

# REPORT ON AMBIENT NOISE MONITORING OF GANESH FESTIVAL- 2014



# MAHARASHTRA POLLUTION CONTROL BOARD

KALPATARU POINT, 3RD FLOOR, SION (EAST), MUMBAI-400022

WEBSITE: WWW MPCB GOV IN

September, 2014

#### **FOREWORD**

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# महाराष्ट्र प्रदूषण नियंत्रण मंडळ

MAHARASHTRA POLLUTION CONTROL BOARD

Ganesh Festival is one of the main festivals in Maharashtra. Large numbers of people participate in the immersion procession culminating the 10 days festival. Vocal music and musical instruments during the festival often lead to high levels of noise. 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 the 5 days period during Ganesh Festival i.e. on 29<sup>th</sup> & 30<sup>th</sup> Augus'2014t and 3<sup>rd</sup>, 6<sup>th</sup> & 8<sup>th</sup>September 2014 from 18.00 hrs. to 24.00 hrs continuously for 6 hours, except on 29<sup>th</sup> Aug' monitoring was done for 24hrs for each location, comprising residential, commercial and silence zones.

This report 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.

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, Joint Director and Shri S.C.Kollur, Scientific Officer are appreciated.

September, 2014

(Rajeev Kumar Mital, IAS) Member Secretary

# **CONTENTS**

ABBRI	EVIATIONS	9
INTRO	DDUCTION	10
ABOU <sup>-</sup>	T NOISE	11
AMBIE	ENT NOISE MONITORING DURING GANESH FESTIVAL - 2014	12
METH	ODOLOGY OF THE SURVEY	12
	_TS	
1. NOIS	E LEVELS ON 29 <sup>™</sup> AUGUST, 2014	
1. 2.	NAVI MUMBAI	
2. 3.	THANE	
3. 4.	PUNE	
5.	Nashik	
6.	AURANGABAD	
7.	NAGPUR	
8.	KALYAN	
9.	Amravati	
	JALGAON	
	KOLHAPUR	
	SATARA	
II.	Noise Levels on 30 <sup>th</sup> August, 2014	
1.	MUMBAI	
2.	Navi Mumbai	37
3.	THANE	38
4.	PUNE	39
5.	Nashik	41
6.	AURANGABAD	41
7.	Nagpur	
8.	Kalyan	
9.	Amravati	
	JALGAON	
	Kolhapur	
	Satara	
III.	NOISE LEVELS ON 3 <sup>RD</sup> SEPTEMBER, 2014	
1.	Mumbai	_
2.	Navi Mumbai	
3.	THANE	
4.	PUNE	
5.	NASHIK	
6.	AURANGABAD	
7. 8.	NagpurKalyan	
8. 9.	AMRAVATI	
	JALGAON	
	KOLHAPUR	
	SATARA	
IV.	NOISE LEVELS ON 6 <sup>TH</sup> SEPTEMBER, 2014	
1.	MUMBAI	
2.	NAVI MUMBAI	
2. 3.	THANE	
3. 4.	PUNE	
5.	Nashik	
5. 6	ALIDANICADAD	

7.	Nagpur	69
8.	Kalyan	
9.	Amravati	71
10.	Jalgaon	72
11.	Kolhapur	73
12.	SATARA	74
V. Noi	SE LEVELS ON 8 <sup>TH</sup> SEPTEMBER, 2014	75
1.	Mumbai	76
2.	Navi Mumbai	78
3.	THANE	
4.	Pune	79
5.	Nashik	81
6.	Aurangabad	
7.	Nagpur	
8.	KALYAN	
9.	AMRAVATI	85
10.	5/120/1011	
	KOLHAPUR	
12.	SATARA	88
СОМЕ	PARATIVE STUDY OF NOISE LEVELS	89
CONC	CLUSION	91
DEETI	NITIONS	92
PLI II	AT LTO IAO	····· • • • • • • • • • • • • • • • • •

# **List of Tables**

Table 3.1: Standards of Noise Levels under EPA (1986): Noise Pollution (Regulation & Control) Rules, 2000	12
Table 5.1: Noise Monitoring Locations in Maharashtra during Ganesh Festival: 2014.	13
Table 6.1: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Mumbai	14
Table 6.2: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Navi Mumbai	17
Table 6.3: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Thane	18
Table 6.4: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Pune	20
Table 6.5: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Nashik	23
Table 6.6: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Aurangabad	24
Table 6.7: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Nagpur	26
Table 6.8: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Kalyan	27
Table 6.9: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Amravati	29
Table 6.10: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Jalgaon	30
Table 6.11: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Kolhapur	32
Table 6.12: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29 <sup>th</sup> August, 2014 in Satara	33
Table 6.13: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Mumbai	35
Table 6.14: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Navi Mumbai	37
Table 6.15: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Thane	38
Table 6.16: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Pune	39

Table 6.17: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Nashik	41
Table 6.18: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Aurangabad	42
Table 6.19: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Nagpur	43
Table 6.20: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Kalyan	44
Table 6.21: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Amravati	44
Table 6.22: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Jalgaon	45
Table 6.23: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Kolhapur	46
Table 6.24: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30 <sup>th</sup> August, 2014 in Satara	47
Table 6.25: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Mumbai	48
Table 6.26: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Navi Mumbai	50
Table 6.27: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Thane	51
Table 6.28: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Pune	52
Table 6.29: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Nashik	54
Table 6.30: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Aurangabad	55
Table 6.31: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Nagpur	56
Table 6.32: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Kalyan	57
Table 6.33: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Amravati	58
Table 6.34: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Jalgaon	59
Table 6.35: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Kolhapur	60

Table 6.36: Equivalent Continuous ( $L_{\text{Aeq}}$ ) dB(A), Minimum ( $L_{\text{min}}$ ) and Maximum ( $L_{\text{max}}$ ) Noise Levels on 3 <sup>rd</sup> September, 2014 in Satara	61
Table 6.37: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Mumbai	62
Table 6.38: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Navi Mumbai	64
Table 6.39: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Thane	65
Table 6.40: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Pune	66
Table 6.41: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Nashik	68
Table 6.42: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Aurangabad	69
Table 6.43: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Nagpur	70
Table 6.44: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Kalyan	70
Table 6.45: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Amravati	71
Table 6.46: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Jalgaon	72
Table 6.47: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Kolhapur	73
Table 6.48: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Satara	74
Table 6.49: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Mumbai	76
Table 6.50: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Navi Mumbai	78
Table 6.51: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Thane	78
Table 6.52: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Pune	80
Table 6.53: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Nashik	81
Table 6.54: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on $8^{th}$ September, 2014 in Aurangabad	82

Table 6.55: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Nagpur	83
Table 6.56: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on $8^{th}$ September, 2014 in Kalyan	84
Table 6.57: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on $8^{th}$ September, 2014 in Amravati	85
Table 6.58: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on 6 <sup>th</sup> September, 2014 in Jalgaon	86
Table 6.59: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on $8^{th}$ September, 2014 in Kolhapur	87
Table 6.60: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) andMaximum ( $L_{max}$ ) Noise Levels on 8 <sup>th</sup> September, 2014 in Satara	88

# **List of Charts**

Chart 6.1: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Mumbai (Day Time)
Chart 6.2: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Mumbai (Night Time)
Chart 6.3: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Navi Mumbai (Day Time) 17
Chart 6.4: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Navi Mumbai(Night Time) 18
Chart 6.5: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Thane (Day Time)
Chart 6.6: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Thane (Night Time)
Chart 6.7: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Pune (Day Time)
Chart 6.8: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Pune (Night Time)
Chart 6.9: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Nashik (Day Time)
Chart 6.10: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Nashik (Night Time)
Chart 6.11: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Aurangabad (Day Time) 25
Chart 6.12: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Aurangabad(Night Time) 25
Chart 6.13: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Nagpur (Day Time)
Chart 6.14: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Nagpur (Night Time)
Chart 6.15: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Kalyan (Day Time)
Chart 6.16: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Kalyan (Night Time)
Chart 6.17: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Amravati (Day Time) 29
Chart 6.18: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Amravati (Night Time) 30
Chart 6.19: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Jalgaon (Day Time)
Chart 6.20: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Jalgaon (Night Time) 31
Chart 6.21: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Kolhapur (Day Time) 32
Chart 6.22: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Kolhapur (Night Time) 33
Chart 6.23: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Satara (Day Time)
Chart 6.24: Hourly Noise levels on 29 <sup>th</sup> August, 2014 in Satara (Night Time)
Chart 6.25: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Mumbai
Chart 6.26: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Navi Mumbai
Chart 6.27: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Thane
Chart 6.28: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Pune

Chart 6.29: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Nashik 4
Chart 6.30: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Aurangabad4
Chart 6.31: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Nagpur 4
Chart 6.32: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Kalyan 4
Chart 6.33: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Amravati 4
Chart 6.34: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Jalgaon 4
Chart 6.35: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Kolhapur 4
Chart 6.36: Hourly Noise levels on 30 <sup>th</sup> August, 2014 in Satara4
Chart 6.37: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Mumbai
Chart 6.38: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Navi Mumbai
Chart 6.39: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Thane 5
Chart 6.40: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Pune
Chart 6.41: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Nashik
Chart 6.42: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Aurangabad 5
Chart 6.43: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Nagpur 5
Chart 6.44: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Kalyan 5
Chart 6.45: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Amravati
Chart 6.46: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Jalgaon 6
Chart 6.47: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Kolhapur 6
Chart 6.48: Hourly Noise levels on 3 <sup>rd</sup> September, 2014 in Satara 6
Chart 6.49: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Mumbai 6
Chart 6.50: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Navi Mumbai
Chart 6.51: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Thane 6
Chart 6.52: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Pune 6
Chart 6.53: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Nashik 6
Chart 6.54: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Aurangabad 6
Chart 6.55: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Nagpur
Chart 6.56 Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Kalyan
Chart 6.57: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Amravati

Chart 6.58: Hourly Noise levels on 6" September, 2014 in Jalgaon
Chart 6.59: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Kolhapur
Chart 6.60: Hourly Noise levels on 6 <sup>th</sup> September, 2014 in Satara
Chart 6.61: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Mumbai
Chart 6.62: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Navi Mumbai
Chart 6.63: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Thane
Chart 6.64: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Pune
Chart 6.65: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Nashik
Chart 6.66: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Aurangabad
Chart 6.67: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Nagpur
Chart 6.68 Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Kalyan 8
Chart 6.69: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Amravati
Chart 6.70: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Jalgaon
Chart 6.71: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Kolhapur 8
Chart 6.72: Hourly Noise levels on 8 <sup>th</sup> September, 2014 in Satara

## **Abbreviations**

СРСВ	Central Pollution Control Board
dB	Decibel
dB(A)	Decibels with "A" weighting
EPA	Environmental Protection Act, 1986
Hz	Hertz
МРСВ	Maharashtra Pollution Control Board
KHz	Kilo Hertz
$L_Aeq$	Equivalent continuous A-weighted sound pressure level (dB)
<b>L</b> <sub>max</sub>	Maximum sound pressure level (dB)
<b>L</b> <sub>min</sub>	Minimum sound pressure level (dB)
SPL	Sound Pressure Level

#### Introduction

Ganesh Festival is one of the biggest festival in Maharashtra, where the statues of Lord Ganesh is brought to homes, offices, buildings and even in areas in various shapes and sizes and kept for one and half to ten days as the each and everybody's preference and then immerse it in water. The arrangements of the festival begin three to four months prior staring with the making of Lord Ganesha's idols.



The idols of Lord Ganesh is mostly made of plaster of paris, which does not disintegrate easily and hence after immersion float in water and also the color used to decorate and make Ganesh idols attractive turns out poisonous and pollute the water. Also the noise pollution caused during this festival can also not be ignored. The main reason for the noise pollution during this festival is the sounds produced due to bands, music system, crackers, the crowd etc. which are mainly seen while bring the Ganesh for the festival and taking it to immersion. Also the daily bajans which is played using loud music system at mandals and various cultural activities which are carried out in the name of the festival also contribute to the increase in noise level.



Even though promotion of using Eco-friendly Ganesh idols and water and noise pollution less Ganesh festival is going on in an increasing manner, the improvement graph is growing in a very less manner.

#### **About Noise**

The relationship between Ganesh festival and Noise is very intensive, as unfortunately people do not stick to the prescribed noise level during the festival. Over time, the celebrations have been increasing in magnitude and in volume, with sound levels reaching a new high every year.

According to the World Health Organization (WHO), if sound levels exceed 85 decibels, then they could be harmful to human beings. Noise pollution can cause temporary and permanent damage to your health. The extent of the harm depends on the loudness and pressure of the noise as well as the amount of time for which the person has been exposed. While every individual's threshold for noise tolerance is different, children and senior citizens are much more sensitive to loud noises. Pets too have a very low tolerance.

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  $\mu Pa$ . Thus the sound pressure level in dB = 20 log10 P/Pr.

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  $L_{\text{eq}}$  has been calculated to compare the results obtained from various locations.

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

Aven Code	Catagory of Avan	Limits in dB(A) L <sub>eq</sub>	
Area Code	Category of Area	Day time	Night time
А	Industrial area	75	70
В	Commercial area	65	55
С	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.**

## **Ambient Noise Monitoring during Ganesh Festival - 2014**

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 Noise monitoring at 85 locations all over Maharashtra for 5 days period during Ganesh Festival i.e. on 29<sup>th</sup>& 30<sup>th</sup> August and 3<sup>rd</sup>, 6<sup>th</sup>& 8<sup>th</sup>September 2014for 24 hours on the first day of monitoring and from 6 PM to 12 AM in the remaining four days for each location which comprise of residential, commercial and silence zone. The main aim of the project is to determine the trends and variations of noise levels at various areas of the city in different land uses and to create awareness about noise pollution through availability of scientific noise level data.

## **Methodology of the survey**

The noise measurements were done using calibrated Sound Level Meters (Type II) made at the fast response mode keeping in view the quickly changing nature of noise levels, using 'A' filter.

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 5.1: Noise Monitoring Locations in Maharashtra during Ganesh Festival: 2014.

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	
TOTA	L	89	

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

#### **Results**

\*(Hourly Noise Levels on 29<sup>th</sup>& 30<sup>th</sup> August and 3<sup>rd</sup>, 6<sup>th</sup>& 8<sup>th</sup> September, 2014 during Ganesh Festival at different locations in Maharashtra is given in **Annexure V**)

## I. Noise Levels on 29th August, 2014

On this day Ganesh idols were taken to mandals, homes, offices, society's etc. wherethe Lord is worshipped with great devotion and prayer services are performed daily. The Ganesh idols are taken covering its face and accompanied by much singing and dancing.



#### 1. Mumbai

The noise level at Mumbai on the first day of monitoring both during day time and night time is high when compared with the Standards of Noise Levels under EPA (1986): Noise Pollution (Regulation & Control) Rules, 2000. The maximum noise level during day time of 98 dB(A) was observed near Juhu Chowpati and minimum noise level of 48 dB(A) was observed at Bhandup. The maximum noise level of 91 dB(A) during night was observed at Chembur (East) and minimum noise level of 42 dB(A) was observed at Khar.

The maximum average noise level during day time of 80 dB(A) and during night time of 83 dB(A)was observed at Byculla and Chinchpokali (East) respectively.

Table 6.1: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Mumbai

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Andheri	84	49	68	79	74	77
Bandra	96	61	77	68	58	63
Bhandup	95	48	65	62	42	50
Borivali	82	65	71	89	44	60
Byculla	96	67	80	75	59	68
Chembur (E)	80	52	70	91	56	70
Chembur (W)	84	69	76	81	60	69

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aea</sub> Night Time
Chinchpokali (E)	83	57	72	90	77	83
Chinchpokali (W)	84	70	78	87	62	74
Dadar (E)	82	58	68	81	60	67
Dadar (W)	76	67	73	82	66	73
Elphinstone	70	57	65	71	60	67
Ghatkopar	96	60	68	66	44	55
Girgaon Chowpati	87	69	76	82	57	72
<b>Grant Road</b>	86	64	75	85	69	77
Juhu Chowpati	98	59	74	76	45	63
Kandivali (E)	78	51	65	60	54	57
Kandivali (W)	81	60	72	68	58	63
Khar	79	74	76	62	42	50
Mulund	90	72	75	89	44	60
Mumbai Central	87	72	79	72	62	68
Parel	81	67	76	83	60	70
Santacruz (E)	83	68	75	78	63	72
Vikhroli	88	65	74	90	49	79
Wadala	73	50	63	75	61	69

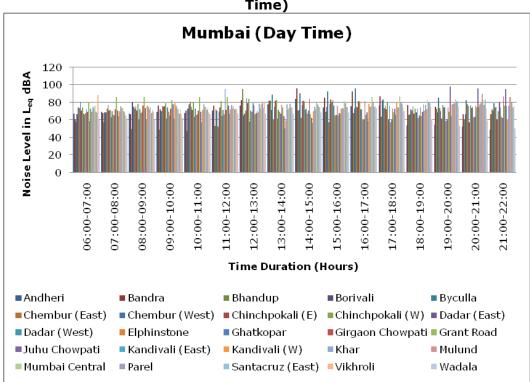
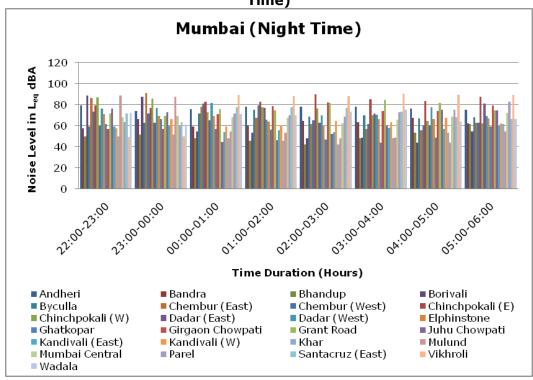


Chart 6.1: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Mumbai (Day Time)





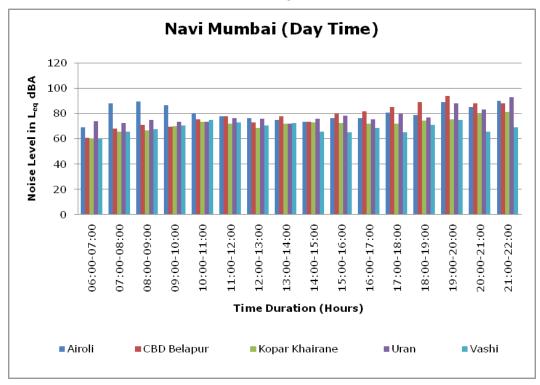
#### 2. Navi Mumbai

The noise level in all locations monitored in Navi Mumbai was found to be very high on the first day of Ganesh festival. The maximum noise level during day time was observed at CBD Belapur with 94 dB(A) and minimum noise level of 60 dB(A) was observed both at Kopar Khairane and Vashi. At night time the maximum and minimum noise level of 96 dB(A) and 45 dB(A) was observed at Vashi and Uran respectively. The highest average noise level of 81 dB(A) was observed at Airoli during day time and 72 dB(A) was observed at Airoli and Vashi during night time.

Table 6.2: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Navi Mumbai

Maximum (Lmax) Noise Levels on 25 August, 2014 in Nutri Mumbui							
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time	
Airoli	90	69	81	79	64	72	
CBD Belapur	94	61	78	74	63	70	
Kopar Khairane	81	60	72	76	58	67	
Uran	93	72	78	72	45	58	
Vashi	75	60	69	96	60	72	

Chart 6.3: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Navi Mumbai (Day Time)



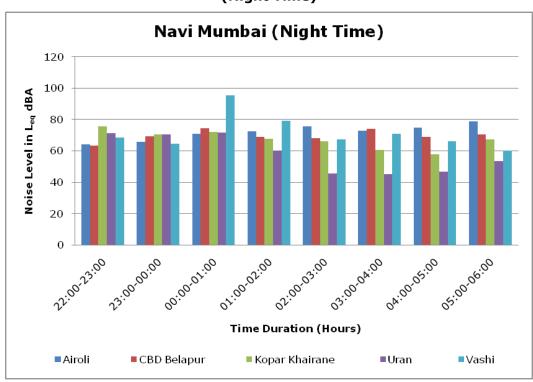


Chart 6.4: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Navi Mumbai (Night Time)

#### 3. Thane

The noise level in even in the silent zone locations monitored in Thane during first day of Ganesh festival were found exceeding the standard Noise levels with a great difference.

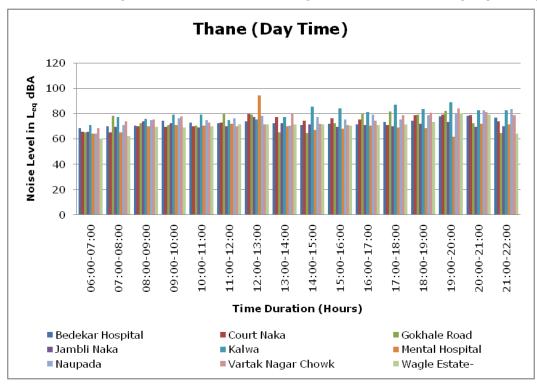
The maximum noise level during day time was observed at Mental hospital which is a silent zone with 95 dB(A) and minimum noise level of 60 dB(A) was observed at Wagle estate. At night time both the maximum and minimum noise level of 84dB(A) and  $39\ dB(A)$  was observed at Jambli Naka. The highest average noise level of 80dB(A) was observed at kalwa during day time and  $79\ dB(A)$  was observed at Gokhale road during night time.

