

NOISE POLLUTION AND CIVIL LAWS

To ensure a quality life all activities, which hamper or mutilate the environment should be curtailed and all such acts should be carefully regulated for rendering a balanced uninterrupted supportive ecosystem. All pollutants, which degrade the quality of environment, should be taken care of. Here we are concerned primarily with noise pollution. With the technological advancement and industries, the noise level has gone alarmingly high in urban areas specifically in metros. Sound is the form of energy giving the sensation of hearing by stimulating the auditory system and is produced by longitudinal mechanical waves in matter including solid, liquid, gas and transmitted by oscillation of atoms and molecules of matter. When sounds are unwanted, non-acceptable and undesired, it is usually termed noise.^{1,2} A soft rhythmic sound of music, or even the voice of a loving or caring person stimulates brain activity, removes boredom and fatigue. In the modern era, the young generation uses it as a tool for better cozy environment during studies even with the western music and shows creditable results in examinations. Legally all pollutants, which become a nuisance affect the health of a person or his activities and mental abilities should be checked. The sweetest music in odd hours of night disturbing a person's sleep is a noise and should be checked.

Romans perhaps enacted the first prohibitory noise law when, by a popular decree, chariots were banned from the streets at night.³ Noise may be industrial or non-industrial like

factory or mill, automobiles and its horns, train engines, aeroplanes, radios, loudspeakers, lottery ticket sellers, hawkers and pop-singers etc. are the main offenders.

Loud noise produces two types of hearing loss-
1-Sudden sound of high intensity due to explosion or blast of fire cracker produces permanent sensorineural type of deafness.

2 - Prolonged exposure due to employment or environment by virtue of industries, jet engine, loudspeaker, pop-music or gunfire, leads to high frequency hearing loss.⁴

Usually the industrial noises are of low frequency which travels approximately nine times faster through the bones due to larger wave length. An increase in the mass of vibrating system affects high frequency transmission and an increase in stiffness affects low frequencies. Hearing or noise level that is sound level is measured in decibels (dB), sound emitted by various gadgets and of environment is depicted in table I.⁴

In a healthy young adult for 1000 Hz. the threshold of hearing is at a sound pressure of 0.0002 dyn/cm². the decibels (1/10 of Bel) is a comparison of two sounds viz $N = 10 \log j./j_0$ when N indicates number of decibels, the power of sound.

Noise level above 50 dB may interfere with sleep leading to psychosomatic changes, intolerable agony may develop when the source of sound cannot be localised or cannot be rectified, leading to error of judgement and lower output and efficiency. Noise can cause tension

and spasm of muscles leading to migraine or headache, even speech defects.

Birds have been observed to have stopped laying eggs and migratory birds change their places. Ecologists count the number of birds and compare it with previous years to conclude the affect of pollution.

LOUDNESS LEVEL OF COMMON ENVIRONMENTAL SOUNDS.⁴

EVERYDAY NOISE	DECIBELS
Medium jet engine (close)	160
Air raid siren	140
Level at which noise becomes painful	130
Jackhammer	124
Loud automobile horn	115
Loud thunder	110
Jet airliners	104
Garbage truck	100
Heavy city traffic; subway, elevator, and railroad trains	90
Inside motor bus	85
Busy office	80
Average street traffic at corner	75
Vacuum cleaner	70
Normal Speech	60
Quiet residential neighborhood	55
Average home	50
Suburban living room	45
Public library	35
Bedroom at night	25
Whisper	20
Broadcasting studio	15
Threshold of hearing	0.1

Table-1

Acoustic trauma can lead to abortion and other congenital defects including the lowering of the intelligence level (I.Q.). The hearing protection regulations of Sweden (AFS 1986:15) established for adults, permit exposure to sound levels of 85 dB for a maximum of 8 hours per day. Exposure to sound levels in 3 dB or

above that level are tolerated for half as long such, that 88 is dB is permitted for 4 hours, 91 dB for 2 hours, etc. The regulation also requires that persons not be exposed to sound levels greater than 115 dB or to peak levels of 140 dB.⁵

LEGAL ASPECT

S.O. 123(E).- Whereas the increasing ambient noise levels in public places from various sources, inter-alia, industrial activity, construction activity, generator sets, loud speakers, public address systems, music systems, vehicular horns and other mechanical devices have deleterious effects on human health and the psychological well being of the people, it is considered necessary to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise. In exercise of the powers conferred by clause (ii) of sub-section (2) of section 3, sub-section (1) and clause (b) of sub-section (2) of section 6 and section 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following rules for the regulation and control of noise producing and generating sources, namely:

The Noise Pollution (Regulation and Control) Rules, 2000

Ambient air quality standards in respect of noise for different areas/zones.

