4
4	Pune	101.8	53.3	101.3	39.1	101.4	45.8	105.8	46.5	116.3	44.3
5	Nashik	97.3	61.5	104.4	46.1	105.2	63.3	112.1	59.9	107.0	65.0
6	Aurangabad	96.5	41.3	98.0	55.6	96.7	49.6	97.1	50.2	97.3	53.7
7	Nagpur	89.6	53.0	90.6	51.4	92.5	49.1	104.4	61.1	100.7	53.1
8	Kalyan	95.7	67.8	98.4	69.3	107.9	58.7	106.9	53.0	92.5	48.2
9	Amravati	85.6	51.7	92.2	57.2	84.8	53.0	82.1	57.7	83.8	43.2
10	Jalgaon	96.3	54.5	98.0	53.1	100.3	60.2	99.3	61.3	102.7	59.2
11	Kolhapur	104.5	52.9	131.1	66.1	90.9	52.9	98.3	43.7	101.0	42.0
12	Satara	92.2	66.1	107.3	55.6	94.5	58.3	99.9	66.5	76.9	40.0



2008 Noise Levels in L_{eq} dB(A) Max
 2008 Noise Levels in L_{eq} dB(A) Min
 2009 Noise Levels in L_{eq} dB(A) Max
 2009 Noise Levels in L_{eq} dB(A) Min
 2010 Noise Levels in L_{eq} dB(A) Max

2010 Noise Levels in L_{eq} dB(A) Min
 2011 Noise Levels in L_{eq} dB(A) Max
 2011 Noise Levels in L_{eq} dB(A) Min
 2012 Noise Levels in L_{eq} dB(A) Max
 2012 Noise Levels in L_{eq} dB(A) Min

Chart 5.1: Noise Levels during Ganesh Festival for last 5 years in different cities of Maharashtra

6. Conclusion

In the present study, the ambient noise level monitoring has been conducted in which the cumulative result of various urban sources such as traffic, house hold activities construction activities besides the festival related noise in 12 cities at 89 locations for 5 days on 9thSeptember 6 am to 12 pm, and on 10th, 13th, 15th and 18th September 2013 from 6.00 p.m. to 12.00 p.m. The noise levels were found to decrease at Mumbai, Kalyan, Nashik, Nagpur and Satara this year. The highest noise level was found at Pune. At Navi Mumbai, Thane, Aurangabad, Jalgaon and Kolhapur also the noise level was increased. The highest noise level was observed at most of the cities on the last day of Ganesh Festival i.e. on 18th September.

Though the contribution of the festival celebration is significant which is reflected in the hourly noise level variations, the exact contribution of the same is not covered under the scope of work of the present study. However, there is an over all decreasing trend which can be attributed to the public awareness activities carried out by various State Government Agencies and also improved enforcement of the noise regulations.

The ambient noise levels are exceed the standards specified under the Noise Rules, 2000 and therefore, it is necessary to continue the efforts to create more awareness about the noise pollution and also to take effective steps to reduce the noise levels through various initiatives on a long term basis. The study highlights the continual need of such initiatives in a more prioritized manner.

Glimpses of the Event

 <p>Jalgaon - Shanipeth Police Station</p>	 <p>Jalgaon - Shashtri Tower Chowk</p>
 <p>Nagpur - Golibar Chauk</p>	 <p>Nagpur - Reshimbag</p>
 <p>Nashik -</p>	 <p>Pune - Mahatma Phule Madai</p>