Table 6.3: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Thane

Maximum (Lmax) Noise Levels on 25 August, 2014 in Thank						
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
<b>Gokhale Road</b>	82	64	74	83	72	79
Jambli Naka	78	66	71	84	39	54
Naupada	84	64	76	67	44	52
Vartak Nagar Chowk	84	69	76	57	45	52
Wagle Estate-	80	60	71	62	42	51

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Court Naka	80	65	74	67	54	60
Mental Hospital	95	62	70	68	54	59
Bedekar Hospital	78	69	73	68	48	55
Kalwa	89	71	80	72	42	51

Chart 6.5: Hourly Noise levels on 29th August, 2014 in Thane (Day Time)



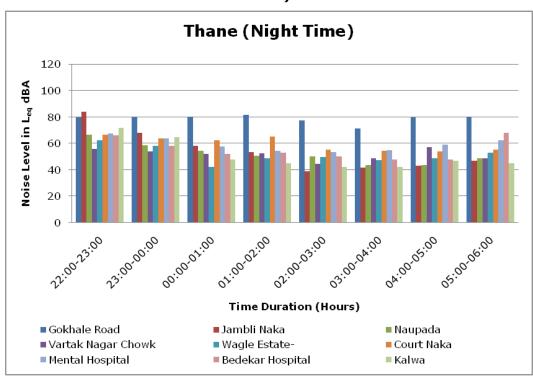


Chart 6.6: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Thane (Night Time)

#### 4. Pune

The noise level in Pune during Ganesh festival in many location have gone beyond 100 dB(A) proving the city noisy.

The maximum noise level during day time was observed at Mahatma Phule Madai  $105\ dB(A)$  and minimum noise level of  $45\ dB(A)$  was observed at Parvati. At night time the maximum noise level of  $78\ dB(A)$  was observed at Thergaon and the minimum noise level of  $48\ dB(A)$  was observed both at Mahatma Phule Madai, Hadapsar and Khadaki. The highest average noise level of  $82\ dB(A)$  was observed at Laxmi Roadduring day time and  $63\ dB(A)$  was observed at Swar Gate road during night time.

Table 6.4: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Pune

Traximam (-max) Noise Levels on Ls /kagast/ Loll in Lane						
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Shivaji Nagar	83	59	76	74	55	62
Karve Road	89	56	75	69	51	56
Swar Gate	86	53	80	76	54	63
Satara Road	87	50	72	64	49	55
Shaniwar Peth	86	70	77	73	50	60

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Yerawada	81	55	72	73	50	60
Laxmi Road	101	56	82	60	50	53
Kothrud	82	51	70	63	49	53
Mahatma Phule Madai	105	56	76	56	48	51
Sarus Baug	85	50	73	64	49	54
Hadapsar	86	52	73	72	48	55
Parvati	87	45	72	61	49	52
Koregaon Park	94	66	80	71	49	57
Khadaki	83	50	75	68	48	54
M G Road	85	47	74	72	49	58
Chapekar Chowk	90	60	81	76	50	60
Pimpri	82	64	74	73	53	61
Thergaon	87	59	79	78	50	60
Navi Sangavi	83	56	72	76	50	59
Bhosari Gavthan	82	63	72	69	49	57

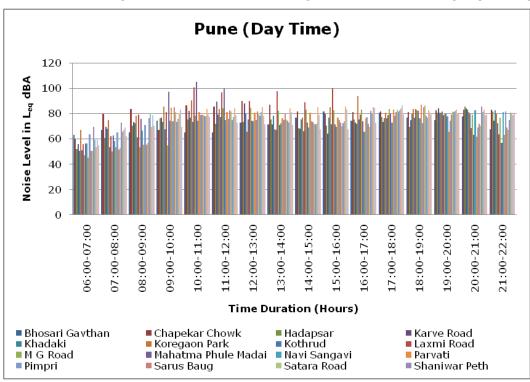
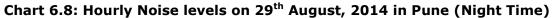
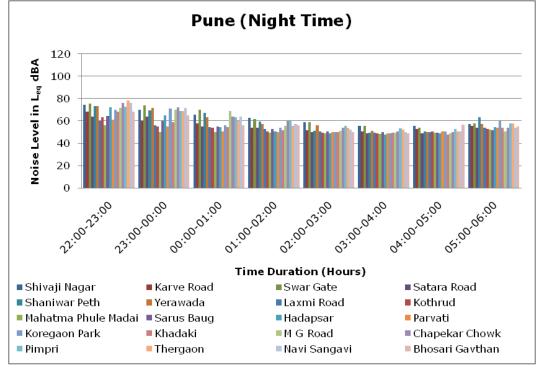


Chart 6.7: Hourly Noise levels on 29th August, 2014 in Pune (Day Time)





#### 5. Nashik

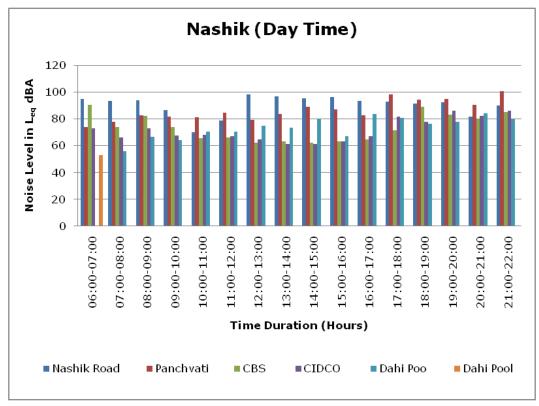
The noise level in Nashik was also very high during the first day of Ganesh festival. The maximum noise level during day time and night time was observed Panchvati and CBS during day time and night time respectively. The minimum noise level during day time is observed at Dahi Pool and during night time is

observed at Nashik road. The average noise level in the locations monitored was also high with highest average noise level during day time and night time at Nashik road and Panchvati respectively.

Table 6.5: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Nashik

Plaxilla	9 011 23	August, Zolf III Nusiiik				
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Nashik Road	98	70	90	87	57	75
Panchvati	101	74	86	91	71	84
CBS	90	62	74	93	59	77
CIDCO	86	61	72	89	62	71
Dahi Pool	84	53	72	88	65	76

Chart 6.9: Hourly Noise levels on 29th August, 2014 in Nashik (Day Time)



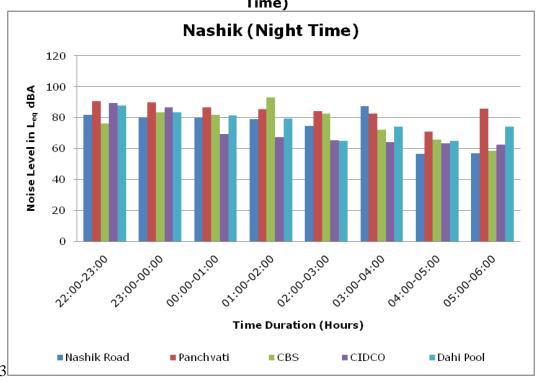


Chart 6.10: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Nashik (Night Time)

## 6. Aurangabad

The noise level in Aurangabad ranged between 70 to 80 dB(A) during the noise monitoring on  $29^{th}$  August. The maximum noise level both during day time and night time was observed at Gulmandi with 80 dB(A) and 69 dB(A) respectively. The minimum noise level both during day time and night time was observed at CIDCO residential with 58 dB(A) and 45 dB(A) respectively. The maximum average day time and night time noise level was observed at Gulmandi with 76 dB(A) and Kranti Chowk with 64 dB(A).

Table 6.6: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Aurangabad

Maxilliulli	(Lmax) Noise Levels on 25 August, 2014 in Aurangabau					
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Gulmandi	80	70	76	69	53	62
City Chowk	78	67	73	67	54	61
Kranti Chowk	79	69	75	68	57	64
CIDCO Residential	73	58	65	60	45	52
Usmanpura	74	63	69	63	48	55



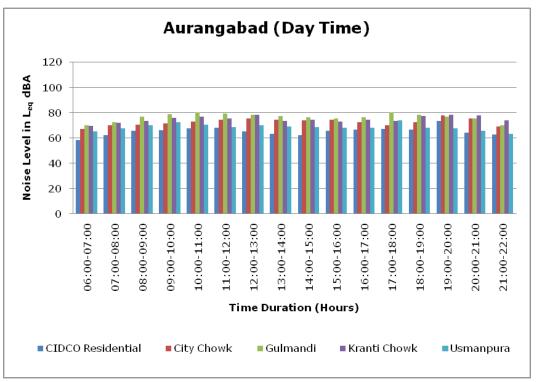
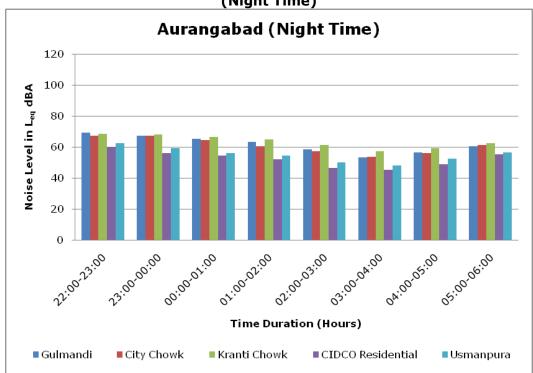


Chart 6.12: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Aurangabad (Night Time)



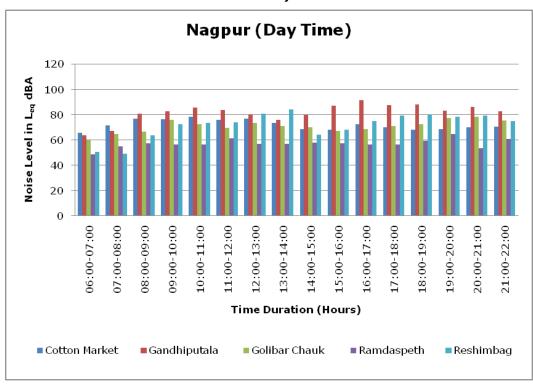
### 7. Nagpur

The noise level in Nagpur was also high during the first day of Ganesh festival noise monitoring. The maximum noise level both during day time and night time was observed at Gandhiputala with 92 dB(A) and 83 dB(A) respectively. The minimum noise level of 49 dB(A) during day time was observed both at Ramdaspeth and Reshmibag and during night time of 42 dB(A) was observed at Ramdaspeth. The maximum average noise level was found at Gandhiputala both during day time and night time with 82 dB(A) and 65 dB(A) respectively.

Table 6.7: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Nagpur

Maximum (L <sub>max</sub> ) Noise Levels on 29				August, 2014 III Nagpui			
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time	
Ramdaspeth	65	49	57	63	42	49	
<b>Cotton Market</b>	78	66	72	72	50	60	
Golibar Chauk	78	60	71	77	43	59	
Reshimbag	84	49	72	69	51	55	
Gandhiputala	92	64	82	83	54	65	

Chart 6.13: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Nagpur (Day Time)



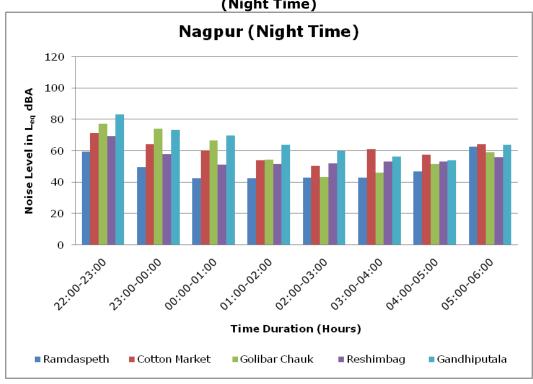


Chart 6.14: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Nagpur (Night Time)

## 8. Kalyan

The noise level in Kalyan during the first day of Ganesh festival noise monitoring was observed between the range of 60 dB(A) to 85 dB(A). The maximum noise level out of the three location monitored was observed at Shivaji Chawk with 85 dB(A) during day time and 79 dB(A) during night time. The minimum noise level of 53 dB(A) during day time was observed at Bhiwandi-Dhamankar Naka and 55 dB(A) during night time was observed at both at Bhiwandi- Dhamankar Naka and Shivaji Chawk. The maximum average noise level of 72 dB(A) during daytime was observed both at Shivaji Chawk and Ulhasnagar Station and during night time of 66 dB(A) was found at Shivaji Chawk.

Table 6.8: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Kalyan

ridxima (Lmax) Noise Levels on 25				August Lort III Kuiyuii		
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Bhiwandi- Dhamankar Naka	81	53	71	72	55	65
Shivaji Chawk	85	56	72	79	55	66
Ulhasnagar Station	79	62	72	61	41	48



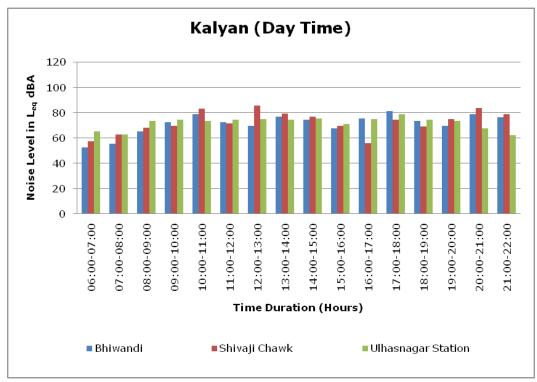
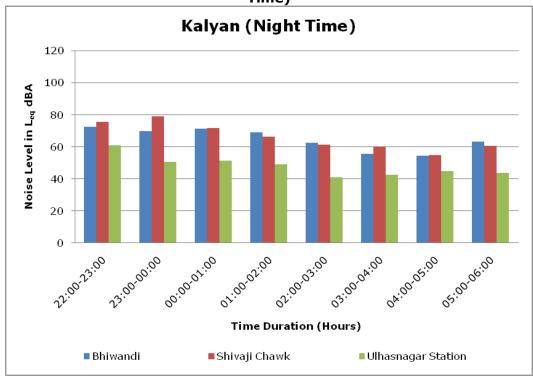


Chart 6.16: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Kalyan (Night Time)



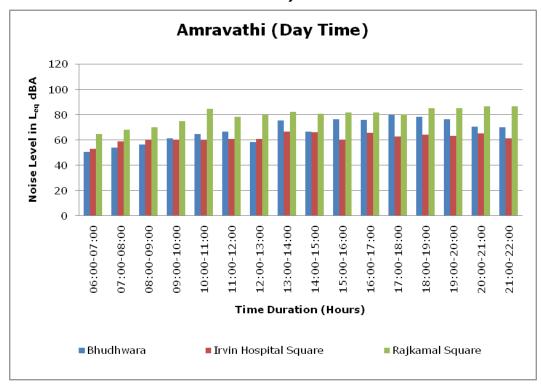
#### 9. Amravati

The maximum noise level in Amravati was observed atRajkamal Square both during day time and night time of 87 dB(A) and 74 dB(A) respectively. The minimum noise level in Amravati was observed at Bhudhwara during day time and Irvin Hospital Squareduring night time of 51 dB(A) and 43 dB(A) respectively. The maximum average noise level both during day time and night time was observed at Rajkamal Square with 79 dB(A) and 56 dB(A) respectively.

Table 6.9: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Amravati

Maximum (L <sub>max</sub> ) Noise Levels on 25 August, 2014 in Annavati						
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Bhudhwara	80	51	68	59	43	50
Rajkamal Square	87	65	79	74	45	56
Irvin Hospital Square	67	53	62	57	40	47

Chart 6.17: Hourly Noise levels on 29<sup>th</sup> August, 2014 inAmravati (Day Time)



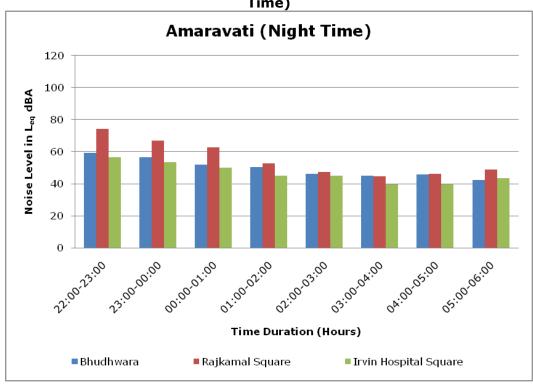


Chart 6.18: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Amravati (Night Time)

#### 10.Jalgaon

The noise level at Jalgaon region was high during the first day of Ganesh festival noise monitoring both during day time and night time. The maximum noise level during day time was observed at Shashtri Tower Chowk with 90 dB(A) and during night time was observed at Subhash Chowk with 83 dB(A). The minimum noise level both during day time and night time was observed at Shanipeth Police Station with 64 dB(A) and 41 dB(A) respectively. The maximum average noise level of 77 dB(A) and 71 dB(A) of day time and night time respectively was observed at Subhash Chowk.

Table 6.10: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Jalgaon

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time
Subhash Chowk	88	69	77	83	56	71
Shashtri Tower Chowk	90	66	75	79	46	59
Shanipeth Police Station	82	64	73	74	41	59



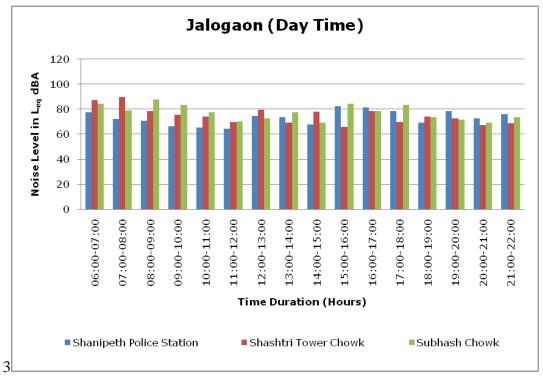
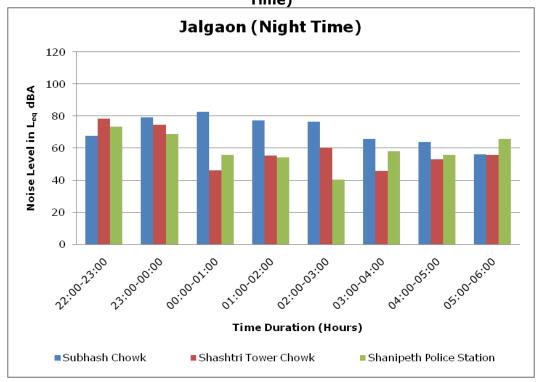


Chart 6.20: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Jalgaon (Night Time)



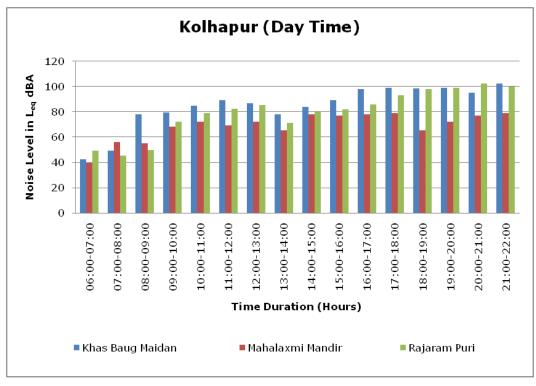
### 11.Kolhapur

Kolhapur was very noisy during the first day of Ganesh festival noise monitoring both during day time and night time. The maximum noise level during day time was observed both at Rajaram Puri and Khas Baug Maidanwith 102 dB(A) and during night time was observed at Khas Baug Maidanwith 99 dB(A). The minimum noise level both during day time and night time was observed at Mahalaxmi Mandir with 40 dB(A) and Khas Baug Maidan with41 dB(A). The maximum average noise level of 85 dB(A) and 69 dB(A) of day time and night time respectively was observed at Khas Baug Maidan.

Table 6.11: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Kolhapur

Maximum (L <sub>max</sub> ) Noise Levels on 25 August, 2014 in Komapui							
Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aeq</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aeq</sub> Night Time	
Rajaram Puri	102	45	80	96	42	68	
Mahalaxmi Mandir	79	40	69	69	42	55	
Khas Baug Maidan	102	42	85	99	41	69	

Chart 6.21: Hourly Noise levels on 29<sup>th</sup> August, 2014 inKolhapur (Day Time)



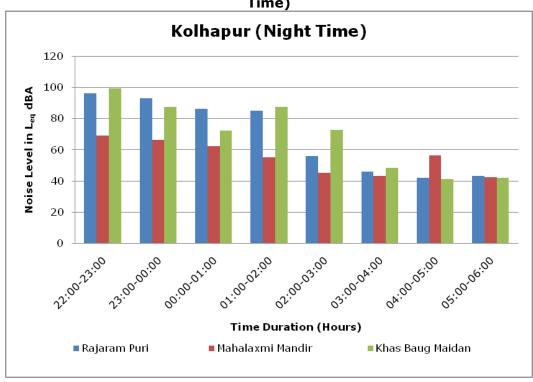


Chart 6.22: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Kolhapur (Night Time)

#### 12.Satara

The maximum noise level at Satara during both during day time and night time was observed both at Moti Chowk with 85 dB(A) and 78 dB(A) respectively. The minimum noise level during day time was observed at Rajwada with 40 dB(A) and during night time was observed at all three location monitored with40 dB(A). The maximum average noise level of 70 dB(A) during day time and 60 dB(A) during night time was observed at Moti Chowk and Powai Nakarespectively.

