

Research Article

Study of Noise Pollution During Ganesh Utsav in Yavatmal City

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ABSTRACT

The present paper deals with monitoring of Noise Pollution at different places of Yavatmal City on the day of Ganesh immersion. During the present study the noise levels were measured with the help of sound level meter. The Noise Pollution is increasing considerably. By using sound level meter noise levels are measured at different locations particularly during Ganesh immersion. It was understood clearly from our study that the noise levels are elevated the main sources of noise pollution are loud speakers D.J., drums. Major effects of noise pollution include interference with communication, sleeplessness, and reduced efficiency. Public education appears to be the best method as suggested by the respondents. However, government and NGOs can play a significant role in this process.

Keywords: Ganesh Utsav, Noise pollution, Yavatmal, Immersion.

INTRODUCTION

Every environmental pollution problem has roots in the past be it water, air or noise pollution and all these problems are becoming critical in the recent years due to rise in the use of modern technologies. Noise is an unwanted sound that may cause some psychological and physical stress to the living as well as non-living objects exposed to it. While celebrating the Ganesh utsav, Durga puja, Dipawali, party, wedding ceremonies or other religious festivals creating a minimum noise level which gives happiness and avoid adverse effects on human health. The increasing musical instruments, drums D.J. crackers are the main source of noise pollution. Ganesh is an important Hindu festival, in which now a days use is increasing day by day. This causes a lot of noise and air pollution. The crackers contain dangerous chemicals. The focus is to reduce noise and sound pollution that is intense during the festival days. In the present paper an attempt has been made to study the sound levels during Ganesh Immersion.

Noise can be defined as an unwanted or undesired sound whereas environmental noise is any unwanted or harmful outdoor sound created by human activities that is detrimental to the quality of life of individuals. The influence of excess noise

on human body can be due to direct effects upon the auditory system, non-auditory physiological processes and on purely psychological mechanisms. Noise effect includes various impacts on mental and physical health and disturbance of daily activities which may affect sleep, conversation, lead to perception of annoyance, cause hearing loss, instigate cardiovascular problems as well as affect human judgment and performance. The permissible limits of noise levels for different urban areas prescribed by the Noise Pollution (Regulation and Control) Rules, 2000 are given in the Table Permissible limits of Noise levels.

Area	Min dB	Max dB
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence	50	40

Experimental design and setup

The level of Noise Pollution is monitored at different places of Yavatmal City on the night of Ganesh immersion during 8.00am to 11.30 pm. For this purpose different locations were selected from where the shobha yatra travels. The noise levels were monitored with the help of sound meter. The standards of noise level were compared with that of the standards

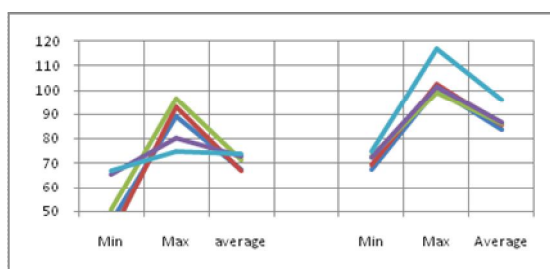
prescribed in Environmental Protection Rules, 1986 and standards of CPCB.

NOISE LEVEL MEASUREMENTS

A sound level meter (SLM) type II . This unit conforms to IEC651 type II this data logger internal memory can keep up to 32000 records. It uses RS 332 interface to perform bio directional communication with

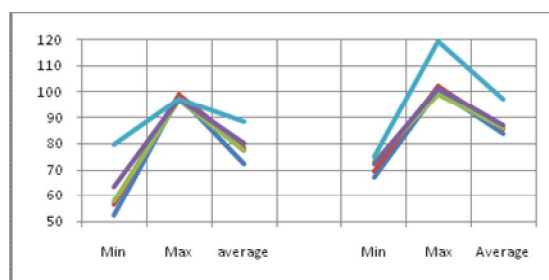
PC was used in present study. the instrument use in the range of 30 – 180 dB(A).the sound level meter was set back at the distance of 100 meters from the place of points in Yavatmal city were observed during 8.00am to 4.00pm and 5.00pm to 11.30 pm. The noise level recorded in such critical hours at each selected places or points the

Sr. No.	Noise intensity dB(A) 8.00 am to 4.00 pm		Average intensity	Noise intensity dB(A) 6.00 to 11.30 p.m.		Average intensity
	Min	Max		Min	Max	
1	45.5	89.1	67.3	67.4	100.5	83.95
2	40.2	93.4	66.8	69.4	102.5	85.95
3	50.5	96.7	71.6	73.1	99.3	86.2
4	65.4	80.1	72.7	72.5	101.5	87
5	66.8	75.1	73.75	75	117	96



