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NOISE POLLUTION IN MUMBAI



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ABSTRACT

According to the World Health Organization (WHO), noise is a second only to air pollution in the impact it has on health. Mumbai is the nosiest city in the world. Traffic is a continuous source of noise. 21 Century has three grave problems, namely growth of population, conicperversity and pollution. If we have to survive, pollution is the most dangerous problems like a cancer in which death is sure but slow.

Maharashtra pollution Control Board (MPCB) has given zone wise noise level limits. Now a day in Mumbai crossed the standard noise limit. In normal days Mumbai crossed the dB limit by 25 to 30 dB. Diwali Festival and Ganesh Festival, noise level recorded 223dB in 2015. It is a time to control it.

KEYWORDS:- Noise Pollution, World Health Organization, Maharashtra pollution Control Board

INTRODUCTION:

The world noise is derived from the Latin term nausea. According to "Enger and Smith" Pollution is something that people produce in quantities large enough to interfere on with our health and well-being. The main source of pollution is growing population. Unplanned human activities have resulted in high level of pollution.



The present generation and the coming generations have to solve three grave problems, namely population, poverty and pollution. If they have to survive, noise pollution being the most dangerous problems like cancer in which death is sure but slow. Noise is the gift of modern living, industrialization and urbanization. Unless timely action is not taken, we have a forbid and break future for the world.

Sound became unwanted when it either interferes with normal activities such as sleeping, conversation or disrupt or diminishes one's quality of life, Noise pollution or noise disturbance is the disturbing or excessive noise that may harm the activity or balance of human or animal life.

Not all sound can be called noise pollution. As per noise pollution (Regulation and Control)

Rules, 2000, zone wise standard of noise level limits are given in Table: 1

Table 1 - Zone wise Standard of Noise Limits (in decibels)

Area Code	Category of Zone	L im it		
		Day time	Night Time	
A	Industrial	75	70	
В	Commercial	65	55	
С	Residential	55	45	
D	Silence Zone	50	40	

Source-Maharashtra Pollution control Board (MPCB).

Mumbai is the nosiest city it the world and a traffic is a continuous source of noise. Source of noise pollution in Mumbai as follows

- 1) Road traffic noise
- 2) Festival Noise
- 3) Neighborhood noise
- 4) Aircraft noise
- 5) Industry Noise

Among these road traffic noise pollution and noise of industry including market noise are important in Mumbai. In order to assess the impact of noise pollution conducted by M.P.C.B. is given below Table: 2

Table 2 – Dad-Night noise levels in residential areas in major city 2012-14

Location	Nonworking day					
	16-12-2012		22-12-2013		14-12-14	
	Day	Night	Day	Night	Day	Night
Mumbai (An top Hill)	72.5	61.1	67.1	63.4	70.0	61.0
Mumbai (Shivajinagar Park)	73.5	57.1	67.9	57.6	69.0	66.0
	Working day					
	16-12-2012		22-12-2013		14-12-14	
	Day	Night	Day	Night	Day	Night
Mumbai (An top Hill)	73.3	59.0	63.6	60.1	67.0	66.0
Mumbai (Shivajinagar Park)	68.4	53.2	68.3	57.0	65.0	48.0

Source: Economic Survey of Maharashtra

Table 2 – shows working days noise in more than non-working day noise. Standard noise level for residential zone is $55\,\mathrm{dB}$ for day and $45\,\mathrm{dB}$ for night. There is always fluctuation in noise dB. Trend of noise level is not going smoothly up or down. Noise levels are always high than standard level by $55\,\mathrm{dB}$ day time and $45\,\mathrm{dB}$ night time.

Fire-crackers, initially used mainly during the Diwali Festivals are now used to celebrate almost

at any occasion including weddings, cricket matchesand festivalsevery community. Awaz Foundation tested the noise level of firecrackers along with the Maharashtra Pollution Board (MPB) in 2008, 2012, 2013 and 2015. The noise level of almost all crackers exceeded 100 dB. Diwali in 2015, the M.P.C.B. recorded noise pollution 45 locations in all days during the festival season. The peak noise recorded across the city is given below.

Table: 3 AmbianceAir quality during Diwali 2015 (Bandara)

	•	•	
Date	Nox*	PO 10	PM 2.5
Date	$80 \text{ug}/\text{m}^3$	100 ug/ m 3	600ug/m ³
Nov.9	164	82	62
Nov.10	151	108	84
Nov.11	123	186	116
Nov.12	111	162	78
Nov.13	109	178	85

Source: Times of India, Mumbai, 17-12-2015

In Diwali season average dB in other places as such Kamathipura 96.3 dB.Bhaykhela(W) 96.3.dB. Tromboy 100.6 dB, Ghatkopar 920 dB, Mantralaya at Night 94.4 dB.

The readings found that noise levels in the city were higher during the day as compared to night. However noise levels in the day have not shown decline at most of the location monitored in Mumbai. This is due to an increase in background decibel levels which are caused due to heavy vehicular traffic. The data shows that the level of particular material in the year shot up during Diwali days PM 2.5 (Particulate material which measures lesser than 2.5 microns) at 166 mg/m3 (microgram me per cubic meter) was double the permissible limit of 60 mg/m3. The nitrogen level oxide levels in the year had doubled as compared to 2014. There are few crackers, in the market which cause lower air pollution but these are expensive and people do not know about it.

Another source of noise pollution is loudspeakers, banjo, drums, firecrackers etc. Noise level during (2015) Ganpati immersion processions reached record high of 123.7 dB this year. The higher noise level previously recorded was 123.3 dB in 2013. The following table shows the dB level of noise Table 3 - Noise levels during Ganpati Immersion Processions

Time	Place	dB Level	Comment
7.44 p.m.	Ambedkar Rd. Bandra W	108	Loudspeaker
7.49 p.m.	Linking Road, Santakruz	106	Loudspeaker, drum
8.11 p.m.	Juhu Tara Road	106	Loudspeaker
9.29 p.m.	Near Bandar Station	107	Drums
9.54 p.m.	Dadar	106.8	Loudspeaker, Drums, Crackers
11.05 p.m.	Opera House	123.7	DJ Music
11.43 p.m.	Opera House	119	Loudspeaker, Drums
12 a.m.	Opera House	116	DJ Music, Drums

Source: Timer of India, Mumbai 29.9.2015

Blatant use of Loudspeaker, D.J. Music, drums and fire crackers kept the noise level as high as 116 dB at Opera House even at midnight. The use of firecrackers was also higher than the previous

^{*} Nox mono nitrogen oxides Noand No2(Nitric acid and Nitrogen oxides)

years, adding to the noise and air pollution.

Harmful Effect of Noise pollution

- 1) Lack of concentration and defects in nerve system.
- 2) Abortion is caused.
- 3) Blood pressure and tension.
- 4) Temporary or permanent deafness.
- 5) Poor quality of crops.
- 6) Dangers to buildings, bridge, monument.

Measures to Control Noise Pollution

- 1) Control at Receivers End for people working in noisy place, ear protection aids like noise helmets, headphone should use
- 2) Suppression of Noise at Source Proper lubrication and better maintenance of Machine.
- 3) AcousticZoning There should be silence zones near the residential areas, educational institutions and near hospitals.
- 4) Sound solution of construction stage.
- 5) Planning of Tree: Planting green trees or shrubs along the roads, hospitals, educational institutions etc. it help in noise reduction to a considerable extent.
- 6) Legislative measures: Strict legislative measures need to be enforcing to curb the menace of noise pollution.

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