Table 6.12: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 29<sup>th</sup> August, 2014 in Satara

Location	L <sub>max</sub> Day Time	L <sub>min</sub> Day Time	L <sub>Aea</sub> Day Time	L <sub>max</sub> Night Time	L <sub>min</sub> Night Time	L <sub>Aea</sub> Night Time
Powai Naka	81	41	66	75	40	60
Moti Chowk	85	42	70	78	40	56
Rajwada	79	40	66	69	40	48



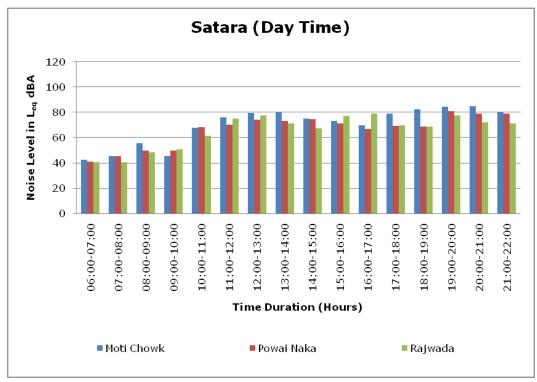
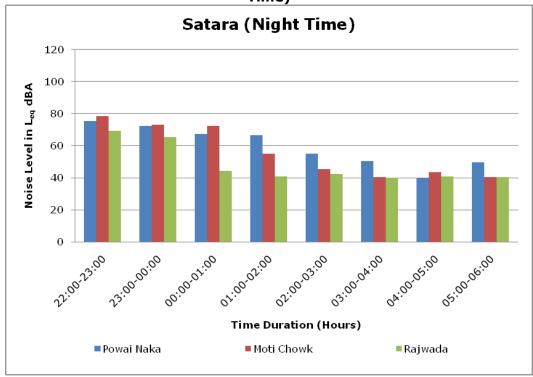


Chart 6.24: Hourly Noise levels on 29<sup>th</sup> August, 2014 in Satara (Night Time)



# II. Noise Levels on 30th August, 2014

Many people keep their Ganesh idols for one and half day and carry out its immersion (visarjan on second day). The noise level increase in this day due to the street possession which consists of huge crowd. When the Ganesh idol of a home is taken out for immersion, their neighbors, relatives, friends etc. accompany them which lead to increase in ambient noise.



#### 1. Mumbai

The maximum noise level of Mumbai region such as Chinchpokali (E), Chinchpokali (W), Dadar (E), Elphinstone, Ghatkoper, Mulund, Mumbai Central and Wadala was found to be more than 90 dB(A) and the location such as Khar and Parel had maximum noise level  $100 \, dB(A)$  and  $103 \, dB(A)$  respectively. The minimum noise level of  $57 \, dB(A)$  was observed at Dadar (W).

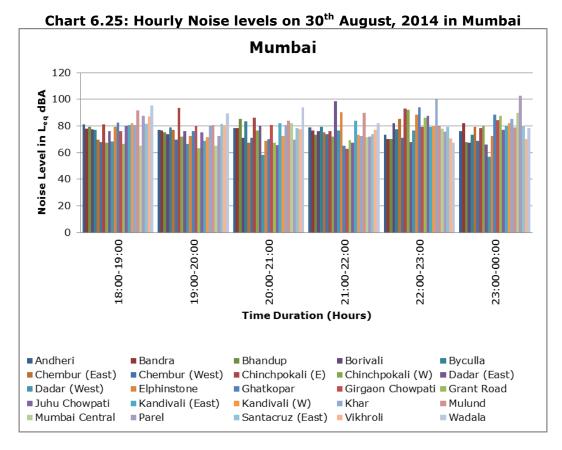
The maximum average noise level of 85 dB(A) was observed at Chinchpokali (East)which was the most nosiest location on the second day of monitoring.

Table 6.13: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Mumbai

Maxillulli (L <sub>max</sub> ) II	Olse revels Oliso	August, 2014 i	ii Mullibai
Location	$L_{max}$	$L_{min}$	$L_{Aeq}$
Andheri	81	74	77
Bandra	82	70	77
Bhandup	85	68	75

# **REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014**

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Borivali	82	68	75
Byculla	84	74	78
Chembur (E)	85	68	76
Chembur (W)	74	68	70
Chinchpokali (E)	94	76	85
Chinchpokali (W)	92	67	77
Dadar (E)	98	66	77
Dadar (W)	76	57	67
Elphinstone	90	69	79
Ghatkopar	94	65	79
Girgaon Chowpati	85	63	77
Grant Road	88	63	73
Juhu Chowpati	88	66	75
Kandivali (E)	84	69	79
Kandivali (W)	82	72	77
Khar	100	73	83
Mulund	92	79	84
Mumbai Central	90	65	75
Parel	103	70	80
Santacruz (E)	82	74	79
Vikhroli	87	70	77
Wadala	95	67	84



# 2. Navi Mumbai

The noise level in all locations monitored in Navi Mumbai on the second day of Ganesh festival was more than 80 dB(A). The maximum noise level was observed at Kopar Khairane with 101 dB(A) and minimum noise level of 81 dB(A) was observed both at CBD Belapur and Vashi. The highest average noise level of 95 dB(A) was observed at Kopar Khairane.

Table 6.14: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Navi Mumbai

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Airoli	80	70	74
CBD Belapur	87	81	84
Kopar Khairane	101	92	95
Uran	94	91	93
Vashi	94	81	86

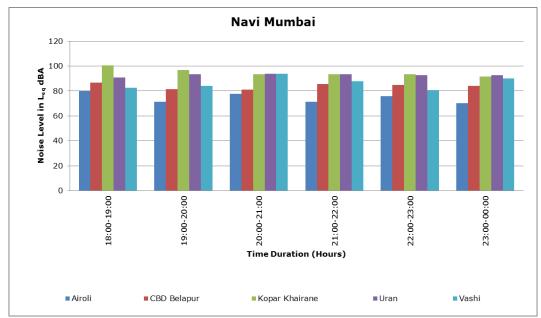


Chart 6.26: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Navi Mumbai

#### 3. Thane

The noise levels in Thane region during second day of Ganesh festival werelesser as compared to other region and Thane itself on the first day of monitoring.

The maximum noise level was observed at Gokhale Roadwith 84 dB(A) and minimum noise level of 55 dB(A) was observed at Mental Hospital. The highest average noise level of 77 dB(A) was also observed at Gokhale road.

Table 6.15: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Thane

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Gokhale Road	84	72	77
Jambli Naka	77	71	73
Naupada	82	71	75
Vartak Nagar Chowk	77	71	74
Wagle Estate	76	67	72
Court Naka	80	66	73
Mental Hospital	65	55	62
Bedekar Hospital	69	65	67
Kalwa	82	68	76

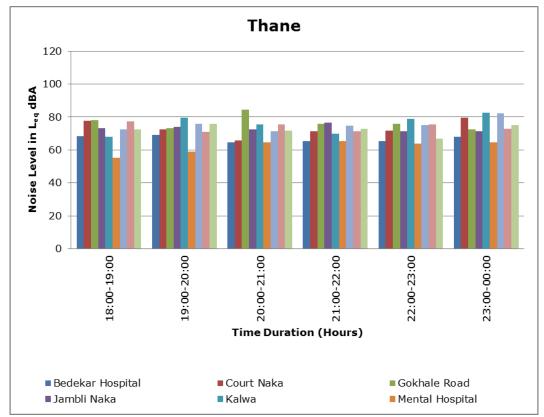


Chart 6.27: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Thane

#### 4. Pune

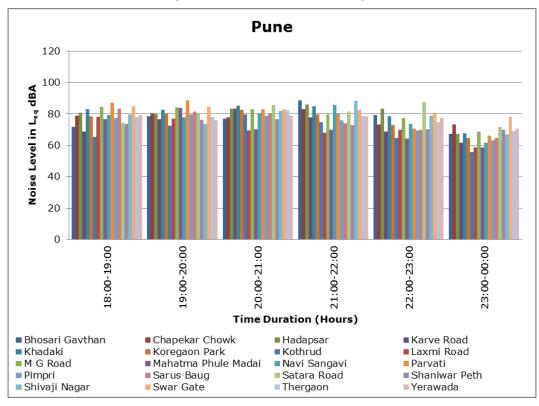
The noise level in Pune on the second day of Ganesh festival in many location was observed to be in the range of 80dB(A) to  $89\ dB(A)$ . The maximum noise level of  $89\ dB(A)$  was observed both at Parvati and Bhosari Gavthan and minimum noise level of  $56\ dB(A)$  was observed at Kothrud. The highest average noise level of  $82\ dB(A)$  was observed at Swar Gate road.

Table 6.16: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Pune

PlaxIIIIuIII (∟max)	MOISE LEVEIS OILS	O August, 2017	III Fulle
Location	L <sub>max</sub>	$L_{min}$	$L_{Aeq}$
Shivaji Nagar	88	67	78
Karve Road	83	62	73
Swar Gate	85	78	82
Satara Road	87	72	80
Shaniwar Peth	77	70	73
Yerawada	79	71	77
Laxmi Road	78	59	70
Kothrud	79	56	69

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Mahatma Phule Madai	84	59	71
Sarus Baug	83	65	76
Hadapsar	86	67	80
Parvati	89	66	79
Koregaon Park	82	65	76
Khadaki	85	68	80
M G Road	84	69	79
Chapekar Chowk	83	73	78
Pimpri	79	63	74
Thergaon	82	69	77
Navi Sangavi	85	62	76
Bhosari Gavthan	89	67	77

Chart 6.28: Hourly Noise levels on 30th August, 2014 in Pune



#### 5. Nashik

The noise level in Nashik on  $30^{th}$  August ranged between  $86\ dB(A)$  to  $101\ dB(A)$ . The maximum noise level of  $101\ dB(A)$  was observed Panchvati and the minimum noise level is observed at Dahi Pool and during night time is observed at Nashik road. The average noise level in the locations monitored was observed at Panchvati with  $90\ dB(A)$ .

Table 6.17: Equivalent Continuous  $(L_{Aeq})$  dB(A), Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on 30<sup>th</sup> August, 2014 in Nashik

- max/ i	0.56 =616.5 0.150	/ /tagast/ _or !	
Location	$L_{max}$	$L_{min}$	$L_{Aeq}$
Nashik Road	87	76	82
Panchvati	101	83	90
CBS	91	83	87
CIDCO	86	74	78
Dahi Pool	90	76	82

Nashik 120 100 Noise Level in Leg dBA 80 60 40 20 Λ 18:00-19:00 19:00-20:00 00-21:00 21:00-22:00 00-23:00 23:00-00:00 Time Duration (Hours) ■ Nashik Road CBS ■ CIDCO ■ Dahi Pool Panchvati

Chart 6.29: Hourly Noise levels on 30th August, 2014 in Nashik

# 6. Aurangabad

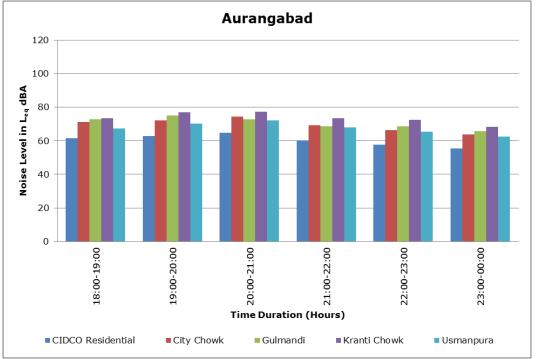
The noise level in majority of the location in Aurangabad on the second day of noise monitoring during Ganesh festival was above 70 dB(A). The maximum noise level was observed at Kranti Chowk with 77 dB(A)and the minimum noise level of

55 dB(A) was observed at CIDCO residential. The maximum average noise level was observed at Kranti Chowk with 74 dB(A).

Table 6.18: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Aurangabad

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Gulmandi	75	66	71
City Chowk	75	64	69
Kranti Chowk	77	68	74
CIDCO Residential	65	55	60
Usmanpura	72	62	68

Chart 6.30: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Aurangabad



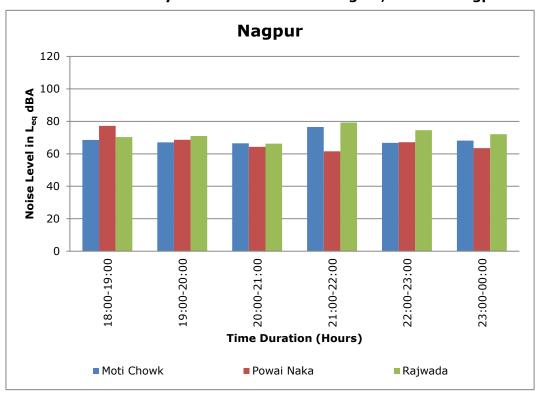
# 7. Nagpur

The maximum noise level at Nagpur on  $30^{th}$  August was observed at Reshmibag with 84 dB(A) and the minimum noise level of 54 dB(A) was found at Ramdaspeth. The maximum average noise level was found at Reshmibag with 76 dB(A).

Table 6.19: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Nagpur

		7.0.90.00, _0	
Location	$L_{max}$	L <sub>min</sub>	L <sub>Aeq</sub>
Ramdaspeth	62	54	58
Cotton Market	72	63	69
Golibar Chauk	74	59	68
Reshimbag	84	65	76
Gandhiputala	76	66	72

Chart 6.31: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Nagpur



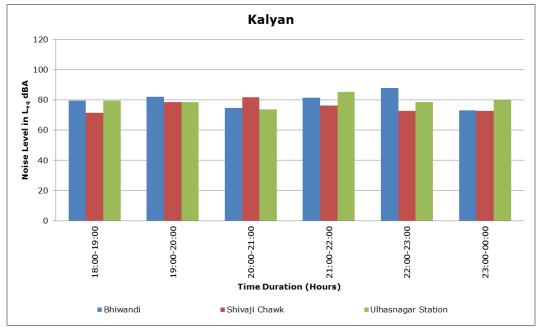
# 8. Kalyan

The noise level in all locations of Kalyan region during the second day of Ganesh festival noise monitoring was observed above 80 dB(A). The maximum noise level was observed at Bhiwandi- Dhamankar Naka with 88 dB(A) and the minimum noise level of 71 dB(A) was observed at Shivaji Chawk. The maximum average noise level of 80 dB(A) was observed both at Bhiwandi- Dhamankar.

Table 6.20: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Kalyan

Tiestille (=max)		, , g,	
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bhiwandi- Dhamankar Naka	88	73	80
Shivaji Chawk	82	71	76
Ulhasnagar Station	85	74	79

Chart 6.32: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Kalyan



#### 9. Amravati

The maximum noise level in Amravati was observed at Rajkamal Squareon the second day of noise monitoring and the minimum noise level was observed at Irvin Hospital Square of 53 dB(A). The maximum average noise level was observed at Rajkamal Square with 76 dB(A).

Table 6.21: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup>August, 2014 in Amravati

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bhudhwara	67	61	64
Rajkamal Square	85	70	76
Irvin Hospital Square	64	53	60

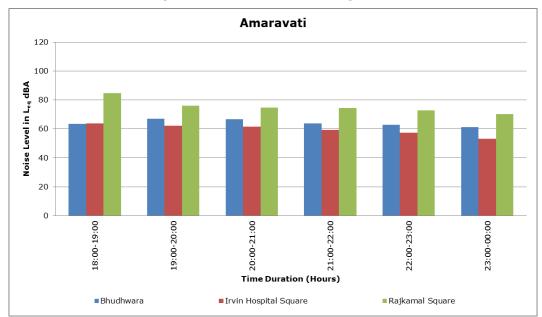


Chart 6.33: Hourly Noise levels on 30th August, 2014 inAmravati

# 10.Jalgaon

The maximum noise level during day time was observed at both Shashtri Tower Chowkand Subhash Chowkwith 83 dB(A) and the minimum noise level was observed at Shanipeth Police Station with 64 dB(A). The maximum average noise level of 77 dB(A) was observed at Shashtri Tower Chowk.

Table 6.22: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup>August, 2014 in Jalgaon

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Subhash Chowk	83	68	75
Shashtri Tower Chowk	83	71	77
Shanipeth Police Station	78	64	71

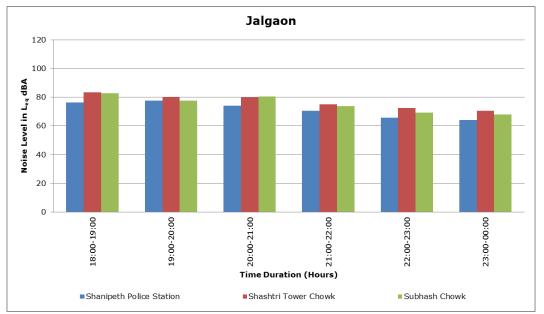


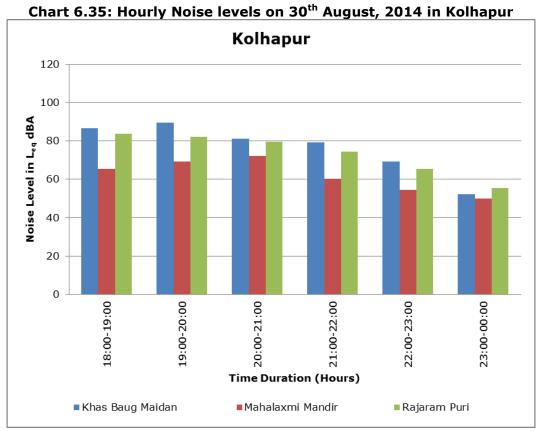
Chart 6.34: Hourly Noise levels on 30<sup>th</sup> August, 2014 in Jalgaon

# 11.Kolhapur

The noise level in Kolhapur on the second day of noise monitoring was less as compared to the first day of Ganesh festival. The maximum noise level was observed at Khas Baug Maidanwith 90 dB(A) and the minimum noise level was observed at Mahalaxmi Mandir with 50 dB(A). The maximum average noise level of 76 dB(A) was observed at Khas Baug Maidan.

Table 6.23: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup> August, 2014 in Kolhapur

Transferred (=Illax)		, ,	
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Rajaram Puri	84	56	73
Mahalaxmi Mandir	72	50	62
Khas Baug Maidan	90	52	76



12.Satara

The maximum noise level at Satara was observed at Rajwada with 79dB(A) and the minimum noise level was observed at Powai Nakawith 40 dB(A) and during night time was observed at all three location monitored with 62 dB(A). The maximum average noise level of 72 dB(A) was observed at Rajwada.

Table 6.24: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 30<sup>th</sup>August, 2014 in Satara

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Powai Naka	77	62	67
Moti Chowk	77	67	69
Rajwada	79	66	72

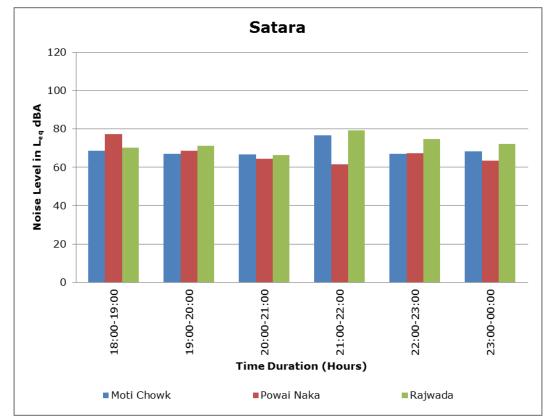


Chart 6.36: Hourly Noise levels on 30th August, 2014 in Satara

# III. Noise Levels on 3<sup>rd</sup> September, 2014

3<sup>rd</sup> September was sixth day of Ganesh festival and there was very less or no Visasrjan happening on the same day. The increase in noise level is due to the crowds visiting Mandals, the load speakers placed near mandals etc.

### 1. Mumbai

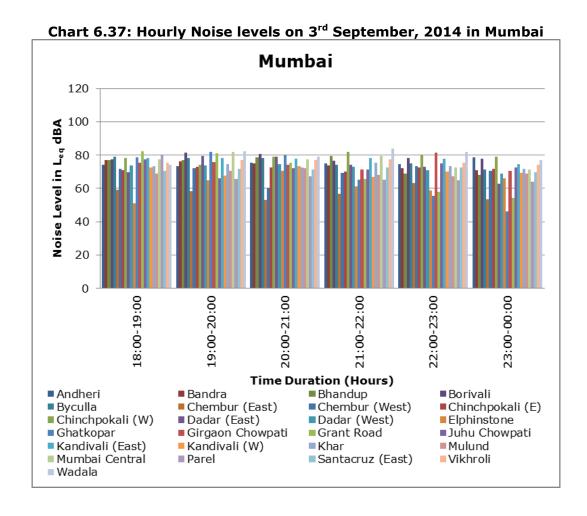
The maximum noise level of Mumbai region on  $3^{\rm rd}$  September was observed at Wadala with 84 dB(A) and the minimum noise level of 46 dB(A) was observed at Ghatakoper. The maximum average noise level of 80 dB(A) was also observed at Wadala.

Table 6.25: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Mumbai

Maxilliulli (L <sub>max</sub> ) No	ise Levels Ulis	September, 2014	ili riullibai
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Andheri	79	73	75
Bandra	77	71	74
Bhandup	79	68	75
Borivali	82	76	79
Byculla	79	71	76

# **REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014**

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Chembur (E)	63	53	57
Chembur (W)	73	60	70
Chinchpokali (E)	73	70	72
Chinchpokali (W)	82	74	79
Dadar (E)	79	63	73
Dadar (W)	75	69	72
Elphinstone	71	51	62
Ghatkopar	82	46	68
Girgaon Chowpati	82	70	75
Grant Road	82	54	69
Juhu Chowpati	77	66	72
Kandivali (E)	78	75	77
Kandivali (W)	74	67	70
Khar	75	72	73
Mulund	72	67	69
Mumbai Central	82	71	77
Parel	80	64	68
Santacruz (E)	73	70	71
Vikhroli	78	74	76
Wadala	84	74	80



#### 2. Navi Mumbai

The maximum noise level was observed at Uran with 84 dB(A) and minimum noise level of 62 dB(A) was observed both at CBD Belapur and Kopar Khairane. The highest average noise level of 80 dB(A) was observed at Vashi.

Table 6.26: Equivalent Continuous ( $L_{Aeq}$ )dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Navi Mumbai

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Airoli	73	62	69
CBD Belapur	75	66	72
Kopar Khairane	72	62	68
Uran	81	65	76
Vashi	84	74	80

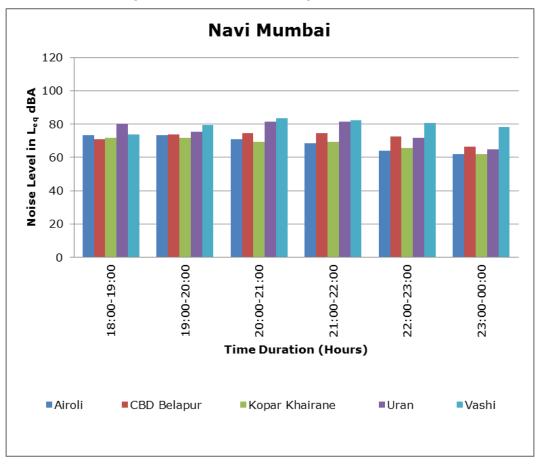


Chart 6.38: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Navi Mumbai

# 3. Thane

The maximum noise level was observed at Vartak Nagar Chowk with 82 dB(A) and minimum noise level of 54 dB(A) was observed at Naupada. The highest average noise level of 75 dB(A) was observed at Jambli Naka on  $3^{rd}$  September, 2014.

