

NOISE POLLUTION

Noise pollution has an adverse impact on the environment as well as life. We need to generate sufficient awareness about the threat of noise pollution and also take remedial measures to mitigate its ill-effects.

- Noise pollution at Imphal has exceeded the permissible limits and they are posing health hazards.
- According to Manipur Pollution Control Board (MPCB) "the noise and air pollution caused by diesel auto-rickshaws has crossed the permissible limits with the noise level exceeding 65 decibels".
- Noise monitoring at BT Road between 1 pm and 2 pm recorded 73.5 db. Noise level recorded at Governor Road was 75.5 db. Out of 27 diesel auto-rickshaws tested, four were found emitting noise and smoke beyond the permissible limits.
- Sounds of less than 75 decibels, even after a lengthy exposure, are unlikely to cause hearing loss. However extended or repeated exposure to sounds at or above 85 decibels can cause hearing loss
- World Health Organization stated that "Noise must be recognized as a major threat to human wellbeing".

EFFECTS OF AIR POLLUTION ON HUMANS

- **Hearing impairment**
- **Interference with spoken communication**
- **Decrease in efficiency**
- **Lack of concentration**
- **Fatigue**
- **Sleep disturbances**
- **Cardiovascular disturbances**
- **Disturbance in mental health**
- **Impaired task performance**
- **Negative social behavior**
- **Abortion / abnormal fetus**
- **Temporary or permanent deafness**

EFFECTS OF AIR POLLUTION ON ANIMALS

- **Damages nervous system**
- **Altering prey/prey detection**
- **Creates problems in navigation**
- **Raise metabolism**
- **Death of certain species**
- **Genetic and evolutionary problems**
- **Chronic stress**
- **Hormone imbalance**
- **Panic and escape behavior**
- **Loudness of interspecies communication**

- ❖ Exposure to excessive sounds can adversely affect a person's hearing.
- ❖ People who exposed to noise pollution can be victims of many serious diseases. Loss of concentration, irritability, depression, impotence, even life-threatening diseases like cancer are among the several ill-effects of noise pollution.
- ❖ Due to increasing number of vehicles, loudspeakers and noise of the machines in industrial institutions, people are becoming vulnerable to mental stress and infection of the respiratory tract
- ❖ Fast sound wave directly influences the heart rate. This decreases the heart rate which multiplies the chances of heart attack. Noise pollution also leads to increase in the blood pressure and other diseases.
- ❖ If the high intensity exposure is not controlled, the patient may experience hearing loss, continuous ringing or buzzing sensation called tinnitus, headache, and irritation, lack of sleep, depression & difficulty in carrying out day-to-day activities.
- ❖ The intensity of the sound over the standard limit increases the likelihood of rupture of eardrums in children.



CONTROL AT SOURCE
Reducing the noise levels from domestic sectors
Maintenance of automobiles
Use of economic instruments
Control over vibrations
Low voice speaking
Prohibition on usage of loudspeakers
Maintenance of machines
Selection of machinery

CONTROL ON TRANSMISSION PATH
Installation of barriers
Installation of panels and enclosure
Green belt development

USING PROTECTIVE EQUIPMENT
Exposure reduction
Hearing protection
Protection at the receiver end

Noise control techniques
✓ Planting trees in and around noise generating sources
✓ Sound insulation
✓ Sound absorbing materials for wall, windows, and ceilings.
✓ Soundproof the laundry room
✓ Move devices away into a soundproof area
✓ Vibration damping, lubrication of machineries
✓ Speed control for roadways noise mitigation
✓ A noise reduction treatment for diesel engine: this treatment consisted of a set of sheet metal covers, lined internally with acoustical absorbing material, which were mounted directly over the noisy areas of the engine by means of built- in vibration isolation.
✓ Urban planning and management
✓ Community development with long term planning with an aim to reduce noise pollution
✓ Public awareness campaign regarding noise pollution