Pune - Satara Road



Kolhapur - Mahalaxmi Mandir



Kolhapur - Rajaram Puri



Satara - Powai Naka



Thane - Court Naka



Thane - Main Road- Gaondevi Mandir, Naupada

Annexure – I

Annexure: 1. Detailed List of Locations in Maharashtra

Sr. No.	City	Location Name (details)
1.0	Mumbai	Andheri - Azad Nagar, Sarvajanik Utsav Samiti Sr. 2, Vir Desai Marg
	Mumbai	Bandra- Sarvajanik Ganeshutsav Mandal-Sr.A2329, S.V. Road, Bandra (W)
	Mumbai	Bhandup - Jay Bajrang Mitra Mandal (Bhandup Samrat), Bhandup Station Rd
	Mumbai	Borivali - Manav Mitra Mandal, L.T. Road, Borivali (W), Mumbai - 400092
	Mumbai	Byculla - Sarvajanik Ganeshutsav mandal, Dr. Ambedkar Marg, Byculla (E)
	Mumbai	Chembur (East) - Near Ashish Talao / Ashish Theatre
	Mumbai	Chembur (West) - Sahyadri Krida Mandal Tilak Nagar, Chembur
	Mumbai	Chinchpokali (E) - Lalbaug Raja Sarvajanik Ganeshutsav Mandal
	Mumbai	Chinchpokali (W) - Parsiwadi Mitra Mandal, Auther Road Naka, Sarvajanik Ganeshutsav Mandal
	Mumbai	Dadar (East) - Khodadad Circle, Dadar TT
	Mumbai	Dadar (West) - Sai Ganesh Sadan, Senapati Bapat Marg, Sarvajanik Ganeshutsav Mandal, Sunder Nagar
	Mumbai	Elphinstone - Shiv Sai Sarvajanik Ganeshutsav Mandal, B.M. Marg, Elphinstone Rd
	Mumbai	Ghatkopar - Amar Mitra Mandal, Tilak nagar, Ghatkopar (E)
	Mumbai	Girgaon Chowpati - Akhil Chowpati Bhirvi Lane, Sarvajanik Ganeshutsav
	Mumbai	Grant Road - Saltar Road Sarvjanik Ganeshutsav Mandal, Grant Road (W)
	Mumbai	Juhu Chowpati - Om Kareshver Shiv Mandir (Trust), Fort Juhu Choupati
	Mumbai	Kandivali (East) - Thakur Village
	Mumbai	Kandivali (W) - Balla Mitra Mandal, Behind Poisur Depot, Nr Ganesh Medics
	Mumbai	Khar - Sarvajanik Ganeshutsav Mandal Sr. 1441-34/35, Sharma Building, 4th Road, Opp. Khar Police Station(W)
	Mumbai	Mulund - Sargam Mitra Mandal R.H.B. Road, Mumbai - 400 080
	Mumbai	Mumbai Central - Belasis Road, B.I.T. Chawl, Mumbai Central
	Mumbai	Parel - Sarvajanik Ganeshutsav Mandal Bal Gopal Mandal Parel (W), Tata Mill Compound
	Mumbai	Santacruz (East) - Milan Subway, Neet & Geet Society

	Mumbai	Vikhroli - Balmitra Kala Mandal, Vijay House, Vikhroli Statn Rd, Vikhroli (W)
	Mumbai	Wadala - G.B.S. Sarvajanic Ganeshutsav Mandal, Shree Ram Mandir, Before Wadala Depot Signal,
2.0	Navi Mumbai	Airoli - Traffic Police Chouki (before Mulund Airoli Bridge)
	Navi Mumbai	CBD - MGM Hospital Chowk, Near Police Chowki
	Navi Mumbai	Kopar Khairane - Sector-10, D-Mart Main Road
	Navi Mumbai	Uran - Ganpati Chowk
	Navi Mumbai	Vashi - Shivaji Chowk Near Bus Depot
3.0	Thane	Gokhle Road-Malhar Cinema
	Thane	Jambli Naka- Lake immersion Point
	Thane	Main Road- Gaondevi Mandir, Naupada
	Thane	Pokhran Road- Vartak Nagar Chowk
	Thane	Wagle Estate- Raila Devi Lake
	Thane	Court Naka
	Thane	Mental Hospital
	Thane	Bedekar Hospital
	Thane	Chatrapati Shivaji Maharaj Hospital, Kalwa
4.0	Pune	Shivaji Nagar (Sakhar Sankul)
	Pune	Karve Road (Nul stop)
	Pune	Swar Gate (Tilak Road)
	Pune	Satara Road (Balaji Nagar)
	Pune	Shaniwar Peth (Shanivar Wada)
	Pune	Yerawada (Near Gunjan Theatre)
	Pune	Laxmi Road (Shagun Chowk)
	Pune	Kothrud (Near Shivaji Putala)
	Pune	Mahatma Phule Madai (Near Mandai)
	Pune	Sarus Baug (Mitra Mandal Chowk)
	Pune	Hadapsar (Nera Bhaji Mandai)
	Pune	Deccan (Nataraj Theater)
	Pune	Dagdu Sheth Mandir (City Post Chowk)
	Pune	Alka Chowk (Nera Alka Chowk)
	Pune	Babu Genu Chowk (Near Babu Genu Chowk)
	Pune	Khadaki (Near Bazar)