Table 6.27: Equivalent Continuous  $(L_{Aeq})dB(A)$ , Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on  $3^{rd}$  September, 2014 in Thane

Plaximum (Emax) iv	.56 2676.5 6.15	September, 201	· ···· · ····a····c
Location	$L_{max}$	L <sub>min</sub>	$L_{Aeq}$
Gokhale Road	78	68	74
Jambli Naka	80	69	75
Naupada	70	54	61
Vartak Nagar Chowk	82	65	72
Wagle Estate	79	68	71
Court Naka	73	61	69
Mental Hospital	74	60	68

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bedekar Hospital	80	67	74
Kalwa	76	71	74

Thane

120

100

20:00-20:00

21:00-20:00

22:00-23:00

23:00-00:00

23:00-00:00

**Time Duration (Hours)** 

■ Gokhale Road

■ Wagle Estate-

Mental Hospital

Chart 6.39: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Thane

# 4. Pune

■ Bedekar Hospital■ Jambli Naka

Naupada

The noise level in Pune on  $3^{rd}$  September was also found to be high with maximum noise level of 100 dB(A) found in Laxmi Road, Mahatma Phule Madai and Koregaon Park. The maximum noise level of 61dB(A) was observed both at Kothrud and Sarus Baug. The highest average noise level of 88 dB(A) was observed at Mahatma Phule Madai.

■Vartak Nagar Chowk

■ Court Naka

■ Kalwa

Table 6.28: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Pune

Maxilliulli (∟ <sub>max</sub> ) i	ADISE LEVEIS DIIS	September, 201	4 III Pulle
Location	$L_{max}$	L <sub>min</sub>	$L_{Aeq}$
Shivaji Nagar	88	68	81
Karve Road	90	75	81
Swar Gate	85	80	83

# **REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014**

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Satara Road	82	68	78
Shaniwar Peth	82	74	79
Yerawada	79	65	75
Laxmi Road	100	68	86
Kothrud	88	61	74
Mahatma Phule Madai	100	66	88
Sarus Baug	81	61	73
Hadapsar	86	71	82
Parvati	82	62	74
Koregaon Park	100	68	80
Khadaki	88	69	81
M G Road	86	77	82
Chapekar Chowk	87	76	82
Pimpri	78	67	74
Thergaon	79	73	77
Navi Sangavi	87	67	80
Bhosari Gavthan	91	64	76

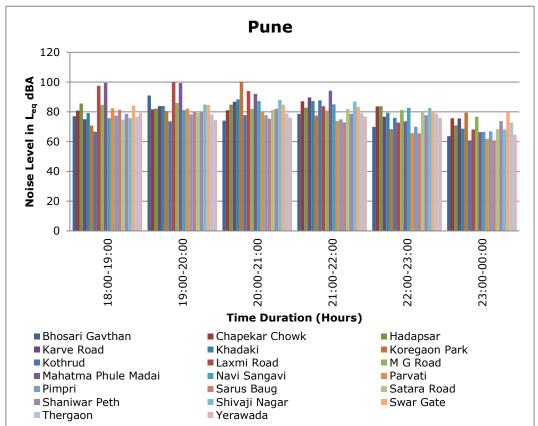


Chart 6.40: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Pune

#### 5. Nashik

The maximum noise level of 99 dB(A) was observed at Panchvati and the minimum noise level of 63 dB(A)was observed at CIDCO. The highest average noise level in the locations monitored was observed at Panchvatiwith 92 dB(A).

Table 6.29: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Nashik

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Nashik Road	92	74	83
Panchvati	99	86	92
CBS	91	71	86
CIDCO	86	63	76
Dahi Pool	88	68	80

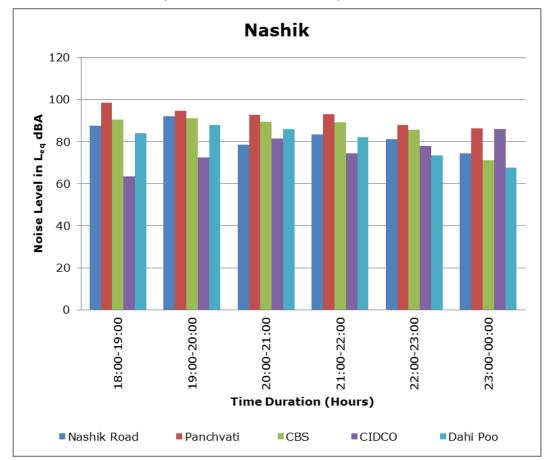


Chart 6.41: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Nashik

#### 6. Aurangabad

The maximum noise level was observed both at Gulmandi and City Chowk with 79 dB(A)and the minimum noise level of 54 dB(A) was observed at CIDCO residential. The maximum average noise level was observed at Kranti Chowk with 74 dB(A).

Table 6.30: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on  $3^{rd}$  September, 2014 in Aurangabad

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Gulmandi	79	63	72
City Chowk	74	65	69
Kranti Chowk	79	68	74
CIDCO Residential	70	54	62
Usmanpura	72	63	67

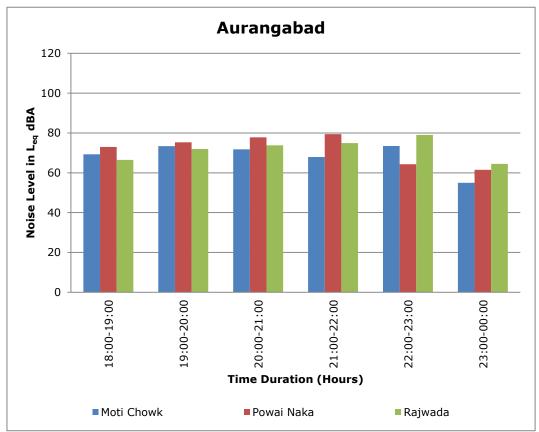


Chart 6.42: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Aurangabad

# 7. Nagpur

The maximum noise level at Nagpur was observed at Reshmibag with 79 dB(A) and the minimum noise level of 53 dB(A) was found at Ramdaspeth. The maximum average noise level was found at Reshmibag with 76 dB(A).

Table 6.31: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Nagpur

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Ramdaspeth	64	53	58
Cotton Market	76	66	72
Golibar Chauk	72	64	68
Reshimbag	79	66	76
Gandhiputala	75	68	72

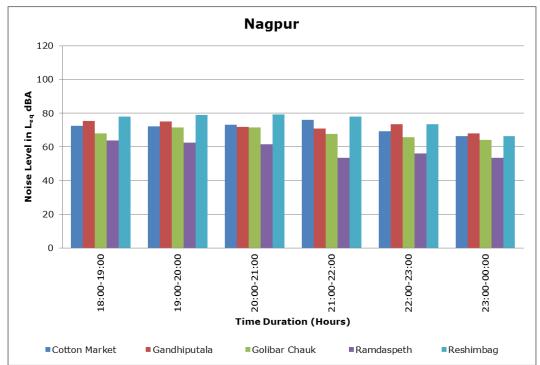


Chart 6.43: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Nagpur

#### 8. Kalyan

The maximum noise level was observed at Shivaji Chawk with 86 dB(A) and theminimum noise level of 48 dB(A) was also observed at Shivaji Chawk. The maximum average noise level of 71 dB(A) was observed both at Ulhasnagar Station.

Table 6.32: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on3<sup>rd</sup> September, 2014 in Kalyan

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Bhiwandi- Dhamankar Naka	75	66	69
Shivaji Chawk	86	48	68
Ulhasnagar Station	76	67	71

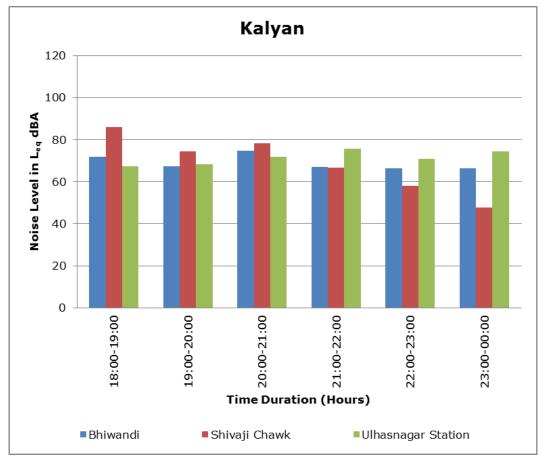


Chart 6.44: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Kalyan

#### 9. Amravati

The maximum noise level in Amravati was observed at Bhudwara with 81 dB(A) and the minimum noise level was observed at Irvin Hospital Square of 67 dB(A). The maximum average noise level was observed at bothRajkamal Squareand Bhudwara with 74 dB(A).

Table 6.33: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3<sup>rd</sup> September, 2014 in Amravati

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Bhudhwara	81	68	74
Rajkamal Square	80	68	74
Irvin Hospital Square	67	61	65

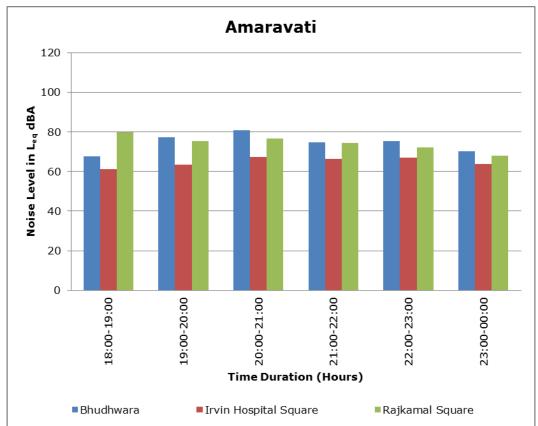


Chart 6.45: Hourly Noise levels on 3<sup>rd</sup> September, 2014 inAmravati

# 10.Jalgaon

The maximum noise level during day time was observed at Shashtri Tower Chowk with 89 dB(A) and the minimum noise level was observed at Shanipeth Police Station with 61 dB(A). The maximum average noise level of 76 dB(A) was observed at Shashtri Tower Chowk.

Table 6.34: Equivalent Continuous  $(L_{Aeq})$  dB(A), Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on  $3^{rd}$  September, 2014 in Jalgaon

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Subhash Chowk	80	71	74
Shashtri Tower Chowk	89	70	76
Shanipeth Police Station	73	61	65

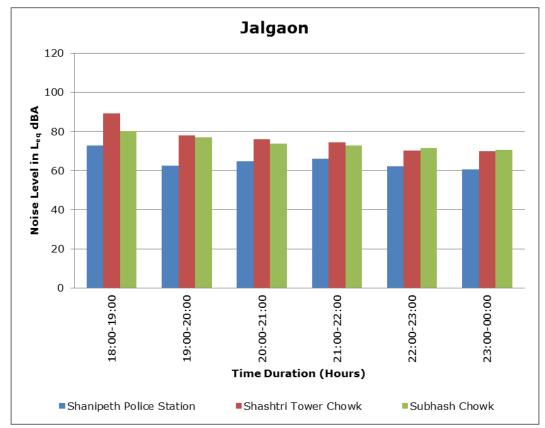


Chart 6.46: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Jalgaon

# 11.Kolhapur

The maximum noise level was observed at Khas Baug Maidanwith 91 dB(A) and the minimum noise level was observed at Mahalaxmi Mandir with 48 dB(A). The maximum average noise level of 84 dB(A) was observed at Khas Baug Maidan.

Table 6.35: Equivalent Continuous  $(L_{Aeq})dB(A)$ , Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on  $3^{rd}$  September, 2014 in Kolhapur

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Rajaram Puri	88	72	82
Mahalaxmi Mandir	70	48	61
Khas Baug Maidan	91	64	84

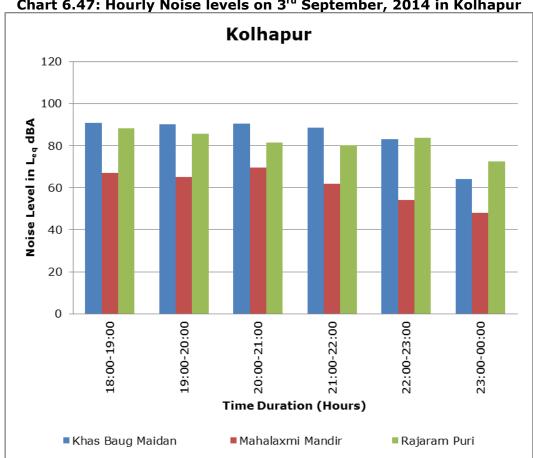


Chart 6.47: Hourly Noise levels on 3<sup>rd</sup> September, 2014 in Kolhapur

#### 12.Satara

The maximum noise level at Satara was observed both at Rajwadaand Powai Naka with 79 dB(A) and the minimum noise level was observed at Moti Chowkwith 55 dB(A). The maximum average noise level of 72 dB(A) was observed both at Rajwada and Powai Naka.

Table 6.36: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 3<sup>rd</sup> September, 2014 in Satara

Plaximum (Emax) No	ISC ECVCIS OII S	September, 201	T III Satara
Location	L <sub>max</sub>	L <sub>min</sub>	$L_Aeq$
Powai Naka	79	62	72
Moti Chowk	74	55	68
Rajwada	79	65	72

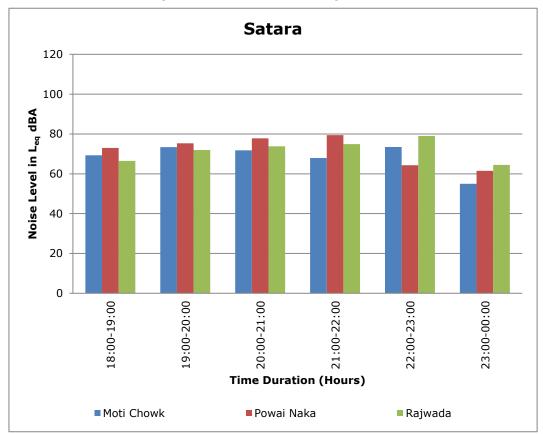


Chart 6.48: Hourly Noise levels on 3rd September, 2014 in Satara

# IV. Noise Levels on 6<sup>th</sup> September, 2014

On 6<sup>th</sup> September also the visarjan was not taken place and the increase in noise level is due to the other festive reasons

#### 1. Mumbai

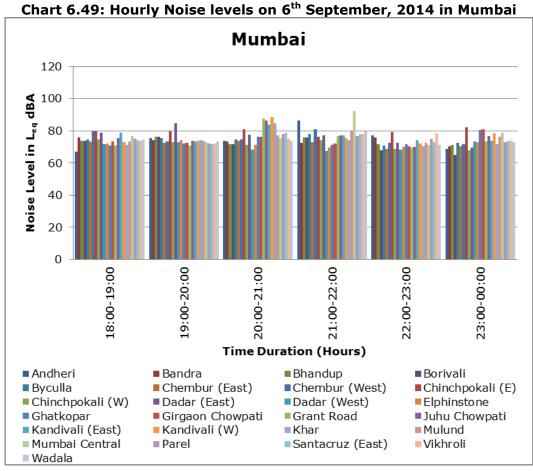
The maximum noise level of Mumbai region was observed at Mumbai Central with 92 dB(A) and the minimum noise level of 65 dB(A) was observed at Borivali. The maximum average noise level of 80 dB(A) was also observed at Wadala.

Table 6.37: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Mumbai

Traximam (=max) 110	=	pepteringer, zer i	
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Andheri	86	67	75
Bandra	76	71	74
Bhandup	76	71	73
Borivali	76	65	72
Byculla	78	71	74

# **REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014**

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Chembur (E)	74	69	72
Chembur (W)	81	71	75
Chinchpokali (E)	82	76	80
Chinchpokali (W)	75	68	72
Dadar (E)	85	70	77
Dadar (W)	73	67	70
Elphinstone	74	69	72
Ghatkopar	81	71	74
Girgaon Chowpati	81	70	74
Grant Road	88	70	75
Juhu Chowpati	86	70	76
Kandivali (E)	84	73	77
Kandivali (W)	89	72	77
Khar	85	70	74
Mulund	80	73	75
Mumbai Central	92	71	78
Parel	78	72	75
Santacruz (E)	79	72	75
Vikhroli	78	72	75
Wadala	80	71	74



#### 2. Navi Mumbai

The maximum noise level was observed at Kopar Khairane with 81 dB(A) and minimum noise level of 68 dB(A) was observed at Vashi. The maximum average noise level of 80 dB(A) was observed at Airoli.

Table 6.38: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Navi Mumbai

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Airoli	80	73	76
CBD Belapur	79	72	75
Kopar Khairane	81	71	74
Uran	78	71	75
Vashi	79	68	71

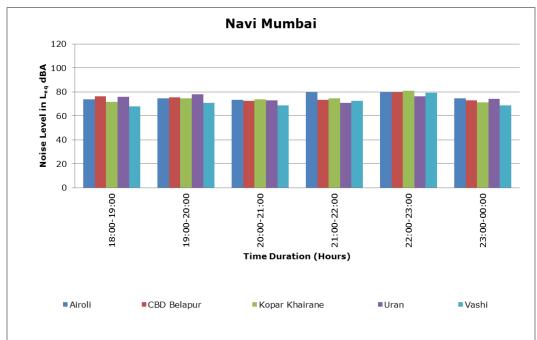


Chart 6.50: Hourly Noise levels on 6<sup>th</sup> September, 2014 in Navi Mumbai

#### 3. Thane

The maximum noise level was observed at Jambli Naka with 84 dB(A) and minimum noise level of 59 dB(A) was observed at Bedekar Hospital. The highest average noise level of 80 dB(A) was observed at Jambli Naka.

Table 6.39: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6<sup>th</sup>September, 2014 in Thane

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Gokhale Road	77	69	75
Jambli Naka	84	77	80
Naupada	79	70	75
Vartak Nagar Chowk	78	73	75
Wagle Estate	80	65	72
Court Naka	76	62	69
Mental Hospital	76	64	68
Bedekar Hospital	74	59	64
Kalwa	79	65	74

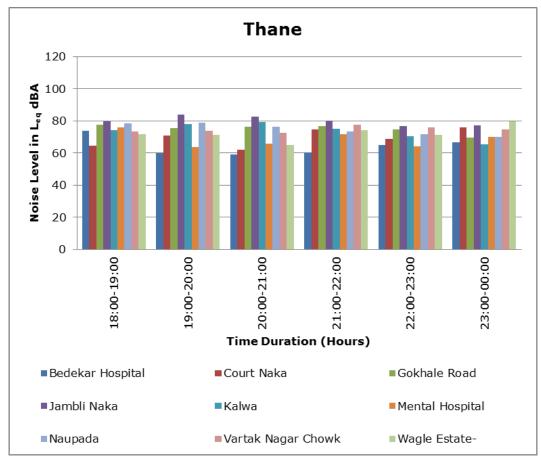


Chart 6.51: Hourly Noise levels on 6th September, 2014 in Thane

# 4. Pune

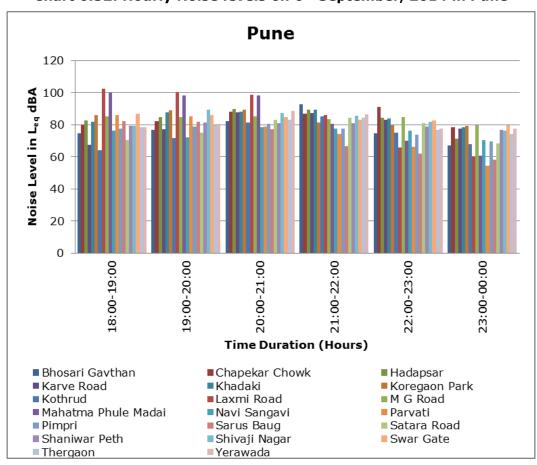
The maximum noise level of  $103 \ dB(A)$  found in Laxmi Road and the minimum noise level of  $54 \ dB(A)$  was observed at Parvati. The highest average noise level of  $86 \ dB(A)$  was observed at Laxmi Road.

Table 6.40: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Pune

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Shivaji Nagar	89	76	83
Karve Road	87	67	80
Swar Gate	87	80	84
Satara Road	84	68	77
Shaniwar Peth	81	77	80
Yerawada	88	77	81
Laxmi Road	103	60	86
Kothrud	85	64	74

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Mahatma Phule Madai	100	61	84
Sarus Baug	82	58	71
Hadapsar	90	71	84
Parvati	86	54	74
Koregaon Park	89	79	84
Khadaki	89	79	85
M G Road	85	80	84
Chapekar Chowk	91	78	84
Pimpri	80	69	76
Thergaon	84	74	79
Navi Sangavi	78	70	75
Bhosari Gavthan	93	67	78

Chart 6.52: Hourly Noise levels on 6th September, 2014 in Pune



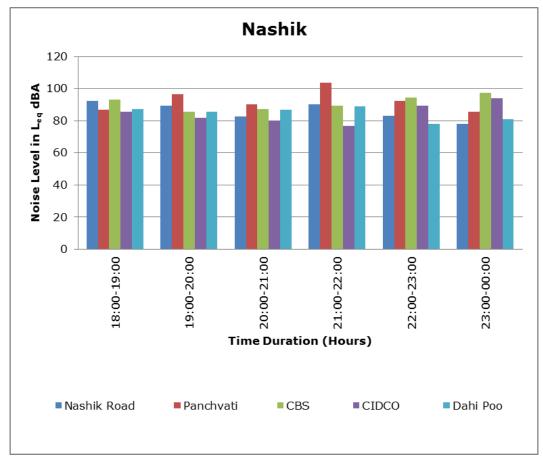
#### 5. Nashik

The maximum noise level of 104 dB(A) was observed at Panchvati and the minimum noise level of 77 dB(A) was observed at CIDCO. The maximum average noise level in the locations monitored was observed at Panchvati with 92 dB(A).