(1) The ambient air quality standards in respect of noise for different areas/zones shall be such as specified in the Schedule annexed to these

SCHEDULE

(see rule 3(I) and 4 (I) Ambient Air Quality Standards in respect of Noise

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

(2) The State Government may categorize the areas into industrial, commercial, residential or silence areas/zones for the purpose of implementation of noise standards for different areas. Silence zone is defined as an area comprising not less than 100 metres around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.

(3) The State Government shall take measures for abatement of noise including noise emanating from vehicular movements and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules.

(4) All development authorities, local bodies and other concerned authorities while planning developmental activity or carrying out functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter of quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise.

(5) An area comprising not less than 100 metres around hospitals, educational institutions and courts may be declared as silence area/zone for the purpose of these rules.

Responsibility as to enforcement of noise pollution control measures.

(1) The noise levels in any area/zone shall not exceed the ambient air quality standards in respect of noise as specified in the Schedule.

(2) The authority shall be responsible for the enforcement of noise pollution control measures and the due compliance of the ambient air quality standards in respect of noise.

Restrictions on the use of loud speakers/public address system.

(1) A loud speaker or a public address system shall not be used except after obtaining written permission from the authority.

(2) A loud speaker or a public address system shall not be used at night (between 10.00 p.m. to 6.00 a.m.) except in closed premises for communication within, e.g. auditoria, confer-

ence rooms, community halls and banquet halls.

Consequences of any violation in silence zone/area.

Whoever, in any place covered under the silence zone/area commits any of the following offence, he shall be liable for penalty under the provisions of the Act:

(i) whoever, plays any music or uses any sound amplifiers,

(ii) whoever, beats a drum or tom-tom or blows a horn either musical or pressure, or trumpet or beats or sounds any instrument, or

(iii) whoever, exhibits any mimetic, musical or other performances of a nature to attract crowds.

Complaints to be made to the authority.

(1) A person may, if the noise level exceeds the ambient noise standards by 10 dB(A) or more given in the corresponding columns against any area/zone, make a complaint to the authority.

(2) The authority shall act on the complaint and take action against the violator in accordance with the provisions of these rules and any other law in force.

Power to prohibit etc. continuance of music sound or noise.

(1) If the authority is satisfied from the report of an officer incharge of a police station or other information received by him that it is necessary to do so in order to prevent annoyance, disturbance, discomfort or injury or risk of annoyance, disturbance, discomfort or injury to the public or to any person who dwell or occupy property on the vicinity, he may, by a written order issue such directions as he may consider necessary to any person for preventing, prohibiting, controlling or regulating:

(a) the incidence or continuance in or upon any premises of -

(i) any vocal or instrumental music,

(ii) sounds caused by playing, beating, clashing, blowing or use in any manner whatsoever of any instrument including loudspeakers, public address systems, appliance or apparatus or

contrivance which is capable of producing or reproducing sound, or

(b) the carrying on in or upon, any premises of any trade, avocation or operation or process resulting in or attended with noise.

(2) The authority empowered under sub-rule (1) may, either on its own motion, or on the application of any person aggrieved by an order made under sub-rule (1), either rescind, modify or alter any such order:

Provided that before any such application is disposed of, the said authority shall afford to the applicant an opportunity of appearing before it either in person or by a person representing him and showing cause against the order and shall, if it rejects any such application either wholly or in part, record its reasons for such rejection.

CONCLUSION

Noise is a potential hazard to the society all the more to the growing children. A national policy should be drafted and implemented with the help of NGO's and wider coverage via print as well as visual media. Preservation of environment and protection from noise pollution should be a part of teaching in social studies in schools. All licenses granted to industries are on the undertaking that they will preserve the

environment and periodically check their staff in terms of hearing. Directive in this matter should be issued to social welfare, labour, industries and health ministeries.

DR. M.K. TANEJA
Editor

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4. Robert A. Jahrsdoerfer- Surgical Correction of Congenital Malformations of the sound-Conducting Mechanism, *Surgery of the Ear*,1990, Chap-14, 321-333
5. Per Anders Hellstrom, Harold A. Denglerink, Alf Axelsson-Noise Levels from Toys and Recreational Articles for Children and Teenagers, *British Journal of Audiology*:1992,26: 267-270.
6. The Bihar Act is entitled, The Bihar Control of the Use of Play of Loudspeakers Act, 1995.
7. Sections 268,299. Also see *Kirori Mal v. the State of Punjab*, 1958. Cr. L.J.91.