	Pune	M G Road (Babajan Chowk)
	Pune	Chapekar Chowk (Chinchwadgaon)
	Pune	Pimprigoan - Shastrinagar
	Pune	Thergaon (Dange Chowk)
5.0	Nashik	Nashik Road
	Nashik	Panchvati
	Nashik	CIDCO
	Nashik	CBS
	Nashik	Dahi Pool
6.0	Aurangabad	Gulmandi
	Aurangabad	City Chowk
	Aurangabad	Kranti Chowk
	Aurangabad	CIDCO Residential
	Aurangabad	Usmanpura
7.0	Nagpur	Nashik Road/ Ramkund
	Nagpur	Panchvati/ Near Ashok Stambh
	Nagpur	CBS / Near Gadge Maharaj Statue
	Nagpur	CIDCO/ River Bank of Waldevi
	Nagpur	Dahi Pool/ CIDCO (Behind PF Off.)
8.0	Kalyan	Bajar peth Police station
	Kalyan	Shivaji Chawk
	Kalyan	Camp No 1, Goal Maidan, Ulhasnagar
9.0	Amaravati	Budhwara
	Amaravati	Rajkamal Square
	Amaravati	Irvin Hospital Square
10.0	Jalgaon	Subhash Chowk
	Jalgaon	Shashtri Tower Chowk
	Jalgaon	Shanipeth Police Station
11.0	Kolhapur	Rajaram Puri (Near Rajaram Puri)

	Kolhapur	Laxmi Puri (Near Laxmi Puri)
	Kolhapur	Khas Baug Maidan
12.0	Satara	Powai Naka (Near Powai Naka)
	Satara	Moti Chowk (Near Moti Chowk)
	Satara	Rajwada (Near Rajwada)

Annexure – II

Sound Level Meter MS 6701, Type II



Annexure – III

ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २०००
ची प्रभावीपणे अंमलबजावणी करण्यासाठी
प्राधिकरणाची नियुक्ती करण्याबाबत

महाराष्ट्र शासन

पर्यावरण विभाग, मंत्रालय,

शासन निर्णय क्रमांक : ध्वनीप्र-२००९/प्र.क्र.९५/तांक-१

नविन प्रशासन भवन, १५ वा भजला, माधाम कामा रोड, मुंबई - ४०० ०३२

दिनांक: २१ एप्रिल, २००९

- वाचा - १) शासन निर्णय क्रमांक : ध्वनीप्र-२०००/प्र.क्र.२४/तांक ३, दिनांक १६ ऑगस्ट, २००० आणि दिनांक १५ जून, २००१
- २) मे. उच्च न्यायालयाच्या मुंबई खंडपीठामध्ये दाखल करण्यात आलेल्या सार्वजनिक हिताच्या याचिका क्र. (१) २०५३/२००३, (२) ७४/२००७, (३) ८५/२००७ आणि (४) १/२००९ मधील दिनांक २६/२/२००९ चे आदेश

प्रस्तावना :-

पर्यावरण विभाग, शासन निर्णय क्र. एन.पी./२०००/२४/क्र.३, दिनांक १६/८/२००० व दिनांक १५/०६/२००१ रोजी ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० च्या २ (क) नुसार, राज्यातील पोलीस आयुक्त असलेल्या शहरामध्ये पोलीस उप आयुक्त व इतर ठिकाणी जिल्हा पोलीस अधिक्षक यांना एक रादस्व प्राधिकरण म्हणून ध्वनी प्रदूषण नियमाची अंमलबजावणी करण्यासाठी नियुक्ती करण्यात आली आहे.