Table 6.41: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Nashik

Plaximum (Lmax) No	ise Levels offo	September, 201-	riii itasiiik
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Nashik Road	92	78	86
Panchvati	104	86	92
CBS	97	85	91
CIDCO	94	77	85
Dahi Pool	89	78	84

Chart 6.53: Hourly Noise levels on 6th September, 2014 in Nashik



#### 6. Aurangabad

The maximum noise level was observed at Gulmandi with 82 dB(A) and the minimum noise level of 62 dB(A) was observed at CIDCO residential. The maximum average noise level was observed at Kranti Chowk with 77 dB(A).

Table 6.42: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum (L<sub>max</sub>) Noise Levels on6<sup>th</sup> September, 2014 in Aurangabad

Traximam (Lmax) Noise Levels one September, Let I in Marange			7.4.4.94544
Location	$L_{max}$	L <sub>min</sub>	$L_{Aeq}$
Gulmandi	82	68	75
City Chowk	77	67	73
Kranti Chowk	81	71	77
CIDCO Residential	73	62	68
Usmanpura	79	65	72

Aurangabad 120 dBA 100 Noise Level in  $\mathsf{L}_{\mathsf{eq}}$ 80 60 40 20 0 18:00-19:00 19:00-20:00 23:00-00:00 20:00-21:00 21:00-22:00 22:00-23:00 **Time Duration (Hours)** ■ Bedekar Hospital ■ Court Naka ■ Gokhale Road ■Jambli Naka Kalwa ■ Mental Hospital Naupada ■ Vartak Nagar Chowk ■ Wagle Estate-

Chart 6.54: Hourly Noise levels on 6th September, 2014 in Aurangabad

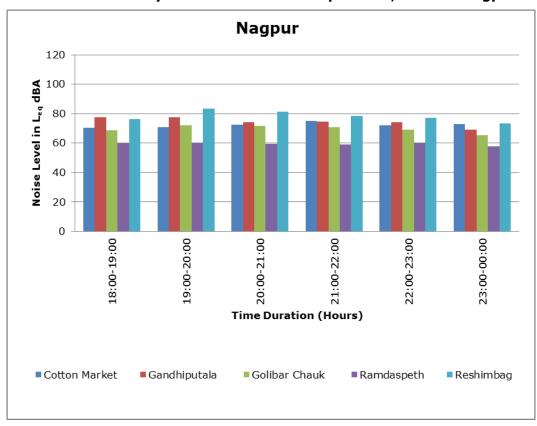
#### 7. Nagpur

The maximum noise level at Nagpur was observed at Reshmibag with 83 dB(A) and the minimum noise level of 58 dB(A) was found at Ramdaspeth. The maximum average noise level was found at Reshmibag with 78 dB(A).

Table 6.43: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Nagpur

riaxiiiaiii (=max) iio	100 201010 0110	ocptomber, zer	
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Ramdaspeth	60	58	59
Cotton Market	75	70	72
Golibar Chauk	72	65	70
Reshimbag	83	74	78
Gandhiputala	78	69	74

Chart 6.55: Hourly Noise levels on 6th September, 2014 in Nagpur



#### 8. Kalyan

The maximum noise level was observed at Bhiwandi- Dhamankar Naka with 86 dB(A) and the minimum noise level of 61 dB(A) was observed at Shivaji Chawk. The maximum average noise level of 80 dB(A) was observed both at Bhiwandi- Dhamankar Naka.

Table 6.44: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on6<sup>th</sup> September, 2014 in Kalyan

Location	$L_{max}$	L <sub>min</sub>	$L_{Aeq}$

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bhiwandi- Dhamankar Naka	86	74	80
Shivaji Chawk	70	61	66
Ulhasnagar Station	76	72	74

Chart 6.56 Hourly Noise levels on 6th September, 2014 in Kalyan

#### 9. Amravati

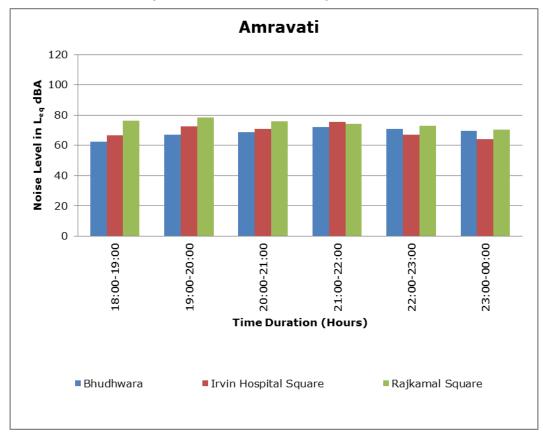
The maximum noise level in Amravati was observed at Rajkamal Square with 79 dB(A) and the minimum noise level was observed at Bhudwara of 62 dB(A). The maximum average noise level was observed at Rajkamal Square with 75 dB(A).

Table 6.45: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6<sup>th</sup>September, 2014 in Amravati

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bhudhwara	72	62	68
Rajkamal Square	79	70	75

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Irvin Hospital Square	75	64	69

Chart 6.57: Hourly Noise levels on 6th September, 2014 in Amravati



#### 10.Jalgaon

The maximum noise level was observed at Shashtri Tower Chowk with 93 dB(A) and the minimum noise level was observed at Shanipeth Police Station with 64 dB(A). The maximum average noise level of 84 dB(A) was observed at Shashtri Tower Chowk.

Table 6.46: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6<sup>th</sup> September, 2014 in Jalgaon

Plaximum (Emax) No.	SC ECTCIS OII O	September/ 2014	iii saigaoii
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Subhash Chowk	86	72	80
Shashtri Tower Chowk	93	74	84
Shanipeth Police Station	75	64	71

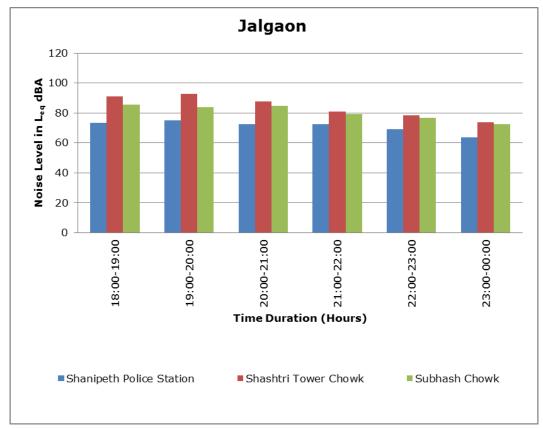


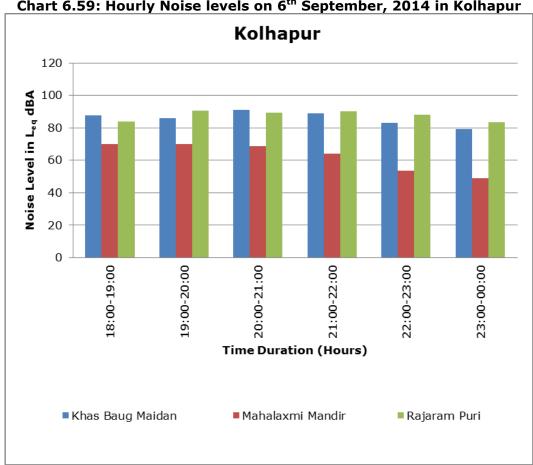
Chart 6.58: Hourly Noise levels on 6<sup>th</sup>September, 2014 in Jalgaon

#### 11.Kolhapur

The maximum noise level was observed both at Khas Baug Maidanand Rajaram Puri with 91 dB(A) and the minimum noise level was observed at Mahalaxmi Mandir with 49 dB(A). The maximum average noise level of 88 dB(A) was observed at Rajaram Puri.

Table 6.47: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6<sup>th</sup> September, 2014 in Kolhapur

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Rajaram Puri	91	83	88
Mahalaxmi Mandir	70	49	62
Khas Baug Maidan	91	79	86



# Chart 6.59: Hourly Noise levels on 6th September, 2014 in Kolhapur

#### 12.Satara

The maximum noise level at Satara was observed at all three locations monitored with 73 dB(A) and the minimum noise level was observed at Moti Chowkwith 61 dB(A). The maximum average noise level of 69 dB(A) was observed both at Rajwada and Powai Naka.

Table 6.48: Equivalent Continuous  $(L_{Aeq})dB(A)$ , Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on  $6^{th}$  September, 2014 in Satara

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Powai Naka	73	64	69
Moti Chowk	73	61	67
Rajwada	73	65	69

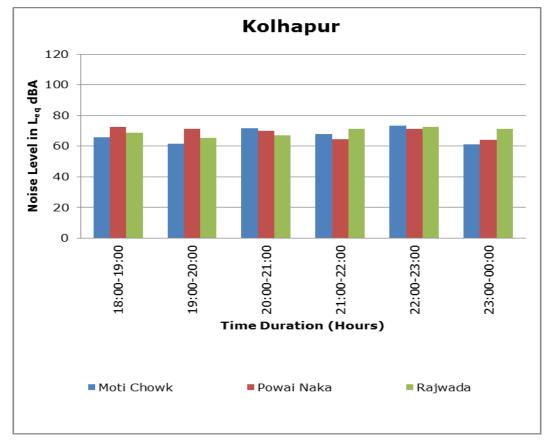


Chart 6.60: Hourly Noise levels on 6th September, 2014 in Satara

# V. Noise Levels on 8<sup>th</sup> September, 2014

On 8<sup>th</sup> September was • Anant Chaturdashi which is considered as the last and biggest day of Ganesh Visarjan. On this day most of the Ganesh idols from Mandals, societies, houses etc. are taken for visarjan after 10 days of Ganesh festival. The noise level on this day was high and in many locations gone beyond 100 dB(A). The increase in noise level was mainly due to the big sized dhols, large number of speakers attached to the vehicle carrying Ganesh idols used during street possession and also due to the crowd who accompanied the Ganesh idols for visarjan.







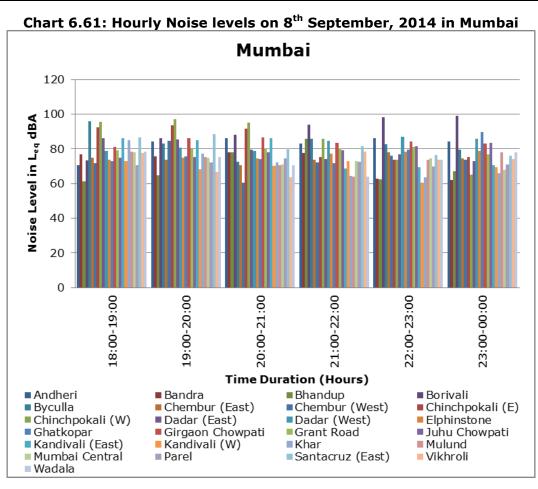
#### 1. Mumbai

The maximum average noise level in Borivali location of Mumbai region was found to be 100 dB(A)on  $8^{th}$  September. Also the maximum noise level of Borivali, Byculla, Chinchpokali (E), Chinchpokali (W) and Ghatkoper of Mumbai region was observed at with 99 dB(A), 96 dB(A), 94 dB(A), 97 dB(A) and 90 dB(A) respectively. The minimum noise level of 60 dB(A) was observed at Kandivali (W).

Table 6.49: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Mumbai

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Andheri	86	67	75
Bandra	76	71	74
Bhandup	76	71	73
Borivali	76	65	72
Byculla	78	71	74
Chembur (E)	74	69	72
Chembur (W)	81	71	75
Chinchpokali (E)	82	76	80
Chinchpokali (W)	75	68	72
Dadar (E)	85	70	77
Dadar (W)	73	67	70
Elphinstone	74	69	72
Ghatkopar	81	71	74
Girgaon Chowpati	81	70	74

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Grant Road	88	70	75
Juhu Chowpati	86	70	76
Kandivali (E)	84	73	77
Kandivali (W)	89	72	77
Khar	85	70	74
Mulund	80	73	75
Mumbai Central	92	71	78
Parel	78	72	75
Santacruz (E)	79	72	75
Vikhroli	78	72	75
Wadala	80	71	74



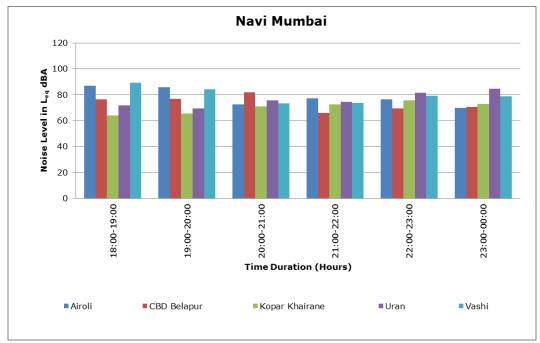
#### 2. Navi Mumbai

The maximum noise level was observed at Vashi with 89 dB(A) and minimum noise level of 64 dB(A) was observed at Kopar Khairane. The maximum average noise level of 80 dB(A) was also observed at Vashi.

Table 6.50: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Navi Mumbai

Traximam (=max) Holbe		beeniber, ber i iii	
Location	$L_{max}$	L <sub>min</sub>	$L_{Aeq}$
Airoli	87	70	78
CBD Belapur	82	66	73
Kopar Khairane	76	64	70
Uran	85	69	76
Vashi	89	73	80

Chart 6.62: Hourly Noise levels on 8<sup>th</sup> September, 2014 in Navi Mumbai



#### 3. Thane

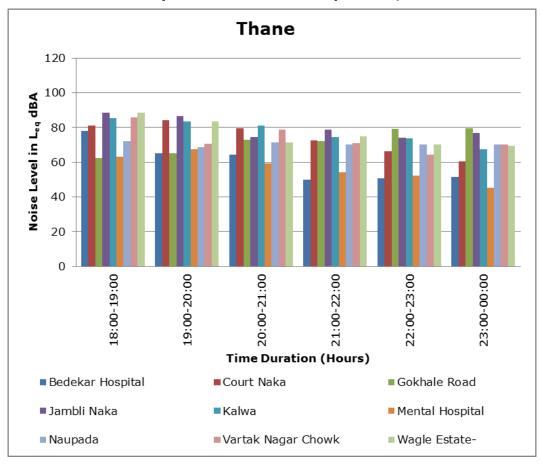
The maximum noise level was observed at Wagle Estate with 89 dB(A) and minimum noise level of 45 dB(A) was observed at Court Naka. The highest average noise level of 80 dB(A) was observed at Jambli Naka.

Table 6.51: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Thane

Location L <sub>max</sub> L <sub>min</sub> L <sub>Aeq</sub>	Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>	

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Gokhale Road	79	62	72
Jambli Naka	88	74	80
Naupada	72	68	70
Vartak Nagar Chowk	86	65	73
Wagle Estate	89	69	76
Court Naka	84	61	74
Mental Hospital	67	45	57
Bedekar Hospital	78	50	60
Kalwa	85	68	78

Chart 6.63: Hourly Noise levels on 8th September, 2014 in Thane



#### 4. Pune

Pune was found to be very noisy on the last day of Ganesh festival showing even average maximum noise level at Laxmi Road and Mahatma Phule Madai with 111 dB(A) and 113 dB(A) respectively. Also, maximum noise level of Laxmi

Road, Mahatma Phule Madai, Koregaon Park, Chapekar Chowk and Pimpiri was found to be 115 dB(A), 119 dB(A), 104 dB(A), 101 dB(A) and 106dB(A) respectively . The minimum noise level of 69dB(A) was observed both at Bhosari Gavthan and Parvati.

Table 6.52: Equivalent Continuous  $(L_{Aeq})dB(A)$ , Minimum  $(L_{min})$  and Maximum  $(L_{max})$  Noise Levels on  $8^{th}$  September, 2014 in Pune

Tiaxiiiaiii (= iiiax) ii	DISC ECTOIS OIL O	September, 201	T III I UIIC
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Shivaji Nagar	93	71	86
Karve Road	95	76	88
Swar Gate	86	80	83
Satara Road	91	77	86
Shaniwar Peth	91	78	83
Yerawada	93	80	88
Laxmi Road	115	106	111
Kothrud	94	83	89
Mahatma Phule Madai	119	110	113
Sarus Baug	87	71	82
Hadapsar	94	82	90
Parvati	94	69	83
Koregaon Park	104	79	97
Khadaki	95	86	92
M G Road	86	79	83
Chapekar Chowk	101	90	97
Pimpri	106	87	99
Thergaon	90	81	86
Navi Sangavi	88	77	83
Bhosari Gavthan	98	69	86

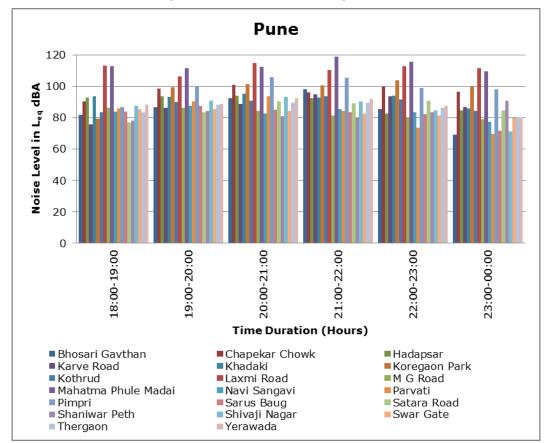


Chart 6.64: Hourly Noise levels on 8th September, 2014 in Pune

#### 5. Nashik

The maximum noise level of 105 dB(A) was observed at Nashik Road and the minimum noise level of 74 dB(A) was observed at Panchvati. The maximum average noise level in the locations monitored was observed at Nashik Road with 100 dB(A).

Table 6.53: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Nashik

Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>
Nashik Road	105	96	100
Panchvati	99	74	88
CBS	100	93	98
CIDCO	90	83	86
Dahi Pool	90	88	89

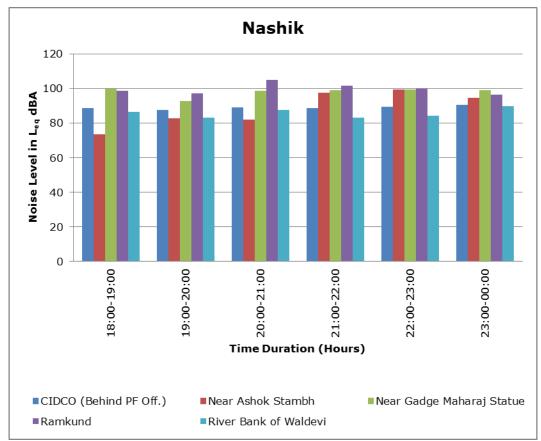


Chart 6.65: Hourly Noise levels on 8th September, 2014 in Nashik

#### 6. Aurangabad

The maximum noise level was observed at City Chowk with 98 dB(A) and the minimum noise level of 63 dB(A) was observed at CIDCO residential. The maximum average noise level was also observed at City Chowk with 93 dB(A).

Table 6.54: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Aurangabad

		p	
Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Gulmandi	97	73	86
City Chowk	98	85	93
Kranti Chowk	93	80	86
CIDCO Residential	82	63	74
Usmanpura	85	72	78

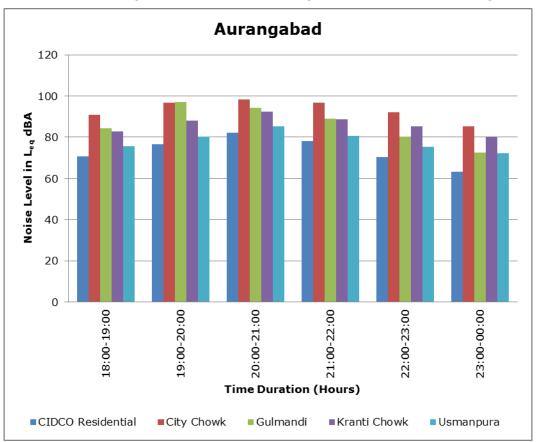


Chart 6.66: Hourly Noise levels on 8th September, 2014 in Aurangabad

#### 7. Nagpur

The maximum noise level at Nagpur was observed at Cotton Marketwith 95 dB(A) and the minimum noise level of 57 dB(A) was found at Ramdaspeth. The maximum average noise level was found at Cotton Market with 66 dB(A).

Table 6.55: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Nagpur

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Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Ramdaspeth	73	57	66
Cotton Market	95	85	90
Golibar Chauk	91	79	85
Reshimbag	84	79	82
Gandhiputala	76	73	74

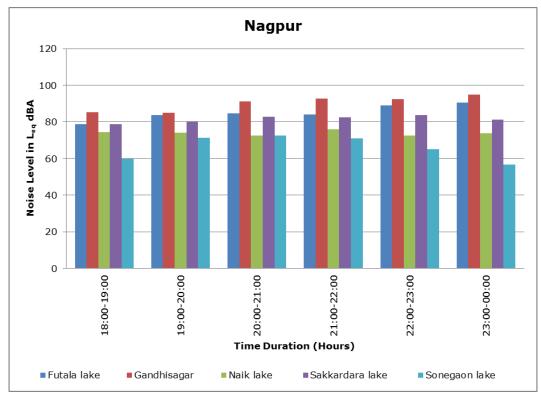


Chart 6.67: Hourly Noise levels on 8th September, 2014 in Nagpur

#### 8. Kalyan

The maximum noise level was observed at Ulhasnagar Station with 93 dB(A) and the minimum noise level of 54 dB(A) was observed both at Shivaji Chawk and Ulhasnagar Station. The maximum average noise level of 78 dB(A) was observed both at Ulhasnagar Station.

