

Noise Pollution

Noise word derived from Latin word nausea meaning a feeling of sickness at the Stomach with an urge to vomit. The permitted noise level is 125db as per the environmental (Pollution) rule 1990.

Hell created by Bet (undesirable sound) is referred to as noise pollution.

Causes of Noise Pollution

1. **Natural Causes-** Storms volcanic, eruption & high tides etc
2. **Anthropogenic Causes-** Are following

1. Industrial operation
2. Transport vehicles
3. Household
4. Celebrations
5. Agriculture machines
6. Construction equipment
7. Define equipment, explosions
8. Hydro power plants
9. Miscellaneous Sources

- 1. Industrial operation** like textile mills, printing press, metal work and engineering establishment.
- 2. Transport vehicles** air, road, water etc.
- 3. Household** – electric home appliances.
- 4. Celebrations** – Social / religions functions, election, demonstration and commercial advertisement.

- 1. Agriculture machines** – Tractors, tube well, thrashers, harvesters.
- 2. Construction equipment** - During operation
- 3. Defense equipment, explosions-** During training and war
- 4. Miscellaneous Sources** – Iron work shop, construction works, stone crushing, blasting etc.
- 5. Hydro power plants-** During movement of water

Effects of Noise Pollution

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graph TD; A([Effects of Noise Pollution]) --> B([Auditory Effects]); A --> C([Non Auditory Effects]); B --> D[Auditory Fatigue]; B --> E[Deafness]; C --> F[Increase Heart Beat & Blood Pressure]; C --> G[Loss of Working Efficiency]; C --> H[Interference in Speech Communication];
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Auditory Effects

Auditory Fatigue

Deafness

Non Auditory Effects

Increase Heart Beat
&
Blood Pressure

Loss of Working Efficiency

Interference in Speech Communication

Effects of noise pollution :-

Auditory effects- Noise pollution affects human life and health tempo, high intensity sound for a short duration causes temporary deafness. Continuous noise exposure 100 dB can cause permanent loss of hearing or permanent deafness.

(2)Non-auditory effects- Over exposure of noise may cause.

- **Noise effects are anxiety.**
- **Change in blood pressure.**
- **Dilation of pupil of eye.**
- **It may cause Damage to heart, brain, kidney, liver and emotional disturbances.**
- **Loud sound exposure can cause increases of hormone of pituitary gland.**
- **Three hormones trigger various effects, increase blood sugar, suppression of immune system, decreasing the efficiency of liver to detoxify blood..**

- **Ultrasonic sound can affect the digestive, respiration, cardiovascular and semicircular canals of the internal ear.**

- **Brain is also adversely affected by loud and sudden noise of Jet engine and airplane noise. This noise affected for pregnant women and foetus (Abortion and pre foetus delivery)**

- **It has been reported that blood is also thickened by excessive noises.**

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(3)Economical effects

Nonliving things such as building undergo physical damage by cracks, broken windows, door and glasses etc. by sudden exposure sound

Control of Noise Pollution;

Controls Measures of Noise Pollution

Noise pollution can be controlled by following:-

- **Modifying some of present practices:-** in this procedure in order to minimize the noise for example reducing automobile traffic, sirens, stereos headsets etc.
- **By using sound absorbing medium:-** Develop the uses of sound absorbing medium sound absorbing motor mounting, better design and vibrating absorbing medium in automobile.
- **By using sound shield of noise receivers:** - Shield the noise receiver using earplug, helmets, during noised pollution effect can be reduced.

- **Maintenance of machinery:** - Proper oiling will reduce the noise of machinery. Tightening of loose nut and screws in machineries.
- **Plantation of industrial area:** A green belt effectively reduces the noise. A 20 feet plantation inside compound protects the noise from the noise of vehicular traffic.
- **The technology which can reduce the Noise:-**
Developed the sound reducing sources in automobiles.
- **Uses of Canopies:** Noise generating machineries should be kept in containers with sound absorbing media.