मा. उच्च न्यायालय, मुंबई खंडपीठाने घरील याचिकांमध्ये महाराष्ट्र शासन व इतर विभागांनी ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० ची प्रभावी अंमलबजावणी करण्याकरीता दिनांक २५/२/२००९ रोजी ठराविक निर्देश दिलेले आहेत. त्यानुसार स्थानिक स्वराज्य संस्थांनी शहरी भागात शांतता झोन जाहीर करणे आवश्यक आहे.

शासन निर्णय :-

१) मा. उच्च न्यायालयाच्या आदेशानुसार तसेच ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० च्या कलम ३ (५) नुसार स्थानिक स्वराज्य संस्थांनी शहरी भागात शांतता झोन त्परीत जाहीर करून योग्य ते आदेश काढावेत. तसेच शहरात शांतता झोनचे फलक लावून आदेशाची प्रभावी अंमलबजावणी करण्यासाठी योग्य ती प्रसिध्दी करावी.

- १) शैक्षणिक संस्थांच्या सभोवताली १०० मीटर क्षेत्र
- २) सर्व न्यायालयाच्या सभोवताली १०० मीटर क्षेत्र
- ३) रुग्णालयाच्या सभोवताली १०० मीटर क्षेत्र

२) ध्वनी प्रदूषणाची घाबती पातळी व निरनिराळे प्रदूषण स्रोत विचारात घेता, शासनाच्या निरनिराळ्या विभागांनी सधःस्थितीत ते राबवीत असलेल्या नियमाद्वारे ध्वनी प्रदूषण नियंत्रण व नियमनाची अंमलबजावणी करावी. त्याकरिता परिशिष्ट १ मध्ये नमूद वेळ्याप्रमाणे, शासनाच्या संबंधित विभागांच्या अधिपत्याखालील संस्थांच्या अधिकाऱ्यांना पदनाम प्राधिकरण म्हणून जाहीर करण्यात येत आहे. याबाबत संबंधित

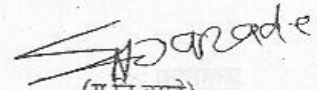
रोटार/इच-०१००[४००-५-२००९]-१

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- A. विभागांनी स्वतंत्र आदेश निर्गमित करावेत. सदर प्राधिकरण, ते राबवित असलेल्या नियमाच्या तरतुदीनुसार तसेच ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० च्या तरतुदीनुसार ध्वनी प्रदूषण नियंत्रण व नियमनाधीन कार्यवाही करण्यास सक्षम असेल.
- ३) ध्वनी प्रदूषण करणारे उपकरणे / स्रोत जसे D.G. Sets (15-500 KVA); Coal Washeries ; Fire Crackers Generator Sets with Diesel (upto 1000 KVA) manufactured on or after 1st July, 2003 ; Vehicles at manufacturing stage from the year, 2003 and 1st April, 2005 respectively as well as Noise Limits for Automobiles and Domestic appliances and construction equipments at the manufacturing stage laid down under the provisions of the Environment (Protection) Act, 1986 and Rules made there under इत्यादींची, सभोयतालच्या हवेतील ध्वनी प्रदूषण गुणवत्तेच्या विहित मर्यादा परिशिष्ट २ मध्ये नमूद केल्याप्रमाणे असेल.
- ४) या शासन निर्णयान्वये, पर्यावरण विभागाने यापूर्वी दिनांक १६ ऑगस्ट, २००० आणि दिनांक १५ जून, २००१ रोजी या विषयाबाबत निर्गमित केलेला शासन निर्णय खारीज करण्यात येत आहे. हा शासन निर्णय निर्गमित झाल्याच्या दिनांकापासून लागू राहील.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

B.