Table 6.56: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Kalyan

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Bhiwandi- Dhamankar Naka	90	57	78
Shivaji Chawk	92	54	73
Ulhasnagar Station	93	54	73

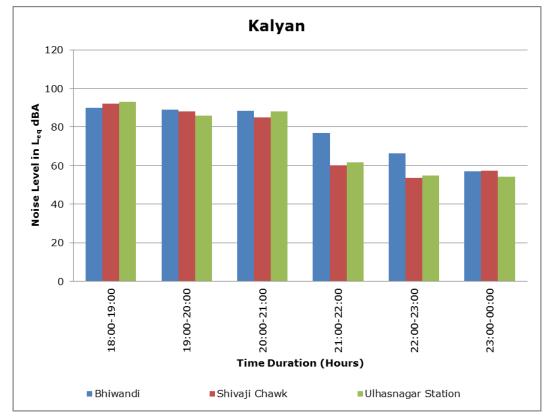


Chart 6.68 Hourly Noise levels on 8th September, 2014 in Kalyan

#### 9. Amravati

The maximum noise level in Amravati was observed at Rajkamal Square with 84 dB(A) and the minimum noise level was observed at Irvin Hospital Square of 60 dB(A). The maximum average noise level was observed at Rajkamal Square with 76 dB(A).

Table 6.57: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Amravati

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Location	L <sub>max</sub>	L <sub>min</sub>	L <sub>Aeq</sub>		
Bhudhwara	81	64	73		
Rajkamal Square	84	68	76		
Irvin Hospital Square	72	60	66		

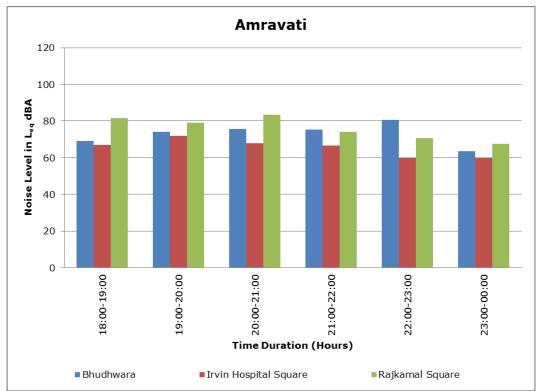


Chart 6.69: Hourly Noise levels on 8<sup>th</sup> September, 2014 inAmravati

#### 10.Jalgaon

The maximum noise level was observed at Shashtri Tower Chowk with  $105 \, dB(A)$  and the minimum noise level was observed at Shanipeth Police Station with  $69 \, dB(A)$ . The maximum average noise level of  $96 \, dB(A)$  was observed at Shashtri Tower Chowk.

Table 6.58: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 6<sup>th</sup> September, 2014 in Jalgaon

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Subhash Chowk	92	85	88
Shashtri Tower Chowk	105	90	96
Shanipeth Police Station	74	69	71

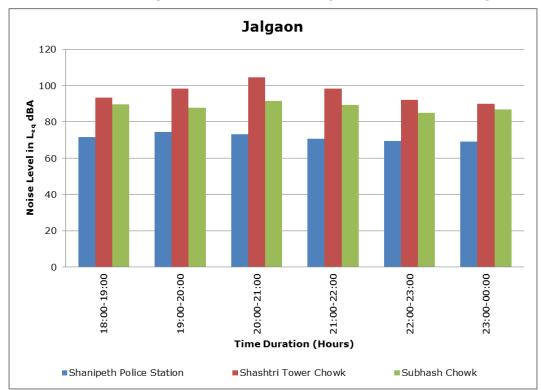


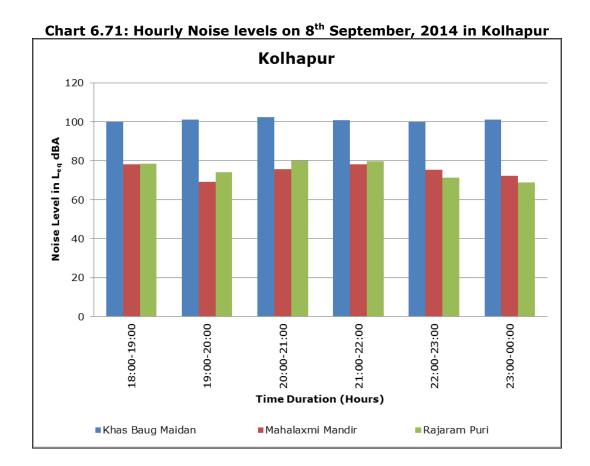
Chart 6.70: Hourly Noise levels on 8th September, 2014 in Jalgaon

#### 11.Kolhapur

The maximum noise level was observed both at Khas Baug Maidanwith 102 dB(A) and the minimum noise level was observed at Rajaram Puri and Mahalaxmi Mandir with 69 dB(A). The maximum average noise level of 101 dB(A) was observed at Khas Baug Maidan.

Table 6.59: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Kolhapur

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Rajaram Puri	80	69	75
Mahalaxmi Mandir	78	69	75
Khas Baug Maidan	102	100	101



#### 12.Satara

The maximum noise level at Satara was observed at Rajwada with 83 dB(A) and the minimum noise level was observed at Powai Nakawith 69 dB(A). The maximum average noise level of 77 dB(A) was observed both at Rajwada and Powai Naka.

Table 6.60: Equivalent Continuous ( $L_{Aeq}$ ) dB(A), Minimum ( $L_{min}$ ) and Maximum ( $L_{max}$ ) Noise Levels on 8<sup>th</sup> September, 2014 in Satara

Location	L <sub>max</sub>	L <sub>min</sub>	$L_{Aeq}$
Powai Naka	85	69	77
Moti Chowk	80	71	76
Rajwada	83	72	77

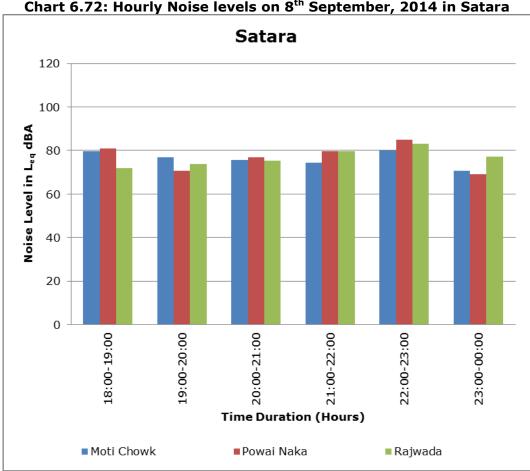


Chart 6.72: Hourly Noise levels on 8th September, 2014 in Satara

#### **Comparative Study of Noise levels**

Comparative study of the last three years, i.e. 2012 - 2014 shows that the average noise levels in all the cities eventhough increased this year is lesser than the noise levels during 2012. There is differnce in the days selcted for noise monitroing on al three years as in 2012 we have monitored the last five days of Ganesh festival, in 2013 we have monitored on the important days of Ganesh festival and now in 2014 we have monitored on important days of noise monitoring with also including days when there was no visargan carrying on.

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

Mumbai: Comparative study shows that this year the highest aveage noise level was observed in Byculla as compared to last 3 years.

Navi Mumbai: The noise level in Navi Mumbai was high this year as compared to last three years. The highest average noise level was observerd at Uran on all five days. **Thane:** In Thane, the noise level was niether less nor higher this year as compared to last three years. The highest noise level was observed at Court Naka on majority of the days monitored.

Pune: Even though the noise level in Pune increased this year, it was lesser as compared to last two years. There was increase in noise level of Koregaon park on majority of the days monitored as compared to the last three years.

Nashik: The noise level in Nashik is similar to those observed in the previous two years.

**Aurangabad:** The noise level in Aurangabad on the first day of monitoring was high as compared to the previous two years.

#### REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014

**Nagpur:** The observed noise level was more or less the same as observed last year.

**Kalyan:** Bhiwandi and Ulhasnagar station was observed with average high noise levels this year.

**Amravati:** The noise level in Amravati remained the same as perious year with no increase or decrease.

**Jalgaon:** In Jalgaon, the average noise level have increased in the last day of monitoring as compared to last two years.

**Kolhapur:** The average highest noise level in Kholapur this year was observed at Mahalaxmi Mandir. Also at Khas Baug Maidan, the average noise level even crossed 100 dB(A) on the last day of monitoring.

**Satara:**In Satara, there was no difference in the noise level observed as compared to last two years.

Annexure VI Noise Levels during Ganesh Festival for last 3 years in different cities of Maharashtra

#### **Conclusion**

It may be seen from the results that noise levels were exceeding the permissible limit during the Ganesh festival 2014 at all 12 cities / towns covered during the survey. In spite of legal standards in place and efforts of regulatory agencies, the noise levels could not be checked and controlled up to the desired levels. When compared with the noise levels observed during the Ganesh festivals of earlier years, we did not see significant change or reductions of noise at Pune.

An increased use of huge loud speakers were seen specially while the Ganesh idols were taken for immersion. This indicates lack of support of people in making Ganesh festival free from noise pollution or at least less noisy in successive years owing to increasing mass awareness.

#### **Definitions**

#### **A-Weighting**

"A-weighting" is the frequency weighting characteristic as specified in IEC 123 or IEC 179 and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound.

#### **A-weighted Sound Pressure Level**

The "A-weighted sound pressure level" is the sound pressure level modified by application of the A-weighting. It is measured in dBA, A-weighted, and denoted as dBA.

#### **Decibel**

The "decibel" is a dimensionless measure of sound level or sound pressure level; see sound pressure level.

#### **Equivalent Sound Level**

The "equivalent sound level" sometimes denoted  $L_{\rm eq}$ , is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is measured in dBA.

#### **Fast Response**

"Fast response" is a dynamic characteristic setting of a sound level meter meeting the applicable specifications.

#### **Percentile Sound Level**

The "x percentile sound level", designated Lx, is the sound level exceeded x percent of a specified time period, It is measured in dBA.

#### Sound

"Sound" is an oscillation in pressure, stress, particle displacement or particle velocity, in a medium with internal forces (e.g. elastic, viscous), or the superposition of such propagated oscillations, which may cause an auditory sensation.

#### **Sound Level**

"Sound level" is the A-weighted sound pressure level.

#### **Sound Level Meter**

A "sound level meter" is an instrument which is sensitive to and calibrated for the measurement of sound.

#### **Sound Pressure Level**

The "sound pressure level" 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  $\mu$ Pa. Thus the sound pressure level in dB = 20 log10 P/Pr.

# **Glimpses of the Event**



#### **REPORT ON AMBIENT NOISE MONITORING DURING GANESH FESTIVAL - 2014**



# Annexure - I

# ध्वनी प्रदूषण (नियंत्रण व नियमन) <u>नियम, २०००</u> ची प्रभावीयणे 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 मजला, मादाम 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 प्रवूषण (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 सदस्य प्राधिकरण म्हणून ध्वनी प्रदूषण नियमाची अंमलबजावणी करण्यासाठी नियुक्ती करण्यात आली आहे.

मा. उच्च न्यायालय, मुंबई खंडपीठाने वरील याचिकांमध्ये महाराष्ट्र शासन व इतर विभागांनी ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० ची प्रभावी अंमलबजावणी करण्याकरीत्र विनांक २६/२/२००९ 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 त्वरीत जाहिर करून योग्य ते आदेश काढावेत. तसेच शहरात शांतता झोनचे फलक लावून आदेशाची प्रभावी अंमलबजावणी करण्यासाठी योग्य ती प्रसिध्दी करावी.
  - ?) शैक्षणिक संस्थाच्या सभोवताली १०० मीटर क्षेत्र
  - २) सर्व न्यायालयाच्या सभोवतीली १०० मीटर क्षेत्र
  - 3) रुग्णालयाच्या सभोवताली १०० मीटर क्षेत्र
- २) ध्वनी प्रदूषणाची वाढती पातळी व निरिनराळे प्रदूषण स्त्रोत विचारात घेता, शासनाच्या निरिनराळ्या विभागांनी सद्यःस्थितीत ते राबवीत असलेल्या नियमाद्वारे ध्वनी प्रदूषण नियंत्रण व नियमनाची अंमलबजावणी करावी. त्याकरिता परिशिष्ट १ मध्ये नमूद केल्याप्रमाणे, शासनाच्या संबंधित विभागांच्या अधिपत्याखालील संस्थांच्या अधिकाऱ्यांना पदनास प्राधिकरण म्हणून जाहीर करण्यात येत आहे. याबाबत संबंधीत

4. [ \$006-8-6-8-66 ] -6

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विभागांनी स्वतंत्र आदेश निर्गमित करावेत. सदर प्राधिकरण, ते राजवित असलेल्या नियमाच्या तस्तुदीनुसार तसेर ध्वनी प्रदूषण (नियंत्रण व नियमन) नियम, २००० च्या तस्तूदीनुसार ध्वनी प्रदूषण नियंत्रण व नियमनाचीर कार्यवाही करण्यास सक्षम असेल.

- 3) ध्वनी प्रदूषण करणारे उपकरणे / स्त्रोत 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 a 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 इत्यादीची, सभोवतालच्या हवेतील ध्वनी प्रदूषण गुणवत्तेच्या विहित मर्यादा परिशिष्ट २ मध्ये नमूद केल्याप्रमाणे असेल.
- 8) 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.

(ग.।न.वराड) संचालक (पर्यावरण)

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अतिरिक्त मुख्यसचिव, सार्वजनिक आरोग्य विभाग, मंत्रालय

प्रधान सचिव (अ. व सु.), गृह विभाग

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प्रधान सचिव, नगर विकास विभाग (२), मंत्रालय

प्रधान सचिव, नगर विकास विभाग (२), मंत्रालय

प्रधान सचिव, महसूल विभाग, मंत्रालय प्रधान सचिव, उच्च व तंत्रशिक्षण विभाग, मंत्रालय प्रधान सचिव, उच्च व तंत्रशिक्षण विभाग, मंत्रालय, प्रधान सचिव, शालेय शिक्षण विभाग, मंत्रालय सचिव, गृह विभाग (परिवहन),

सचिव, पर्यावरण

A.

B.

मा. मंत्री (पर्यावरण), यांचे खाजगी सचिव, मा. राज्यमंत्री (पर्यावरण), यांचे खाजगी सचिव, सर्व मा. मंत्री / राज्यमंत्री यांचे खाजगी सचिव सर्व जिल्हाधिकारी

सर्व जिल्हाधिकारा सर्व पोलीस आयुक्त / उप आयुक्त

सर्व जिल्हा पोलीस अधिक्षक / उप अधिक्षक

पर्यावरण विभाग सर्व अधिकारी / कार्यासन /निवडनस्ती - तांक १

परिशिष्ट -

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

Sr. No		Concerned	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.		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.	Developement	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.
	CHI SCHOOLIN GROY  CHICAGO II GARAGO II GARAGO  SA CARCARA SANCA DOS  SANCA DA SANCA DA SANCA DOS  SANCA DA S		The urban local bodies shall be responsible for demarcation of the silent zones as per the Noise Rules, 2000 and displaying the same adequately.
	Autor care 1965 At 1 Survive wideler earli Transfer in Survive (1974)	to share the to share the share the to the share the to the share the total share the	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.
			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.
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.
	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

(E) (M)	6.	Head of M.M.R.D.A., M.S.R.D.C.	, Urban	jurisdiction.
		C.I.D.C.O., having local jurisdiction constituted under various Laws and Public Works Department.	. D	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
7		Member Secretary and		These Developmental Authorities should include adequate nois abatement measures in their projectivities such as noise barriers to the bridges and flyovers, tree plantation for roads etc.
		Member Secretary and any officer Maharashtra Pollution Control Board not below the rank of the Deputy Superintendent of Police	Environment Department	(i) Monitoring of Ambient Noise Level in case of specific requests from othe authorities referred in the table and communicating the results to the respective Authorities for further necessary action at their end.  (ii) For the enforcement of Noise Pollution Control Measures and
8.	ti	(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  (ii) Head of Maharashtra State Road Transport Corporation or any officer/ Depot Manager not below the rank of the Deputy Superintendent of Police.	Home Department (Transport)	Standards in industrial areas.  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.  The noise levels generated by the inuse vehicles should be monitored while grant of Pollution Under Control Certificate.
0.81	b	iii) Traffic Police Authorities not selow the rank of the Deputy superintendent of Police		

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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) Leg*		
		Day Time	Night Time	
(A)	Industrial Area	75	70	
(B)	Commercial Area	65	55	
(C)	Residential Area	55	45	
(D)	Silence Zone	50	40	

- 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) Leg, 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.

- 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, Lw of a DG set should be less than, 94+10 log<sub>10</sub> (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.

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

- (C) Guidelines for the manufacturers/users of DG sets (5 KVA and above).
- O1. 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).
- O2. 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.
- The manufacturer should furnish noise power levels of the unsilenced DG sets as per standards prescribed under (A).
- O4. 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).
- Installation of a DG set must be strictly in compliance with the recommendations of the DG set manufacturer.
- O6. 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.

# Noise Lavel Standards for Coal Washerles

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/Nm<sup>S</sup> or provided with adequate water sprinkling arrangement.
- Water sprinkling by using fine atomizer nozzeles 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.

Vehicles movement in the coal washery area shall be regulated effectively to avoid traffic congestion. High pressure norn 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(AI) or 145 dB(C)<sub>pk</sub> 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<sub>10</sub> (N) dB, where N=Number of crackers joined together.
- B. The broad requirements for measurement of noise from fire-crackers shall be-
  - 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 1<sup>st</sup> 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.

# 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 <sup>st</sup> January, 2003	
	Displacement upto 80 cm <sup>3</sup>	75	90271.5	
	Displacement more than 80 cm <sup>3</sup> but upto 175 cm <sup>3</sup>	77	ar art av	
	Displacement more than 175 cm <sup>3</sup>	89	- SENCES	
2.	Three Wheeler	See By The State	1 <sup>st</sup> January, 2003	
i.	Displacement upto 175 cm <sup>3</sup>	77		
	Displacement more than 175 cm <sup>3</sup>	80	ni sul cos	
3.	Passenger Car	75	1st January, 2003	
4.	Passenger or Commercial Vehicles	Anni menon to resultati neuropsisa benta	dist sitt promisional	
		THE STATE OF THE S	1 <sup>st</sup> 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		

# (2) Noise Limits for vehicles at manufacturing stage applicable on and from 1<sup>st</sup> 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	· Tu-st-stip
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 - 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6
4.0	Vehicles used for the carriage of passengers ha including the driver's seat and a maximum Gros more than tonnes	ving more than nine seat s Vehicle Weight (GVW) o
4.1	With an engine power less than 150KW	78
4.2		10
	With an engine power of 150 KW or above	80
5.0	Vehicles used for the carriage of passengers has	80
		80
5.1	Vehicles used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had included the carriage of passengers had included the carriage of passengers had included the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had including the driver's seat: Vehicle used for the carriage of passengers had included the driver's seat: Vehicle used for the carriage of passengers had included the driver's seat: Vehicle used for the carriage of passengers had included the driver's seat: Vehicle used for the carriage of passengers had included the driver's seat of the carriage of passengers had included the driver's seat of the carriage of the	80 ving more than nine seats rriage of goods.
5.1	Vehicles used for the carriage of passengers had including the driver's seat: Vehicle used for the call With a maximum GVW not exceeding 2 tonnes  With a maximum GVW greater than 3 tonnes	80 ving more than nine seats rriage of goods.  76
5.1	Vehicles used for the carriage of passengers had including the driver's seat: Vehicle used for the car.  With a maximum GVW not exceeding 2 tonnes.  With a maximum GVW greater than 3 tonnes but not exceeding 3.5 tonnes.	80  ving more than nine seats rriage of goods.  76
5.1	Vehicles used for the carriage of passengers had including the driver's seat: Vehicle used for the car.  With a maximum GVW not exceeding 2 tonnes.  With a maximum GVW greater than 3 tonnes but not exceeding 3.5 tonnes.  Vehicles used for the transport of goods with a mattonnes.	ving more than nine seats rriage of goods.  76  77  ximum GVW exceeding 3.5

# 7. Noise Standards Part E:-

Α	Noise manut	limits for Automobiles (Free Field Distance at 7.5 meter in dB(A) at the facturing stage.	1027
81	(a)	Motorcycla, Socoters and Three Wheelers 80	
	(b)	Passenger Cars 82	
	(ċ)	Passenger or Commercial vehicles upto 4 MT 85	
	(d)	Passenger or Commercial vehicles above 4 MT and 89	
		Upto 12 MT	
	(e)	Passenger or Commercial vehicles exceeding 12 MT 91	

B. Domestic appliances and construction equipments at the manufacturing stage to be achieved by 31<sup>st</sup> December, 1993.

