

## **GROUP DISCUSSION ON NOISE POLLUTION REPORT(23-12-2022)**

Eco-club of Institute of vocational studies conducted a group discussion on noise pollution on 23<sup>rd</sup> December 2022. In this session we covered all the points, which are responsible for noise pollution. Delhi has become noisier with car honking, loudspeakers, traffic, etc. leading to noise pollution. Construction of roads, buildings, apartments and other areas are also resulting in increased noise pollution. Noise pollution is one of the types of pollution we face daily. Like air pollution, water pollution, soil pollution and other types, noise pollution has a major impact on our health. Atmospheric pollution is not the only pollution we go through, but noise pollution can bring destruction to our lives. According to the World Health Organization, noise pollution is a dangerous health issue. The European Environment (EEA) says noise pollution is responsible for 16,600 premature deaths in Europe alone. A person continuously facing noise pollution can start meeting health issues and can be dangerous in the long term. Several unpleasant noise distractions can bring problems later in life.

### **DISCUSSION POINTS:**

#### **NOISE POLLUTION**

#### **IMPACT ON HUMAN BEING**

#### **CAUSES**

#### **MEASURES FOR NOISE POLLUTION**

#### **What is Noise Pollution?**

According to the WHO, noise pollution is a noise above 65 db, which can severely affect both humans and animals. A noise beyond 75 dB can be painful and will affect the person severely.

It is impossible to see the danger posed by noise pollution. On land and under the sea, you can't see it, but it still exists. Humans and other organisms can be affected adversely by noise pollution if it is an unwanted or disturbing sound.

A decibel is the measurement of sound. Rustling leaves (20-30 decibels) or thunderclaps (120 decibels) to the wail of sirens (120-140 decibels) are all sounds that occur naturally in the natural environment. If a person hears sounds whose decibel level reaches 85 decibels or higher, their ears can be damaged. The sounds of lawnmowers (90 decibels), trains (90 to 115 decibels), and rock concerts (110 to 120 decibels) are just a few familiar sources that exceed this threshold.

#### **IMPACT OF NOISE POLLUTION**

The presence of noise pollution has a daily impact on millions of people. Hearing loss caused by noise is the most common health problem caused by noise exposure. Furthermore, loud noise can also lead to health problems such as hypertension, heart disease, sleep disturbances, and stress. All age groups are susceptible to these health problems, especially children. It has been shown that children living near loud airports and busy streets suffer from stress and other problems, such as memory problems, attention difficulties, and difficulties with reading.

Animals are also adversely affected by noise pollution. Caterpillars' hearts beat faster when loud sounds are made, and bluebirds have fewer chicks when loud noises are made. There are many reasons animals utilize sound, including to navigate, locate food, attract mates, and avoid predators. The noise pollution they encounter affects their ability to accomplish these tasks, affecting their survival.

Noisy environments are not only harming animals on land, but it is also getting worse for animals in the ocean. A once tranquil marine environment has become loud and chaotic because of ships, drilling devices, sonar, and seismic surveys. The negative effects of noise pollution are felt particularly by whales and dolphins. For marine mammals, echolocation is essential for communication, navigation, feeding and mate-finding. Excessive noise can interfere with echolocation.

It is the naval sonar devices that produce the loudest underwater noise. The use of sonar works similarly to echolocation in that sound waves are sent down into the ocean and bounce off objects, returning echoes to the ship that can pinpoint the object's location. Whales' ability to use echolocation is interfered with when they hear sonar sounds, which can reach 235 decibels and travel hundreds of miles under the surface. Research has shown that sonar can make whales strand on beaches and alter the feeding behavior of blue whales (*Balaenoptera musculus*), which are endangered. Groups representing the environment have called on the U.S. Department of Defense to discontinue or reduce sonar-based military training.

Furthermore, hydrographic surveys can cause loud explosions from inside the ocean. Deep in the water, oil and gas are found using air guns that send sound pulses onto the ocean floor. There is potential for marine animals to be harmed by the sound blasts and to suffer serious damage to their ears. Additionally, the whales may also change their behavior as a result of this noise.

In Spain, bioacoustics researcher Michel Andre is studying the effects of noise pollution with the help of hydrophones. He has gathered data from 22 different locations during his project, LIDO (Listening to the Deep Ocean Environment). Using computers, the lab identifies 26 different species of whales and dolphins, including sounds produced by humans. In the analysis, underwater noise will be investigated for its effect on these animals.

### **What causes Noise Pollution?**

Although the world is turning into the use of technology, at the same time, this technology is also harmful. Industries using compressors, exhaust fans, and generators are producing a lot of noise.

Similarly, bikes and cars with old silencers produce heavy noise that can lead to pollution. Planes, heavy trucks and buses are also part of this noise pollution. Low flying aircraft, especially military ones, causes noise pollution. Similarly, submarines can cause ocean sound pollution.

### **How Noise Pollution affects a Person?**

Noise pollution can primarily start affecting the hearing ability of the person, causing permanent hearing impairment. Furthermore, it can cause an increase in blood pressure, hypertension, and other stress-related health issues. In many cases, noise pollution can cause a disturbance in a person's state of mind, which further causes disturbance in sleep patterns, stress, aggressiveness, and other issues. The psychological health of the person can also get disturbed due to regular exposure to noise pollution. Noise above 45 dB can disrupt the pattern of your sleep. According to the WHO, the noise level should not be more than 30db. Change in the sleep pattern can also bring change in your behavior.

If you have pets in your home or around your area, then noise pollution can bring a negative impact on the environment. Firecrackers can bring fear in them if they are regularly exposed to them. This will also bring change in their behavior.

### **Effect on Wildlife and Marine Life**

Animals and marine life are vulnerable to noise pollution. It can affect their listening skills, which further affects their behavior pattern. These animals find it hard to listen during migration, which can negatively

affect their lives. When it comes to marine life, noise pollution can lead to internal damage like physical problems in them.

### **Measures for Noise Pollution**

There are many measures taken by the government and people to reduce the effect of noise pollution. Soundproof walls and windows are now being installed in many houses. Many flyovers in cities have soundproof walls to bring down the noise level to a nearby resident from vehicles running. As responsible citizens, we must contribute towards bringing down noise pollution. Needless honking should be stopped and officials should fine people doing it heavily. Hospitals and schools are built-in silent zones.

There should be rules to avoid noise in residential and sensitive areas. People need to be aware of health hazards from noise pollution.

One of the best ways to bring down noise pollution is by planting more and more plants. This process of planting trees can help to reduce the traveling of noise from one place to another.

### **Conclusion**

Noise pollution is the most common problem faced by humans, thanks to various reasons that push many people to face health issues. Following standard measures can be helpful in the long term for both humans and the environment. The ultimate aim is to bring down noise pollution for a better environment.

### **Noise Pollution: Impact on Human Health**

There are several ways in which noise pollution can harm human health:

- Having an elevated blood pressure for a long period directly results in hypertension, which is caused by noise pollution.
- Hearing loss occurs whenever humans are repeatedly exposed to sounds that exceed what their eardrums can handle, resulting in permanent damage to their hearing.
- To function properly at work, it is necessary to get enough sleep every night. Sleep disorders affect energy levels throughout the day. Pollution causes disturbance in sleep cycles, which in turn results in irritation and unrest.
- Heart issues such as blood pressure level, stress and cardiovascular diseases can arise in a healthy individual, but a person suffering from heart disease may experience a sudden increase.
- It will affect your mental health also very badly because continuously hearing the noise this much loud will pressure your eardrums and that will badly affect your brain also