(ग.नि.वराडे)
संचालक (पर्यावरण)

प्रत माहितीसाठी :-

मा. मुख्यमंत्र्यांचे प्रधान सचिव

मा. उपमुख्यमंत्र्यांचे प्रधान सचिव

मा. मुख्यसचिव

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प्रधान सचिव, नगर विकास विभाग (२), मंत्रालय

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सचिव, गृह विभाग (परिवहन),

सचिव, पर्यावरण

मा. मंत्री (पर्यावरण), यांचे खाजगी सचिव,

मा. राज्यमंत्री (पर्यावरण), यांचे खाजगी सचिव,

सर्व मा. मंत्री / राज्यमंत्री यांचे खाजगी सचिव

सर्व जिल्हाधिकारी

सर्व पोलीस आयुक्त / उप आयुक्त

सर्व जिल्हा पोलीस अधिक्षक / उप अधिक्षक

पर्यावरण विभाग सर्व अधिकारी / कार्यासन / निवडनस्ती - तांक १

परिशिष्ट - १

एच-०१०० -१३

ध्वनी प्रदूषण व नियमन व नियंत्रणाची अंमलबजावणी करण्यासाठी शासनाच्या अधिपत्याखाली असलेल्या संस्थांमधील संबंधीत अधिका-याची पदनाम प्राधिकरण म्हणून नियुक्ती

Sr. No	Officer /Agency	Concerned Department	Duties
1.	District Magistrate, Sub-Divisional Magistrate,	Revenue	Corresponding Rules for the enforcement of the Noise Pollution Control measures within their respective jurisdiction.
2.	Police Commissioner or any other officer not below the rank of the Deputy Superintendent of Police designated for the maintenance of Ambient Air Quality Standards, as mentioned in the Rule 2(c) of Noise Pollution(Regulation and Control) Rules, 2000.	Home	The Police Authorities will be responsible for initiating further legal actions in respect of the violations..
3.	Municipal Commissioner, Additional/Deputy Municipal Commissioner/ Chief Officer of Municipal Council/Committee Govt. of Maharashtra not below the rank of the Deputy Superintendent of Police.	Urban Development	<p>Corresponding Rules for the enforcement of noise standards laid down under the Environment (Protection) Rules, 1986 at source for construction projects, utilities for buildings (ACs, DG sets etc.); domestic appliances, development and other activities in their jurisdiction.</p> <p>The urban local bodies shall be responsible for demarcation of the silent zones as per the Noise Rules, 2000 and displaying the same adequately.</p> <p>The urban local bodies shall include an Action Plan for noise control in the Environmental Status Report submitted by them annually, including noise monitoring and noise mapping studies.</p> <p>The Local Body and Urban Development Deptt., Govt. of Maharashtra will not grant any permissions for development activities in consistent with or in conflict with the categorization of zone. In case of overlapping zones, stringent standards will prevail over in that particular area.</p>
4.	Registrar /Head Master of the Educational Institutions duly approved by the concerned Government not below the rank of the Deputy Superintendent of Police	Higher & Technical Education/ School Education	Corresponding Rules for the enforcement and maintenance of the Ambient Noise Standards laid down for domestic appliances, automobiles etc. in respect of any activity in its jurisdiction.
5.	Dean/Superintendent of the Government Hospitals not below the rank of the Deputy Superintendent of Police	Public Health	Corresponding Rules for the enforcement and maintenance of the Ambient Noise Standards laid down for domestic appliances, automobiles etc. in respect of any activity in its

एच-०१०० -२

A.

6.	Head of M.M.R.D.A., M.S.R.D.C., C.I.D.C.O., having local jurisdiction constituted under various Laws and Public Works Department.	Urban Development	<p>jurisdiction.</p> <p>Corresponding Rules for the enforcement and maintenance of Noise Standards laid down under the Environment (Protection) Rules, 1986 at source for construction projects, utilities for buildings (ACs, DG sets etc.), domestic appliances, development and other activities in their jurisdiction</p> <p>These Developmental Authorities should include adequate noise abatement measures in their project activities such as noise barriers to the bridges and flyovers, tree plantation for roads etc.</p>
7.	Member Secretary and any officer Maharashtra Pollution Control Board not below the rank of the Deputy Superintendent of Police	Environment Department	<p>(i) Monitoring of Ambient Noise Levels in case of specific requests from other authorities referred in the table and communicating the results to the respective Authorities for further necessary action at their end.</p> <p>(ii) For the enforcement of Noise Pollution Control Measures and Standards in industrial areas.</p>
8.	<p>(i) Any officer from the State Transport Department / Deputy Regional Transport Officer in their respective jurisdiction not below the rank of the Deputy Superintendent of Police</p> <p>(ii) Head of Maharashtra State Road Transport Corporation or any officer/ Depot Manager not below the rank of the Deputy Superintendent of Police.</p> <p>(iii) Traffic Police Authorities not below the rank of the Deputy Superintendent of Police</p>	Home Department (Transport)	<p>Enforcement and maintenance of the Noise Standards laid down under Environment (Protection) Rules, 1986 and Motor Vehicles Act, 1939 for the new and operating vehicles within their respective jurisdiction.</p> <p>The noise levels generated by the In-use vehicles should be monitored while grant of Pollution Under Control Certificate.</p>