(a)	Window Air Conditioners of 1 ton to 1.5 ton	68	
(b)	Air Coolers	60	
(c)	Refrigerators	46	
(d)	Diesel generator of domestic purposes	85-90	
(e)	Compactors (rollers), Front Loaders, Concrete	75	
	Mixers, Cranes (moveable), Vibrators and Saws	an interest they	- V
	and read from pulling ampropriation because of not		

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### Annexure - II

### **Detailed List of Locations in Maharashtra**

Sr.	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, 4 <sup>th</sup> 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

Sr.	City	Location Name (details)
	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. Sarvajanik 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)

Sr.	City	Location Name (details)
	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/ Ramkund (on - 08.09.2014)
	Nashik	Panchvati/ Near Ashok Stambh (on - 08.09.2014)
	Nashik	CBS / Near Gadge Maharaj Statue (on - 08.09.2014)
	Nashik	CIDCO/ River Bank of Waldevi (on - 08.09.2014)
	Nashik	Dahi Pool/ CIDCO (Behind PF Off.) (on - 08.09.2014)
6.0	Aurangabad	Gulmandi
	Aurangabad	City Chowk
	Aurangabad	Kranti Chowk
	Aurangabad	CIDCO Residential
	Aurangabad	Usmanpura
7.0	Nagpur	Ramdaspeth/*Naik Talao (*29.09.2012)
	Nagpur	Cotton Market/*Sonegaon Lake(*29.09.2012)
	Nagpur	Golibar Chauk/*Ghandhi Sagar(*29.09.2012)
	Nagpur	Reshimbag/*Futala Lake(*29.09.2012)
	Nagpur	Gandhiputala/*Sakkardara Lake (*29.09.2012)
8.0	Kalyan	Bajar peth Police station
	Kalyan	Shivaji Chawk
	Kalyan	Camp No 1, Goal Maidan, Ulhasnagar
9.0	Amaravati	Budhwara
	Amaravati	Rajkamal Square

Sr.	City	Location Name (details)
	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 - III

### Sound Level Meter MS 6701, Type II



## **Annexure - IV**

	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00
	- 07:00	- 08:00	- 09:00	- 10:00	- 11:00	- 12:00	- 13:00	- 14:00	- 15:00	- 16:00	- 17:00	- 18:00	- 19:00	- 20:00	- 21:00	- 22:00	- 23:00	- 00:00	- 01:00	- 02:00	- 03:00	- 04:00	- 05:00	- 06:00
Location	07.00	00.00	03.00	10.00	11.00	12.00	13.00	14.00	13.00		umbai		Augus			22.00	23.00	00.00	01.00	02.00	03.00	04.00	03.00	00.00
Andheri	67	69	67	69	68	71	76	77	84	74	75	76	54	55	52	49	79	74	76	78	78	78	76	75
Bandra	61	68	66	76	71	76	82	82	96	85	93	87	77	75	67	67	58	66	59	60	64	63	68	62
Bhandup	58	57	50	49	48	53	95	82	71	69	68	63	66	72	60	72	50	51	48	46	42	48	53	62
Borivali	66	69	81	72	73	72	65	71	72	75	73	82	66	68	67	70	89	87	54	53	48	48	44	55
Byculla	74	69	75	70	77	71	67	89	90	92	96	83	72	86	83	79	59	63	72	75	68	70	67	68
Chembur (E)	74	72	73	76	80	52	71	60	62	57	75	74	71	74	78	74	86	91	78	68	62	57	56	63
Chembur (W)	80	77	75	75	75	69	84	75	77	78	74	76	76	70	76	75	74	71	81	79	65	62	60	62
Chinchpokali (E)	71	71	70	75	71	74	79	82	82	83	81	72	67	62	57	61	79	77	82	83	90	85	83	87
Chinchpokali (W)	74	72	79	79	80	81	84	83	81	79	81	79	72	77	76	70	87	86	72	77	76	70	65	62
Dadar (E)	67	63	60	62	63	64	58	61	72	82	72	61	68	74	73	80	60	62	65	77	62	71	61	81
Dadar (W)	67	70	72	74	72	71	71	71	73	76	72	76	73	75	75	74	76	77	82	66	70	70	77	69
Elphinstone	68	66	68	69	66	67	70	69	67	65	61	57	62	59	63	63	71	69	69	64	60	66	66	67
Ghatkopar	72	65	69	65	67	96	79	67	71	66	60	60	65	61	64	62	61	66	57	56	47	44	49	59
Girgaon Chowpati	69	72	76	73	71	71	76	77	84	76	81	73	74	74	76	87	57	57	71	79	82	74	74	79
Grant Road	81	86	86	83	86	86	66	74	66	65	66	68	64	69	74	76	72	69	75	75	81	85	82	74
Juhu Chowpati	59	71	73	78	69	77	68	64	62	68	68	73	69	98	96	95	76	72	45	46	52	60	75	75
Kandivali (E)	73	64	60	61	57	67	71	51	57	67	59	66	78	64	75	76	59	60	54	56	54	58	57	60
Kandivali (W)	69	70	77	79	71	72	69	60	70	73	79	81	71	78	78	61	58	66	59	60	64	63	68	62
Khar	75	75	75	76	78	77	78	78	75	74	75	74	77	78	79	76	50	51	48	46	42	48	53	62
Mulund	73	73	72	74	74	73	73	72	72	73	76	74	72	79	90	86	89	87	54	53	48	48	44	55
Mumbai Central	76	74	74	72	75	76	78	73	80	81	86	87	84	84	83	85	68	69	68	67	62	65	69	72
Parel	69	70	68	67	71	72	79	78	77	79	80	80	80	81	77	80	63	60	72	70	68	73	75	83
Santacruz (E)	68	69	72	72	74	73	73	74	75	75	75	78	79	82	83	74	72	63	78	77	77	74	68	66
Vikhroli	88	65	69	67	69	72	79	74	74	74	75	74	75	75	73	76	49	50	89	88	88	90	89	89
Wadala	60	60	60	62	66	67	68	67	68	68	73	70	61	53	59	50	72	61	71	70	73	75	64	66
										Navi		bai (2	9 <sup>th</sup> Au	gust 2	014)									
Airoli	69	88	89	87	80	78	76	75	73	76	77	81	79	89	85	90	64	66	71	72	76	73	75	79
CBD Belapur	61	68	71	70	75	78	73	78	73	80	82	85	89	94	88	88	63	69	74	69	68	74	69	71
Kopar Khairane	60	66	67	70	73	72	68	72	73	72	72	72	74	76	80	81	76	70	72	68	66	60	58	67
Uran	74	72	75	73	73	76	76	72	76	78	75	80	77	88	83	93	71	71	72	60	46	45	47	53
Vashi	60	65	67	70	75	73	70	72	66	65	69	65	71	75	66	69	69	65	96	79	67	71	66	60
			1		1				1				Augus			1		1		1				ļ
Gokhale Road	65	78	72	71	70	80	79	65	64	72	80	82	79	82	72	65	83	80	80	82	77	72	80	80
Jambli Naka	66	70	74	73	69	70	78	73	72	69	71	70	72	73	69	70	84	68	58	54	39	42	43	47
Naupada	64	71	75	76	75	76	78	71	77	75	79	75	79	80	83	84	67	59	54	51	50	44	44	49
Pokhran Road	69	74	76	78	73	70	72	80	72	71	74	79	81	84	81	79	56	54	52	52	45	49	57	49

	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00
	- 07:00	- 08:00	- 09:00	10:00	- 11:00	- 12:00	- 13:00	- 14:00	- 15:00	- 16:00	- 17:00	- 18:00	- 19:00	20:00	- 21:00	- 22:00	- 23:00	- 00:00	- 01:00	- 02:00	- 03:00	- 04:00	- 05:00	- 06:00
Wagle Estate	60	62	70	69	70	71	72	72	72	71	71	72	74	80	80	64	62	58	42	49	50	47	49	53
Court Naka	65	65	70	69	70	73	80	78	75	77	75	71	79	79	79	74	67	64	62	65	55	54	54	56
Mental Hospital	64	65	70	71	70	72	95	70	67	68	71	69	69	62	72	72	68	64	58	54	54	55	59	62
Bedekar Hospital	69	70	71	75	73	72	74	72	71	72	72	74	75	78	78	77	66	58	52	53	50	48	48	68
Kalwa	71	77	76	80	79	75	75	77	86	84	81	87	84	89	83	83	72	65	48	45	42	42	47	45
							•		•		Pune (	29 <sup>th</sup> A	ugust	2014	)							•		
Shivaji Nagar	59	66	80	76	78	77	81	73	72	74	80	83	77	82	81	81	74	70	66	63	59	56	55	57
Karve Road	56	69	73	77	82	89	88	72	68	64	73	73	75	84	84	74	69	60	58	54	52	51	53	55
SwarGate	53	67	69	80	84	84	85	84	85	86	85	84	83	83	83	81	76	74	70	62	59	55	54	58
Satara Road	50	53	57	81	79	82	80	76	72	70	70	83	87	82	70	67	64	64	55	54	50	49	49	54
Shaniwar Peth	70	73	76	74	78	75	78	74	72	72	82	82	78	81	86	75	73	69	67	60	51	50	51	63
Yerawada	55	62	71	70	77	73	72	71	68	68	73	79	79	80	79	81	73	71	63	57	56	51	50	57
Laxmi Road	56	62	79	81	101	97	90	98	89	100	79	79	84	79	68	64	60	56	54	53	51	50	50	54
Kothrud	51	53	61	68	74	78	75	67	66	72	75	76	77	82	80	72	63	55	54	51	49	49	51	53
Mahatma Phule Madai	56	63	76	97	105	100	75	71	73	72	74	80	82	80	63	57	56	50	50	49	49	48	50	52
Sarus Baug	50	52	56	85	80	83	82	80	74	73	72	81	85	80	72	69	64	60	55	53	51	50	49	51
Hadapsar	52	61	71	77	75	72	73	75	69	71	75	77	70	81	86	82	72	65	54	50	49	48	49	54
parvati	45	53	56	84	81	81	81	77	81	77	76	83	87	66	62	63	61	55	51	50	50	49	51	54
Koregaon Park	67	75	78	86	90	84	66	68	77	85	94	81	84	81	81	80	70	71	56	54	50	49	51	60
Khadaki	50	68	72	73	77	79	80	78	75	77	72	77	80	81	83	83	68	59	54	52	50	49	48	54
M G Road	47	50	53	55	78	84	85	82	83	83	83	84	83	80	79	77	72	70	69	55	51	50	49	50
Chapekar Chowk	60	80	84	67	87	86	90	87	82	80	81	82	81	83	83	83	76	72	64	60	54	50	50	54
Pimpri	64	65	71	74	79	76	75	75	74	75	78	78	73	74	69	82	73	69	64	60	56	53	53	58
Thergaon	59	69	79	83	79	79	78	81	79	83	85	87	81	80	79	79	78	69	60	55	54	52	50	58
Navi Sangavi	56	58	67	75	74	75	74	72	69	70	66	73	76	78	83	81	76	72	64	57	52	50	51	54
Bhosari Gavthan	63	67	65	74	65	65	73	72	77	82	74	81	77	75	78	68	69	65	56	56	50	49	57	55
								1			ashik			t 2014										
Nashik Road	95	93	94	86	70	79	98	97	95	96	93	93	91	92	82	90	82	80	80	79	75	87	57	57
Panchvati	74	78	83	82	81	84	79	84	89	87	82	98	94	95	90	101	91	90	87	85	84	82	71	86
CBS	90	74	82	74	66	66	62	63	62	63	65	71	89	83	80	85	76	83	82	93	83	72	66	59
CIDCO	73	66	73	68	68	67	65	61	61	63	67	82	78	86	82	86	89	87	69	68	65	64	63	62
Dahi Pool	53	56	67	64	71	71	75	74	80	67	83	81	. 76	78	84	80	88	84	81	79	65	74	65	74
						T	1	•	1			ad (29		just 20							·	,		T
Gulmandi	70	72	77	79	80	80	78	77	76	75	76	80	78	77	75	70	69	67	65	63	59	53	57	60
City Chowk	67	70	71	72	73	74	75	75	74	75	73	70	73	78	76	69	67	67	65	61	57	54	56	61
Kranti Chowk	69	72	73	76	77	76	78	73	75	73	74	74	77	79	78	74	68	68	66	65	61	57	59	63

107

	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00
	- 07:00	- 08:00	- 09:00	- 10:00	- 11:00	- 12:00	- 13:00	- 14:00	- 15:00	- 16:00	- 17:00	- 18:00	- 19:00	- 20:00	- 21:00	- 22:00	23:00	- 00:00	- 01:00	- 02:00	- 03:00	- 04:00	- 05:00	- 06:00
CIDCO Residential	58	62	66	66	67	68	65	63	62	65	67	67	66	73	64	63	60	56	54	52	47	45	49	55
Usmanpura	65	68	70	72	71	68	70	69	69	68	68	74	68	68	65	63	63	59	56	55	50	48	53	56
•										N	agpur	(29 <sup>th</sup>	Augus	st 201	4)			•				•	•	
Ramdaspeth	49	55	57	57	56	61	57	57	58	57	56	57	59	65	54	61	59	50	43	42	43	43	47	63
Cotton Market	66	71	77	76	78	76	77	73	68	68	72	70	68	68	70	70	72	64	60	54	50	61	57	64
Golibar Chauk	60	65	67	76	73	70	74	71	70	67	69	71	72	78	78	76	77	74	67	55	43	46	51	59
Reshimbag	51	49	64	73	74	74	81	84	64	68	75	79	80	79	79	75	69	58	51	51	52	53	53	56
Gandhiputala	64	67	81	83	86	84	80	76	80	87	92	88	88	83	86	83	83	73	70	64	60	57	54	64
										K	alyan	(29 <sup>th</sup>	Augus	t 2014	4)									
Bhiwandi	53	55	65	73	79	72	69	77	75	68	75	81	73	70	79	77	72	70	72	69	62	56	55	64
Shivaji Chawk	57	63	68	70	83	71	85	80	77	69	56	74	69	75	84	79	76	79	72	66	61	60	55	61
Ulhasnagar Station	65	63	74	75	74	74	75	75	76	71	75	79	75	74	68	62	61	51	51	49	41	43	45	44
										An	ıravat	i (29 <sup>th</sup>	<sup>1</sup> Augu	st 201	L4)									
Bhudhwara	51	54	56	61	65	67	58	75	67	76	76	80	78	76	71	70	59	57	52	51	46	45	46	43
Rajkamal Square	65	68	70	75	85	78	80	82	81	82	82	80	85	85	87	87	74	67	63	53	48	45	46	49
Irvin Hospital Square	53	59	61	60	60	61	61	67	66	61	66	63	64	63	65	61	57	53	50	45	45	40	40	44
										Ja	lgaon	(29 <sup>th</sup>	Augus	st 201	4)			•				•	•	
Subhash Chowk	84	79	88	83	78	70	73	77	70	84	79	84	74	72	69	74	68	79	83	77	77	66	64	56
Shashtri Tower Chowk	87	90	78	76	74	70	80	70	78	66	79	70	74	73	67	69	79	75	46	56	60	46	53	56
Shanipeth Police Station	78	72	71	66	66	64	75	74	68	82	82	79	70	78	73	76	74	69	56	54	41	58	56	66
										Ко	lhapu	r (29 <sup>th</sup>	Augu	st 201	L4)			•				•	•	
Rajaram Puri	50	45	50	72	79	82	85	71	80	82	86	93	98	99	102	100	96	93	86	85	56	46	42	43
Mahalaxmi Mandir	40	56	55	68	72	69	72	65	78	77	78	79	65	72	77	79	69	66	62	55	45	43	56	42
Khas Baug Maidan	42	49	78	79	85	89	87	78	84	89	98	99	99	99	95	102	99	87	72	87	73	48	41	42
										S	atara	(29 <sup>th</sup> /	Augus	t 2014	1)									
Powai Naka	41	46	50	50	68	70	74	73	75	71	67	70	69	81	79	79	75	72	67	67	55	50	40	50
Moti Chowk	42	46	56	45	68	76	79	80	75	73	70	79	82	84	85	80	78	73	72	55	45	40	43	41
Rajwada	41	40	48	51	61	75	78	71	67	77	79	70	69	78	72	71	69	65	44	41	42	40	41	40

	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
		M	umbai (30 <sup>th</sup>	August 201	4)			Mu	mbai(3 <sup>rd</sup> Se	ptember 20	14)	
Andheri	81	77	79	79	74	76	74	73	75	75	74	79
Bandra	78	76	78	77	70	82	77	76	75	74	72	71
Bhandup	79	75	85	74	70	68	77	77	79	79	69	68
Borivali	78	74	71	76	82	68	78	82	81	76	78	78
Byculla	77	79	84	79	78	74	79	78	78	74	75	71
Chembur (E)	70	77	68	75	85	79	59	58	53	57	63	54
Chembur (W)	68	70	71	74	71	69	72	72	60	69	73	71
Chinchpokali (E)	81	94	86	76	93	78	71	73	73	70	72	72
Chinchpokali (W)	67	72	77	72	92	80	78	74	79	82	80	79
Dadar (E)	76	76	80	98	68	66	70	79	79	74	73	63
Dadar (W)	69	67	58	76	76	57	74	74	75	73	71	69
Elphinstone	79	72	69	90	89	73	51	65	71	61	59	66
Ghatkopar	82	76	70	65	94	88	78	82	80	65	55	46
Girgaon Chowpati	76	80	81	63	79	85	75	76	74	71	82	70
Grant Road	67	63	67	69	86	88	82	81	75	66	58	54
Juhu Chowpati	80	75	66	67	88	77	77	66	72	71	75	73
Kandivali (E)	81	69	82	84	79	80	78	78	78	78	78	75
Kandivali (W)	82	72	72	73	80	82	72	68	74	67	70	69
Khar	81	80	81	73	100	85	73	74	72	75	73	72
Mulund	92	81	84	90	80	79	69	71	72	68	67	69
Mumbai Central	65	65	82	72	78	90	77	82	77	79	72	71
Parel	88	73	70	72	76	103	80	66	67	65	65	64
Santacruz (E)	82	81	78	74	79	80	70	72	71	72	73	70
Vikhroli	87	81	77	77	71	70	75	77	77	78	75	74
Wadala	95	90	94	82	67	79	74	82	79	84	82	77
			Mumbai (3	0 <sup>th</sup> August 2					1umbai (3 <sup>rd</sup>	September		
Airoli	80	72	78	71	76	70	73	73	71	68	64	62
CBD Belapur	87	81	81	85	85	84	71	74	74	75	72	66
Kopar Khairane	101	97	93	93	93	92	72	72	69	69	66	62
Uran	91	94	94	93	93	93	80	76	81	81	72	65
Vashi	83	84	94	88	81	90	74	79	84	82	81	78
				ugust 2014						tember 201		
Gokhale Road	78	73	84	76	76	72	74	77	75	78	76	68
Jambli Naka	73	74	73	77	71	71	80	74	75	75	74	69
Naupada	72	76	71	75	75	82	63	70	62	60	58	54
Pokhran Road	77	71	76	72	76	73	72	71	82	73	65	68
Wagle Estate	72	76	72	73	67	75	69	79	74	69	73	68

	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
Court Naka	78	73	66	71	72	80	72	73	72	70	67	61
Mental Hospital	55	59	65	65	64	65	70	72	74	69	64	60
Bedekar Hospital	68	69	65	65	66	68	75	78	80	79	68	67
Kalwa	68	80	75	70	79	82	76	75	76	75	74	71
Raiwa	- 55		Pune(30 <sup>th</sup> A			02	70			tember 2014		, , <u>, , , , , , , , , , , , , , , , , </u>
Shivaji Nagar	79	74	82	88	79	67	76	85	88	87	83	68
Karve Road	69	77	83	78	69	62	75	84	87	90	77	76
SwarGate	85	84	83	82	81	78	84	85	85	83	81	80
Satara Road	74	80	86	81	87	72	75	79	81	82	80	68
Shaniwar Peth	74	76	77	73	70	70	79	80	82	79	78	74
Yerawada	79	76	79	78	77	71	79	74	76	77	76	65
Laxmi Road	78	77	69	68	70	59	98	100	94	84	73	68
Kothrud	65	72	79	75	65	56	67	74	78	88	76	61
Mahatma Phule Madai	77	84	70	70	64	59	100	99	92	94	74	66
Sarus Baug	83	81	80	74	70	65	81	80	75	73	66	61
Hadapsar	81	80	83	86	83	67	86	82	85	83	84	71
parvati	87	89	83	80	71	66	82	82	80	74	66	62
Koregaon Park	78	80	82	80	73	65	71	81	100	78	68	80
Khadaki	83	83	85	85	79	68	79	84	88	87	79	69
M G Road	84	84	83	80	77	69	85	86	82	81	81	77
Chapekar Chowk	79	81	78	83	73	73	81	82	81	87	84	76
Pimpri	78	79	79	76	69	63	77	78	78	75	70	67
Thergaon	78	78	82	79	75	69	77	78	79	79	79	73
Navi Sangavi	79	78	80	85	74	62	76	81	87	85	83	67
Bhosari Gavthan	72	78	77	89	79	67	77	91	74	79	70	64
			ashik (30 <sup>th</sup> .	August 2014						tember 201		
Nashik Road	87	85	80	84	76	81	88	92	79	83	81	74
Panchvati	101	89	87	89	91	83	99	95	93	93	88	86
CBS	89	83	91	85	85	87	90	91	89	89	86	71
CIDCO	79	75	77	74	78	86	63	72	81	74	78	86
Dahi Pool	80	90	83	84	76	81	84	88	86	82	74	68
			angabad (30							September 2		
Gulmandi	73	75	73	69	69	66	76	77	79	73	67	63
City Chowk	71	72	75	69	66	64	70	69	74	68	67	65
Kranti Chowk	73	77	77	74	72	68	76	77	79	77	69	68
CIDCO Residential	61	63	65	60	58	55	65	70	65	60	57	54
Usmanpura	67	70	72	68	65	62	67	68	72	66	65	63