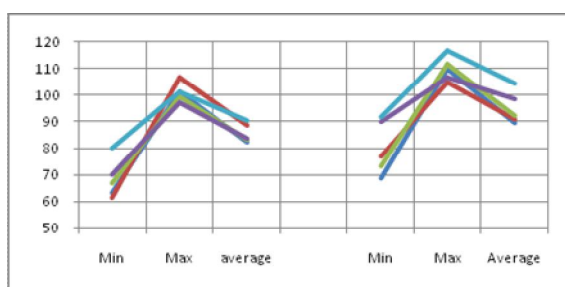
Location 1 (state Bank chowk)

Sr. No.	Noise intensity dB(A) 8.00 am to 4.00 pm		Average intensity	Noise intensity dB(A) 6.00 to 11.30 p.m.		Average intensity
	Min	Max		Min	Max	
1	52.3	98.2	72.2	67.4	100.5	83.95
2	56.7	99.2	78.4	69.4	102.5	85.95
3	58.1	96.7	77.4	73.1	99.3	86.2
4	63.4	97.5	80.45	72.5	101.5	87
5	79.9	97.4	88.65	75	119.5	97.25



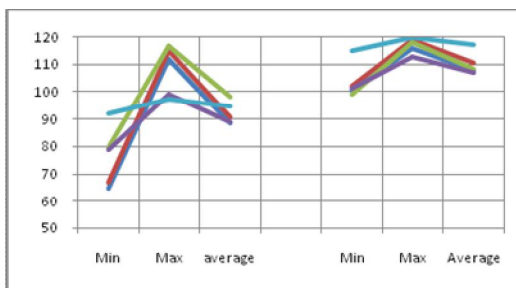
LOCATION 2 (BUS STAND CHOWK)

Sr. No.	Noise intensity dB(A) 8.00 am to 4.00 pm		Average intensity	Noise intensity dB(A) 6.00 to 11.30 p.m.		Average intensity
	Min	Max		Min	Max	
1	63.2	101.4	82.3	69	110	89.5
2	61.7	107	88.5	77	105	91
3	66.8	99.6	83.2	73.1	112	92.5
4	70.1	97.5	83.8	90	107	98.5
5	79.9	101.2	90.55	92	117	104.5



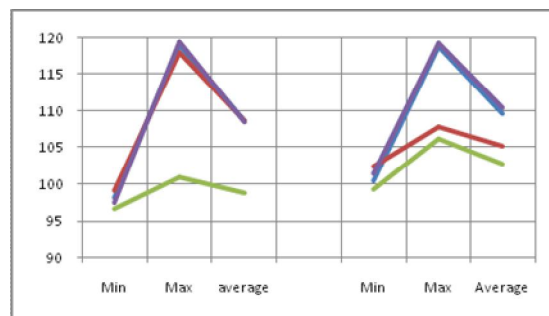
LOCATION 3 (ARNI ROAD)

Sr. No.	Noise intensity dB(A) 8.00 am to 4.00 pm		Average intensity	Noise intensity dB(A) 6.00 to 11.30 p.m.		Average intensity
	Min	Max		Min	Max	
1	65	112	88.5	100.5	116	108.2
2	67	115	91	102.5	119	110.7
3	80	117	98.5	99.3	118	108.6
4	79	99	89	101.5	113	107.2
5	92	97.4	94.7	115	120	117.5



LOCATION 4 (DATTA CHOWK)

Sr. No.	Noise intensity dB(A) 8.00 am to 4.00 pm		Average intensity	Noise intensity dB(A) 6.00 to 11.30 p.m.		Average intensity
	Min	Max		Min	Max	
1	98.2	119	108.6	100.5	118.9	109.7
2	99.2	118	108.6	102.5	107.9	105.2
3	96.7	101	98.85	99.3	106.2	102.7
4	97.5	119.5	108.5	101.5	119.4	110.4
5	97.4	117.9	107.6	103.3	118.3	119.3



LOCATION 5 (MAIN LINE)

RESULTS AND DISCUSSION

It was observed that the level of Noise Pollution during Ganesh immersion is much higher when compared with the standard limits. The sound levels recorded at different locations in Yavatmal City which are shown in the location 1 to 5, The results were surprising in some locations particularly in location 5 from which all the Ganesh yatra travels at a time where max drums, D.J., loud speakers and crackers are burned. In location 5 maximum sound level of 119.4 decibel is observed. In general at all the locations the sound level is observed to be much greater than the permissible limit through out the day.

CONCLUSION

Noise pollution is emerging as an environmental problem in Yavatmal and also other parts of India. This can cause negative impact on public health and welfare. Considering the above aspects, we can conclude that noise dominates the spectrum of environmental noise. The people staying in noisy area especially above 70 dB(A) should take precautionary

measures in order to avoid noise induced hearing loss.

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