E

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परिशिष्ट- २

Schedule
(Under rule 3(1) and 4(1)) of Noise Pollution (Control and Regulation) Rules, 1999

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

- i. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- ii. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- iii. Silence Zone is defined as an area comprising not less than 100 meters around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
- iv. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq : It is an energy mean of the noise level, over a specified period.

2. Standards / Guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) Sets.

(A) Noise Standards for DG sets (15-500 KVA)

The total sound power level, L_w of a DG set should be less than, $94 + 10 \log_{10} (KVA)$, dB(A), at the manufacturing stage, where, KVA is the nominal power rating of a DG set. This level should fall by 5 dB(A) every five years, till 2007, i.e. in 2002 and then in 2007

(B) Mandatory acoustic enclosure/acoustic treatment of room for stationary DG sets (5KVA and above).

Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.

The acoustic enclosure / acoustic treatment of the room should be designed for minimum 25 dB (A) Insertion Loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/acoustic treatment. Under such circumstances, the performance may be checked for noise reduction upto actual ambient noise level, preferably in the night time). The measurement for Insertion Loss may be done at different points at 0.5 m from the acoustic enclosure/room, and then averaged.

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The DG set should also be provided with proper exhaust muffler with insertion loss of minimum 25dB (A).

(C) Guidelines for the manufacturers/users of DG sets (5 KVA and above).

01. The manufacturer should offer to the user a standard acoustic enclosure of 25 dB(A) insertion Loss and also a suitable exhaust muffler, with Insertion Loss of 25 dB(A).
02. The user should make efforts to bring down the noise levels due to the D.G. set, outside his premises, within the ambient noise requirements by proper siting and control measures.
03. The manufacturer should furnish noise power levels of the un silenced DG sets as per standards prescribed under (A).
04. The total sound power level of a D.G. set, at the user's end, shall be within 2 dB(A) of the total sound power level of the DG set, at the manufacturing stage as prescribed under (A).
05. Installation of a DG set must be strictly in compliance with the recommendations of the DG set manufacturer.
06. A proper routine and preventive maintenance procedure for the DG set should be set and followed in consultation with the DG set manufacturer, which would help to prevent noise levels of the DG set from deteriorating with use.

3. Noise Level Standards for Coal Washeries

Operational / Working Zone -- not to exceed 85 dB(A) Leq for 8 hours exposure.

The Ambient Air Quality Standards in respect of noise as notified under Environment (Protection) Rules, 1986 shall be followed at the boundary line of the coal washery.

Code of Practice of Coal Washery

Water or Water mixed chemical shall be sprayed at all strategic coal transfer points such as conveyors, loading/unloading points etc. As far as practically possible conveyors, transfer points etc. shall be provided with enclosures.

- * The crushers/pulverizers of the coal washeries shall be provided with enclosures, fitted with suitable air pollution control measures and finally emitted through a stack of minimum height of 30m, conforming particulate matter emission standards of 150 mg/Nm³ or provided with adequate water sprinkling arrangement.
- * Water sprinkling by using fine atomizer nozzles arrangement shall be provided on the coal heaps and on land around the crushers/pulverisers.
- * Area, in and around the coal washery shall be pucca either asphalted or concreted.
- * Water consumption in the coal washery shall not exceed 1.5 cubic meter per tonne of coal.
- * The efficiency of the settling ponds of the waste water treatment system of the coal washery shall not be less than 90%.
- * Green belt shall be developed along the road side, coal handling plants, residential complex, office building and all around the boundary line of the coal washery.
- * Storage bunkers, hoppers, rubber decks in chutes and centrifugal chutes shall be provided with proper rubber linings.