	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
		N	agpur (30 <sup>th</sup>	August 201	4)			Na	gpur (3 <sup>rd</sup> Se	ptember 20	14)	-
Ramdaspeth	59	61	60	62	54	54	64	63	62	54	56	53
Cotton Market	72	72	72	69	69	63	72	72	73	76	69	66
Golibar Chauk	70	71	74	67	65	59	68	72	72	68	66	64
Reshimbag	81	82	84	78	66	65	78	79	79	78	73	66
Gandhiputala	71	73	75	76	70	66	75	75	72	71	73	68
		K	alyan (30 <sup>th</sup>	August 2014	4)			Ka	lyan (3 <sup>rd</sup> Se	ptember 20:	14)	
Bhiwandi	79	82	75	82	88	73	72	67	75	67	66	66
Shivaji Chawk	71	78	82	76	73	73	86	74	78	67	58	48
Ulhasnagar Station	79	79	74	85	78	80	67	68	72	76	71	74
		An	nravati (30 <sup>ti</sup>	h August 201	L4)			Amı	ravati(3 <sup>rd</sup> Se	eptember 20	)14)	
Bhudhwara	63	67	67	64	63	61	68	77	81	75	75	70
Rajkamal Square	85	76	75	74	73	70	80	75	77	74	72	68
Irvin Hospital Square	64	62	62	59	57	53	61	63	67	66	67	64
		Ja	lgaon (30 <sup>th</sup>	August 201	4)			Jal	gaon(3 <sup>rd</sup> Se	ptember 20	14)	
Subhash Chowk	83	78	80	74	69	68	80	77	74	73	72	71
Shashtri Tower Chowk	83	80	80	75	72	71	89	78	76	74	70	70
Shanipeth Police Station	76	78	74	71	66	64	73	62	65	66	62	61
		Ko	lhapur(30 <sup>th</sup>	August 201	4)			Koll	napur (3 <sup>rd</sup> S	eptember 20	014)	
Rajaram Puri	84	82	80	75	65	56	88	86	81	80	84	72
Mahalaxmi Mandir	65	69	72	60	54	50	67	65	70	62	54	48
Khas Baug Maidan	87	90	81	79	69	52	91	90	90	88	83	64
		S	atara (30 <sup>th</sup>	August 2014	1)			Sa	tara (3 <sup>rd</sup> Se	ptember 201	14)	
Powai Naka	77	69	64	62	67	64	73	75	78	79	64	62
Moti Chowk	69	67	67	77	67	68	69	73	72	68	74	55
Rajwada	70	71	66	79	75	72	67	72	74	75	79	65

	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
		Mui	mbai (6 <sup>th</sup> Se	ptember 20	14)	I		Mu	mbai (8 <sup>th</sup> Se	ptember 20	14)	I
Andheri	67	75	74	86	77	69	71	84	86	83	86	84
Bandra	76	74	73	73	76	71	77	75	78	78	63	62
Bhandup	74	76	72	76	72	71	61	65	78	86	62	67
Borivali	74	76	72	76	68	65	73	86	88	94	98	99
Byculla	74	76	75	78	71	73	96	83	72	86	83	79
Chembur (E)	73	72	74	73	69	70	75	74	71	74	78	74
Chembur (W)	80	73	75	81	73	71	72	84	60	72	76	74
Chinchpokali (E)	80	79	81	76	79	82	92	94	92	75	74	75
Chinchpokali (W)	75	73	71	74	69	68	95	97	95	86	74	65
Dadar (E)	79	85	78	77	73	70	86	85	80	74	77	73
Dadar (W)	71	73	68	67	68	73	79	81	79	84	87	86
Elphinstone	72	74	71	69	70	73	74	75	74	77	78	79
Ghatkopar	71	72	76	71	72	81	73	76	74	72	79	90
Girgaon Chowpati	73	72	76	72	70	81	81	86	87	84	84	83
Grant Road	71	71	88	77	70	73	79	80	80	80	81	77
Juhu Chowpati	75	74	86	77	70	77	75	75	78	79	82	83
Kandivali (E)	79	73	84	77	74	74	86	85	86	68	70	70
Kandivali (W)	73	74	89	76	72	78	73	68	70	73	60	69
Khar	71	74	85	74	70	72	85	77	72	65	64	66
Mulund	73	74	77	80	73	76	78	75	70	64	74	78
Mumbai Central	77	73	76	92	71	79	78	75	71	73	75	68
Parel	75	72	78	77	75	73	71	72	75	72	70	71
Santacruz (E)	74	72	79	78	73	74	86	89	80	81	76	76
Vikhroli	74	72	75	78	78	74	78	67	64	79	74	74
Wadala	75	73	74	80	71	73	78	75	70	64	74	78
			Mumbai (6 <sup>th</sup>			T				September		
Airoli	74	74	73	80	80	75	87	86	72	77	76	70
CBD Belapur	76	76	72	73	79	73	76	77	82	66	70	70
Kopar Khairane	72	75	74	75	81	71	64	66	71	72	76	73
Uran	76	78	73	71	76	74	72	69	75	75	81	85
Vashi	68	71	69	73	79	69	89	84	73	74	79	79
			ane (6 <sup>th</sup> Sep			T				tember 201		T
Gokhale Road	77	75	76	77	75	69	62	65	73	72	79	79
Jambli Naka	80	84	83	80	77	77	88	86	75	79	74	77
Naupada	78	79	76	73	72	70	72	68	71	70	70	70
Pokhran Road	73	74	73	78	76	75	86	70	79	71	65	70
Wagle Estate	72	71	65	74	71	80	89	84	72	75	70	69

				T								
	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
Court Naka	65	71	62	75	69	76	81	84	79	72	66	61
Mental Hospital	76	64	66	72	64	70	63	67	59	54	52	45
Bedekar Hospital	74	60	59	60	65	66	78	65	65	50	51	51
Kalwa	74	78	79	75	70	65	85	83	81	75	74	68
			ine (6 <sup>th</sup> Sep			T				tember 2014		T
Shivaji Nagar	79	89	87	86	82	76	88	91	93	90	85	71
Karve Road	67	77	87	87	83	77	76	86	89	95	94	87
SwarGate	87	86	85	83	83	80	86	85	84	83	82	80
Satara Road	70	75	83	84	81	68	77	83	90	89	91	85
Shaniwar Peth	79	81	81	81	79	77	78	84	81	80	83	91
Yerawada	79	81	88	86	78	77	88	89	93	92	88	80
Laxmi Road	103	100	99	86	66	60	113	106	115	110	113	111
Kothrud	64	72	81	85	75	68	83	90	91	94	92	84
Mahatma Phule Madai	100	98	98	80	70	61	113	111	112	119	116	110
Sarus Baug	82	82	77	66	62	58	84	87	85	84	82	71
Hadapsar	83	84	90	89	84	71	93	94	94	92	82	85
parvati	86	85	79	74	66	54	86	90	94	84	74	69
Koregaon Park	86	89	89	81	80	79	79	99	101	100	104	100
Khadaki	82	88	88	89	84	79	93	93	95	93	94	86
M G Road	85	85	85	83	85	80	86	86	84	81	80	79
Chapekar Chowk	80	82	88	87	91	78	90	98	101	96	100	97
Pimpri	78	79	80	77	74	69	87	100	106	105	99	98
Thergaon	79	80	83	84	77	74	83	88	89	90	86	81
Navi Sangavi	76	72	78	77	76	70	84	88	83	85	83	77
Bhosari Gavthan	74	77	82	93	74	67	82	87	93	98	86	69
		Na	shik (6 <sup>th</sup> Se	ptember 20:	14)			Na	shik (8 <sup>th</sup> Se <sub>l</sub>	tember 201	<b>(4)</b>	
Nashik Road/ Ramkund (on - 08.09.2014)	92	89	83	90	83	78	99	97	105	102	100	96
Panchvati/ Near Ashok Stambh (on - 08.09.2014)	87	96	90	104	92	86	74	83	82	97	99	94
CBS / Near Gadge Maharaj Statue (on - 08.09.2014)	93	85	87	89	95	97	100	93	98	99	99	99
CIDCO/ River Bank of Waldevi (on -	85	82	80	77	89	94	86	83	88	83	84	90

				1						1	<u> </u>	
	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
08.09.2014)												
Dahi Pool/ CIDCO												
(Behind PF Off.)	87	85	87	89	78	81	89	88	89	89	89	90
(on - 08.09.2014)												
				September 2						September 2		
Gulmandi	72	79	82	78	73	68	84	97	94	89	80	73
City Chowk	75	76	77	73	70	67	91	97	98	97	92	85
Kranti Chowk	79	81	80	75	74	71	83	88	93	89	85	80
CIDCO Residential	63	70	70	73	67	62	71	76	82	78	70	63
Usmanpura	71	76	79	73	69	65	76	80	85	81	75	72
		Na	gpur (6 <sup>th</sup> Se	ptember 20	14)			Na	gpur (8 <sup>th</sup> Se	ptember 20:	14)	
Ramdaspeth (KRIMS Hospital) /(Sonegaon lake on - 08.09.2014)	60	60	59	59	60	58	60	71	73	71	65	57
Cotton Market (Jayshree Talkies) / (Gandhisagar on - 08.09.2014)	70	71	72	75	72	73	85	85	91	93	93	95
Golibar Chauk / (Futala lake on - 08.09.2014)	69	72	72	71	69	65	79	84	85	84	89	91
Reshimbag (Saraswati Vidyalaya) / (Sakkardara lake on - 08.09.2014)	76	83	81	78	77	74	79	80	83	83	84	81
Gandhiputala (Taori TV Showroom) / (Naik lake on - 08.09.2014)	77	78	74	75	74	69	74	74	73	76	73	74
<del>                                     </del>				ptember 20:						ptember 201		I
Bhiwandi	79	80	82	86	80	74	90	89	89	77	66	57
Shivaji Chawk	70	67	70	66	64	61	92	88	85	60	54	57
Ulhasnagar Station	75	76	74	73	72	74	93	86	88	62	55	54
				eptember 20						eptember 20		
Bhudhwara	62	67	69	72	71	70	69	74	76	75	81	64

	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	18:00 - 19:00	19:00 - 20:00	20:00- 21:00	21:00 - 22:00	22:00 -23:00	23:00 - 00:00
Rajkamal Square	76	79	76	74	73	70	82	79	84	74	71	68
Irvin Hospital Square	67	73	71	75	67	64	67	72	68	67	60	60
		Jal	gaon (6 <sup>th</sup> Se	ptember 20	14)			Jal	gaon(8 <sup>th</sup> Se <sub>l</sub>	tember 201	<b>4</b> )	
Subhash Chowk	86	84	85	79	77	72	90	88	92	89	85	87
Shashtri Tower Chowk	91	93	88	81	78	74	93	98	105	98	92	90
Shanipeth Police Station	73	75	72	73	69	64	72	74	73	71	70	69
		Koll	napur (6 <sup>th</sup> Se	eptember 20	014)			Koll	napur (8 <sup>th</sup> Se	eptember 20	14)	
Rajaram Puri	84	91	90	90	88	83	78	74	80	80	71	69
Mahalaxmi Mandir	70	70	69	64	53	49	78	69	76	78	75	72
Khas Baug Maidan	88	86	91	89	83	79	100	101	102	101	100	101
		Sa	tara (6 <sup>th</sup> Se <sub>l</sub>	ptember 201	L4)			Sa	tara (8 <sup>th</sup> Sep	tember 201	4)	
Powai Naka	73	71	70	65	71	64	81	71	77	80	85	69
Moti Chowk	66	62	72	68	73	61	80	77	76	74	80	71
Rajwada	69	65	67	71	73	71	72	74	75	80	83	77

## **Annexure - V**

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
								Mumbai							
Andheri	68	77	62.0	83.0	77	82.2	87.1	75	77	83	75	71	74	82	67
Bandra	77	63	74.8	74.7	77	85.3	75.5	74	77	78	74	90	79	70	71
Bhandup	65	50	56.6	76.5	75	82.1	74.7	75	82	74	73	76	86	70	56
Borivali	71	60	73.7	71.3	75	78.4	70.9	79	70	69	72	69	71	90	76
Byculla	80	68	68.9	76.9	78	73.3	77.3	76	71	75	74	66	75	83	68
Chembur (E)	70	70	78.9	82.6	76	80.1	82.7	57	79	81	72	71	79	74	74
Chembur (W)	76	69	74.8	70.8	70	79.2	68.9	70	76	70	75	67	75	73	64
Chinchpokali (E)	72	83	72.7	69.5	85	79.2	74.2	72	57	80	80	69	87	84	67
Chinchpokali (W)	78	74	68.1	71.1	77	78.8	76.7	79	77	78	72	80	68	85	74
Dadar (E)	68	67	56.0	81.3	77	72.8	80.2	73	93	82	77	84	82	79	83
Dadar (W)	73	73	55.8	80.3	67	72.7	80.8	72	76	79	70	65	82	83	68
Elphinstone	65	67	61.0	82.3	79	82.1	82.3	62	75	87	72	68	78	76	68
Ghatkopar	68	55	68.7	81.9	79	80.1	85.3	68	79	83	74	66	80	77	69
Girgaon Chowpati	76	72	72.8	91.5	77	83.3	75.0	75	78	72	74	68	76	84	71
Grant Road	75	77	71.2	76.2	73	74.9	74.7	69	85	77	75	67	77	80	65

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Juhu Chowpati	74	63	70.9	85.0	75	68.0	82.1	72	65	86	76	74	87	79	83
Kandivali (E)	65	57	72.4	77.2	79	68.5	72.1	77	74	72	77	73	80	78	75
Kandivali (W)	72	63	69.3	73.7	77	69.1	81.0	70	85	75	77	70	76	69	62
Khar	76	50	71.4	78.9	83	70.2	77.2	73	88	78	74	58	77	71	69
Mulund	75	60	63.9	83.2	84	69.5	82.9	69	61	82	75	67	80	73	80
Mumbai Central	79	68	54.6	92.9	75	67.6	82.7	77	70	84	78	60	83	73	75
Parel	76	70	80.3	69.7	80	64.7	70.0	68	67	69	75	62	68	72	67
Santacruz (E)	75	72	69.4	86.9	79	73.4	84.4	71	78	82	75	55	77	82	68
Vikhroli	74	79	80.7	80.5	77	77.2	79.1	76	70	78	75	83	78	72	79
Wadala	63	69	74.7	76.9	84	80.7	78.1	80	72	77	74	87	72	73	72
							N	avi Mumb	ai						
Airoli	81	72	66.7	75.1	74	63.6	73.2	69	72	76	76	88	76	78	67
CBD Belapur	78	70	72.5	68.5	84	74.1	79.5	72	78	68	75	69	74	73	68
Kopar Khairane	72	67	65.7	73.9	95	75.0	72.6	68	75	74	74	65	72	70	71

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Uran	78	58	58.2	75.7	93	73.9	72.4	76	73	73	75	66	74	76	72
Vashi	69	72	66.0	75.6	86	70.7	71.4	80	63	76	71	71	75	80	72
								Thane							
Gokhale Road	74	79	65.7	74.3	77	70.3	75.6	74	68	74	75	58	68	72	61
Jambli Naka	71	54	72.5	72.4	73	68.7	74.6	75	54	71	80	73	74	80	63
Naupada	76	52	71.8	77.9	75	65.4	74.8	61	85	76	75	81	71	70	66
Pokhran Road	76	52	60.3	79.2	74	74.3	75.5	72	83	77	75	82	75	73	60
Wagle Estate	71	51	60.6	83.0	72	69.5	64.9	71	92	57	72	83	78	76	58
Court Naka	74	60	66.2	69.8	73	70.6	70.9	69	73	69	69	68	65	74	71
Mental Hospital	70	59	51.9	60.2	62	70.9	54.8	68	72	51	68	66	72	57	87
Bedekar Hospital	73	55	54.6	67.0	67	73.7	68.8	74	68	67	64	65	63	60	87
Kalwa	80	51	71.8	69.6	76	74.7	73.4	74	75	68	74	81	71	78	77
								Pune							
Shivaji Nagar	76	62	65.1	82.1	78	70.1	77.4	81	74	82	83	82	81	86	94

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Karve Road	75	56	70.4	80.7	73	80.2	83.5	81	86	81	80	81	84	88	88
SwarGate	80	63	68.4	78.5	82	66.1	77.4	83	79	86	84	82	79	83	88
Satara Road	72	55	76.7	77.1	80	82.1	75.6	78	85	76	77	80	82	86	90
Shaniwar Peth	77	60	75.1	77.9	73	74.6	78.3	79	80	77	80	78	79	83	84
Yerawada	72	60	69.9	82.5	77	69.8	79.5	75	73	79	81	74	78	88	75
Laxmi Road	82	53	92.0	66.9	70	72.7	91.2	86	73	88	86	77	79	111	106
Kothrud	70	53	66.2	84.7	69	66.6	81.2	74	77	84	74	83	80	89	99
Mahatma Phule Madai	76	51	93.6	80.1	71	66.8	82.3	88	70	86	84	76	80	113	101
Sarus Baug	73	54	69.9	74.1	76	76.2	79.6	73	75	78	71	77	77	82	81
Hadapsar	73	55	67.2	84.5	80	67.9	85.1	82	78	85	84	80	85	90	100
parvati	72	52	62.3	81.0	79	67.4	79.4	74	74	79	74	78	80	83	99
Koregaon Park	80	57	78.5	73.4	76	75.4	56.9	80	76	82	84	80	70	97	83
Khadaki	75	54	65.8	83.8	80	68.0	80.9	81	74	82	85	82	79	92	99
M G Road	74	58	58.7	83.1	79	72.1	82.9	82	73	84	84	73	84	83	97

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Chapekar Chowk	81	60	71.5	77.0	78	81.2	77.2	82	80	82	84	80	81	97	94
Pimpri	74	61	72.7	82.4	74	78.3	80.7	74	73	74	76	73	73	99	95
Thergaon	79	60	68.2	78.2	77	82.4	79.3	77	78	83	79	79	82	86	86
Navi Sangavi	72	59	62.4	98.2	76	62.3	76.9	80	66	72	75	105	71	83	77
Bhosari Gavthan	72	57	69.4	82.2	77	77.5	82.9	76	85	73	78	80	74	86	81
								Nashik							
Nashik Road/ Ramkund (on - 08.09.2014)	90	75	88.3	77.7	82	75.8	79.0	83	97	89	86	99	83	100	93
Panchvati/ Near Ashok Stambh (on - 08.09.2014)	86	84	89.6	81.1	90	92.4	80.7	92	95	78	92	95	85	88	89
CBS / Near Gadge Maharaj Statue (on - 08.09.2014)	74	77	89.3	85.8	87	84.2	79.6	86	97	81	91	98	82	98	99
CIDCO/ River Bank of Waldevi (on - 08.09.2014)	72	71	79.0	86.1	78	73.5	78.4	76	85	85	85	90	82	86	84
Dahi Pool/ CIDCO (Behind PF Off.) (on - 08.09.2014)	72	76	88.7	80.2	82	87.3	79.2	80	93	79	84	89	82	89	78
		72 76 88.7 80.2 82 87.3 79.2 80 93 79 84 89 82 89 7 Aurangabad													
Gulmandi	76	62	69.9	73.4	71	71.8	78.1	72	73	80	75	76	82	86	87

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
City Chowk	73	61	68.2	70.0	69	69.5	72.0	69	70	73	73	75	76	93	94
Kranti Chowk	75	64	72.9	72.7	74	71.6	76.7	74	74	78	77	77	82	86	86
CIDCO Residential	65	52	58.6	56.3	60	61.9	63.2	62	62	65	68	67	68	74	70
Usmanpura	69	55	67.7	67.0	68	68.7	72.9	67	67	70	72	71	73	78	79
								Nagpur							
Ramdaspeth (KRIMS Hospital) /(Sonegaon lake on - 08.09.2014)	57	49	61.8	88.0	58	71.3	73.3	58	69	73	59	69	73	66	81
Cotton Market (Jayshree Talkies) / (Gandhisagar on - 08.09.2014)	72	60	65.1	71.8	69	72.0	73.3	72	74	71	72	75	71	90	71
Golibar Chauk / (Futala lake on - 08.09.2014)	71	59	71.3	72.0	68	62.1	74.0	68	73	72	70	67	71	85	94
Reshimbag (Saraswati Vidyalaya) / (Sakkardara lake on - 08.09.2014)	72	55	70.5	74.5	76	72.7	82.1	76	76	76	78	76	75	82	84
Gandhiputala (Taori TV Showroom) / (Naik lake on - 08.09.2014)	82	65	74.3	82.6	72	71.5	71.7	72	75	83	74	75	86	74	79
								Kalyan							

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Bhiwandi	71	65	56.4	78.2	80	70.5	70.6	69	51	79	80	71	75	78	67
Shivaji Chawk	72	66	54.0	74.5	76	77.0	75.3	68	89	76	66	68	76	73	63
Ulhasnagar Station	72	48	75.9	68.8	79	73.4	66.6	71	82	71	74	68	68	73	70
								Amravati							
Bhudhwara	68	50	58.0	69.7	64	68.6	72.7	74	76	72	68	75	77	73	79
Rajkamal Square	79	56	64.2	72.2	76	73.0	74.9	74	73	75	75	73	74	76	72
Irvin Hospital Square	62	47	57.9	62.7	60	72.8	64.6	65	70	64	69	69	64	66	67
								Jalgoan							
Subhash Chowk	77	71	79.2	79.8	75	68.7	77.9	74	73	76	80	80	81	88	87
Shashtri Tower Chowk	75	59	84.5	78.9	77	74.7	79.4	76	76	77	84	84	85	96	96
Shanipeth Police Station	73	59	64.9	70.3	71	65.2	73.2	65	64	78	71	65	72	71	66
								Kolhapur							
Rajaram Puri	80	68	70.5	80.7	73	73.7	81.5	82	76	85	88	86	86	75	75
Mahalaxmi Mandir	69	55	57.0	67.8	62	56.7	57.0	61	57	61	62	62	60	75	80

	29-Aug-14 (Day Time)	29-Aug-14 (Night Time)	9-Sep-13	25-Sep-12	30-Aug-14	10-Sep-13	3-Sep-14	13-Sep-13	27-Sep-12	6-Sep-14	15-Sep-13	28-Sep-12	8-Sep-14	18-Sep-13	29-Sep-12
Khas Baug Maidan	85	69	73.0	79.5	76	81.0	79.7	84	81	84	86	87	86	101	100
		Satara													
Powai Naka	66	60	55.8	82.1	67	68.9	77.9	72	70	83	69	70	80	77	73
Moti Chowk	70	56	58.5	83.3	69	70.9	79.0	68	72	78	67	68	80	76	74
Rajwada	66	48	57.1	83.9	72	70.1	79.7	72	70	82	69	68	86	77	74