# B.A 4th semester

# Paper-4016

# Environmental geography and disaster management

# • NOISE POLLUTION

The word noise is defined as, "a loud, unpleasant or unwanted sound that causes discomfort to ears".
Noise pollution may be defined as, "The unwanted sound dumped into the atmosphere leading to health hazards".

**Sources of Noise Pollution**

a) Transport vehicles as scooters, cars, buses, jets, trucks, motor cycles, trains, etc.

b) Entertaining sources as radios, TVs, transistors, DVDs, CDs, computers, record players, other musical instruments, etc.

c) Domestic gadgets as coolers, air conditioners, exhaust fans, vacuum cleaners, washing machines, pressure cookers, food mixers, fans, telephones, lawn mowers, etc.

d) Industries like textile mills, printing press; engineering establishments, etc.

e) Agricultural machines such as tractors, trolleys, harvesters, tube-wells, etc.

f) Construction activities as mixers, scrapers, bulldozers, road rollers, drilling machines, trolleys etc.

g) Crackers used on marriages and Diwali.

h) Religious and family ceremonies

- **Effects of noise pollution**

a) Auditory fatigue appears at about 90 dB and may be associated with side effects as whistling and buzzing in ears.

b) Deafness may be caused due to permanent damage of sensory cells of hearing when subjected to prolonged and continued exposure of noise. Temporary deafness occurs at 4000-6000 Hz and beyond 100 dB.

c) Annoyance or emotional disturbances may be caused at even low level of noise such as crowd, highway, radio etc:

d) Sudden high intensity sound causes startle reactions that may affect psychomotor performance. It also causes Insomnia and fatigue

e) Hypertension: decreased heart output, high Cholesterol and high blood pressure.

f) Gastric problems: gastric spasms, nausea and peptic ulcers.

g) Eyesight problems: headache, eye strain, defective sight and colour vision.

h) Impairment of developing nervous system of unborn babies which may lead to abnormal behaviour in later life.

- **Control of noise pollution**

a) Highway traffic should not be allowed to pass through towns and cities. It should be diverted through bye-passes and over-bridges. Pressure horns should not be allowed.

b) Noisy machines should be installed in sound-proof chambers.

c) Proper lubrication and maintenance of machines can reduce noise.

d) Protective devices like ear muffs or cotton plugs should be provided to workers working in noisy installations.

e) 4-5 rows of trees and shrubs should be grown along roads, rails, around industrial area and residential complexes in order to decrease the intensity of the sound.These rows of trees are also called as Green Belts. They reduce noise level by 10-15 dB. Trees help reduce noise pollution by absorbing sound. Example: Neem, Ashoka, Tamarind, etc.

f) Enforcing acoustic zoning by keeping human settlements away from noise producing industries, aerodromes, railway stations etc. Silence zones should be created for educational institutes, hospitals and important offices.

**Legislative measures taken**

- a) Excessive noise has been registered as a crime (Section 268 of IPC).
- b) Noise Pollution (Regulation and Control) Rules, 2000 have been notified.
- c) Noise has been recognized as a pollutant (Environment Act 1986).
- d) Day and night limits of noise level have been prescribed.
- e) 100 metre radius area around hospitals, educational institutions and courts has been declared a 'Silence Zone' where use of horns, loudspeakers and bursting of crackers is banned.
- Use of loudspeakers is a public nuisance and is punishable under section 133 of IPC.