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* Vehicles movement in the coal washery area shall be regulated effectively to avoid traffic congestion. High pressure horn shall be prohibited. Smoke emission from heavy duty vehicle operating in the coal washeries should conform the standards prescribed under Motor Vehicle Rules, 1989.

4. Noise Standards for fire-crackers

A.(i) The manufacturer, sale or use of fire-crackers generating noise level exceeding 125 dB(A) or 145 dB(C)_{PK} at 4 meters distance from the point of bursting shall be prohibited.

(ii) For individual fire-cracker constituting the series (joined fire crackers), the above mentioned limit be reduced by $5 \log_{10} (N)$ dB, where N=Number of crackers joined together.

B. The broad requirements for measurement of noise from fire-crackers shall be-

(i) The measurements shall be made on a hard concrete surface of minimum 5 meter diameter or equivalent.

(ii) The measurement shall be made in free field conditions i.e., there shall not be any reflecting surface upto 15 meter distance from the point of bursting.

(iii) The measurement shall be made with an approved sound level meter.

C. The Department of Explosives shall ensure implementation of these standards.

5. Noise Limits for Generator Sets run with diesel

Noise limit for diesel generator sets (upto 1000 KVA) manufactured on or after 1st July, 2003

The maximum permissible sound pressure level for new diesel generator (DG) sets with rated capacity upto 1000 KVA, manufactured on or after the 1st July, 2003 shall be 75 dB(A) at 1 meter from the enclosure surface.

The diesel generator sets should be provided with integral acoustic enclosure at the manufacturing stage itself.

The implementation of noise limit for these diesel generator sets shall be regulated as given in below mentioned paragraph.

Requirement of certification

Every manufacturer of engine or every importer of engine or product must have valid certificates of Type Approval and certificates of Conformity of Production for each year, for all engine models being manufactured or for all engines or product models being imported, after the effective date with the emission limit as specified in earlier paragraph.

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6. (1) Noise limits for vehicles applicable at manufacturing stage
from the year, 2003.

Sr.No.	Type of Vehicle	Noise Limits dB(A)	Date of Implementation
(1)	(2)	(3)	(4)
1.	Two Wheeler		1 st January, 2003
	Displacement upto 80 cm ³	75	
	Displacement more than 80 cm ³ but upto 175 cm ³	77	
	Displacement more than 175 cm ³	89	
2.	Three Wheeler		1 st January, 2003
	Displacement upto 175 cm ³	77	
	Displacement more than 175 cm ³	80	
3.	Passenger Car	75	1 st January, 2003
4.	Passenger or Commercial Vehicles		1 st July, 2003
	Gross vehicle weight upto 4 tonnes	80	
	Gross vehicle weight more than 4 tonnes but upto 12 tonnes	83	
	Gross vehicle weight more than 12 tonnes	85	

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(2) Noise Limits for vehicles at manufacturing stage applicable on and from 1st April, 2005

Sr.No.	Type of vehicles	Noise Limits
1.0	Two Wheelers	
1.1	Displacement upto 80 cc	75
1.2	Displacement more than 80 cc but upto 175 cc	77
1.3	Displacement more than 175 cc	80
2.1	Three Wheelers	
2.1	Displacement upto 175 cc	77
2.2	Displacement more than 175 cc	80
3.0	Vehicles used for the carriage of passengers and capable of having not more than nine seats, including the driver's seat	74
4.0	Vehicles used for the carriage of passengers having more than nine seats including the driver's seat and a maximum Gross Vehicle Weight (GVW) of more than tonnes	
4.1	With an engine power less than 150KW	78
4.2	With an engine power of 150 KW or above	80
5.0	Vehicles used for the carriage of passengers having more than nine seats including the driver's seat: Vehicle used for the carriage of goods.	
5.1	With a maximum GVW not exceeding 2 tonnes	76
5.2	With a maximum GVW greater than 3 tonnes but not exceeding 3.5 tonnes	77
6.0	Vehicles used for the transport of goods with a maximum GVW exceeding 3.5 tonnes	
6.1	With an engine power less than 75 KW	77
6.2	With an engine power of 75 KW or above but less than 150KW	78
6.3	With an engine power of 150 KW or above	80

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