NOISE POLLUTION

Noise pollution, also known as environmental noise or sound pollution, is the propagation of noise with ranging impacts on the activity of human or animal life, most of them harmful to a degree. The source of outdoor noise worldwide is mainly caused by machines, transport, and propagation systems. Poor urban planning may give rise to noise disintegration or pollution, side-by-side industrial and residential buildings can result in noise pollution in the residential areas. Some of the main sources of noise in residential areas include loud music, transportation (traffic, rail, airplanes, etc.), lawn care maintenance, construction, electrical generators, explosions, and people.

Documented problems associated with noise in urban environments go back as far as ancient Rome. Today, the average noise level of 98 decibels (dB) exceeds the WHO value of 50 dB allowed for residential areas.Research suggests that noise pollution is the highest in low-income and racial minority neighborhoods and noise pollution associated with household electricity generators is an emerging environmental degradation in many developing nations.

High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease.In animals, noise can increase the risk of death by altering predator or prey detection and avoidance, interfere with reproduction and navigation, and contribute to permanent hearing lossA substantial amount of the noise that humans produce occurs in the ocean. Up until recently, most research on noise impacts has been focused on marine mammals, and to a lesser degree, fish.In the past few years, scientists have shifted to conducting studies on invertebrates and their responses to anthropogenic sounds in the marine environment. This research is essential, especially considering that invertebrates make up 75% of marine species, and thus compose a large percentage of ocean food webs.Of the studies that have been conducted, a sizable variety in families of invertebrates have been represented in the research. A variation in the complexity of their sensory systems exists, which allows scientists to study a range of characteristics and develop a better understanding of anthropogenic noise impacts on living organisms.

While the elderly may have cardiac problems due to noise, according to the World Health Organization, children are especially vulnerable to noise, and the effects that noise has on children may be permanent.Noise poses a serious threat to a child's physical and psychological health, and may negatively interfere with a child's learning and behavior.

Noise pollution affects both health and behavior. Unwanted sound (noise) can damage physiological health. Noise pollution is associated with several health conditions, including cardiovascular disorders, hypertension, high stress levels, tinnitus, hearing loss, sleep disturbances, and other harmful and disturbing effects.According to a 2019 review of the existing literature, noise pollution was associated with faster cognitive decline.

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Terrestrial anthropogenic noise affects the acoustic communications in grasshoppers while producing sound to attract a mate. The fitness and reproductive success of a grasshopper is dependent on its ability to attract a mating partner. Male Corthippus biguttulus grasshoppers attract females by using stridulation to produce courtship songs.[45] The females produce acoustic signals that are shorter and primarily low frequency and amplitude, in response to the male’s song. Research has found that this species of grasshopper changes its mating call in response to loud traffic noise. Lampe and Schmoll (2012) found that male grasshoppers from quiet habitats have a local frequency maximum of about 7319 Hz. In contrast, male grasshoppers exposed to loud traffic noise can create signals with a higher local frequency maximum of 7622 Hz. The higher frequencies are produced by the grasshoppers to prevent background noise from drowning out their signals. This information reveals that anthropogenic noise disturbs the acoustic signals produced by insects for communication.Similar processes of behavior perturbation, behavioral plasticity, and population level-shifts in response to noise likely occur in sound-producing marine invertebrates, but more experimental research is needed.

How to Reduce Noise Pollution?

We can reduce noise Pollution by following below mentioned Tips:

Turn off Appliances at Home and offices

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We can turn off home and office appliances when not in use such as TV, games, computers etc. it can create unnecessary stress on ears. We can save electricity also when we turn them off.

Shut the Door when using noisy Machines

We can shut the door after we turn on dishwashers or washing machines for rooms where it is kept or we can turn them on before leaving the house so that overlapping of exposure to loud noises can be reduced

Use Earplugs

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Use of earplugs or earmuffs can bring down loud noises to a manageable level. Earplugs are small inserts that fit into our ear canal. And earmuffs fit over the entire outer ear to form an air seal keeping ears safe from loud noises.

Lower the volume

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We can listen to songs, radios, TVs in lower volume when listening from headphones or speakers.

Stay away from Noisy area

Noise producing industries, airports, vehicles should be far from residential areas as it is very dangerous for infants and senior citizens.

Follow the Limits of Noise level

Community law should check the use of loudspeakers, outdoor parties as well as political public announcements.

Control Noise level near sensitive areas

There should be control on noise level (Silent zones) near schools, hospitals. Place noise limits boards near sensitive areas.

Go Green by planning trees

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We can plant more trees as they are good noise absorbents. According to studies, it can reduce noise by 5 to 10 decibels Db around them.

Create Healthy noise to eliminate unwanted noise

If we can’t eliminate unwanted noise coming from outside then we can create healthier noise such as music, singing birds or waterfalls in homes or offices.

Use Noise absorbents in noisy machineries

We can check for pieces of machinery which are creating noise due to vibrations and put some noise absorbents to reduce noise.

Use Proper Lubrication and Better maintenance

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We can use proper lubrication as well as better maintenance of machines to reduce noise pollution and improve efficiency. It reduces friction between movable parts and helps to reduce noise.

Notify Authorities about Disobedience of Noise Rules

We can notify government agencies if someone is not following rules and regulation regarding noise levels.

Regularly check noise levels

Regularly checking noise level in an industrial complex and indoor to keep noise level within the limit.

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It is necessary to control the noises created around us. It is necessary to aware people around us through various mediums. We can start from ourselves to spread awareness about noise pollution and its effects on human and the environment. Limit for noise at daytime is 55 dB and in the night it is 30 dB to avoid health effects.

Learn more about noise level Monitoring

Governments are taking steps to reduce noise pollution in mostly all countries which is a very good sign.

We can follow below mentioned tips for how to reduce noise pollution.

Also you would be interested in Ways to reduce air pollution from factories.

What are effects of Noise Pollution?Constant exposure to loud noises can damage eardrums and loss of hearing. It also reduces the sensitivity of eardrums to pick up small sounds.Noise pollution can affect health and shows signs of aggressive behaviour, sleeps disturbance, increases in stress level, fatigueIt can create hamper sleeping pattern (it is recommended to take sound sleep and not noise sleep :p)

Sound Pollution can increase blood pressure, heartbeat, headache Loud noise affects not only on humans but also on pets. They can behave more aggressively if exposed to loud noises for a longer duration.Interference or disturbance in conversions can result in misunderstanding