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Page - i



CAUSES & EFFECT OF NOISE POLLUTION ON ENVIRONMENT

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ABSTRACT:

Pollution involves introduction of undesirable and harmful – material in the form of a gas, liquid or solid as such or in dissolved state in an ecosystem. Noise Pollution is one among from water, air, soil pollution. Because of the increasing population the usage of cars and emerging of big factories and power plants create massive pollution in Environment. In this paper we focus on the causes & major effects of noise pollution on environment.

KEYWORDS: Environment, Noise Pollution & Pollution

INTRODUCTION:

Environment science is an interdisciplinary academic field that integrate physical, biological & information science such as zoology, geology, oceanography, soil science etc. The term environmental science refers to a grouping of scientific discipline that are concerned with the physical, chemical & biological characteristics of the surroundings in which organisms live. All the living things that live on this earth comes under the environment. It also includes air, water, sunlight, plants, animals etc. The earth is considered the only planet in the universe that supports life. Environment plays an important role in the healthy living & the existence of life on planet earth. Earth is home for different living species & we all are depends on the environment for food, air, water & other needs. So being human it is our prime duty to save & protect this valuable environment. Our environment provides a wide range of benefits such as the air we breathe, the food we eat & the water we drink. Food, cloth & shelter are the basic need environment to obtain our food, water, fuel, medicines etc.

NEED TO PROTECT ENVIRONMENT:

Our environment is what houses & helps our ecosystem grow & thrive without protecting & taking care of our environment. We are putting so many lives at danger such as animals, plants & crops & even our own. All of the ecosystem that make up our environment are deeply connected. For us it is very difficult to complete our journey of life without these things. Human being is selfish personality. We protect our homes, cars, money, family but we are very careless with environment. Environment science is important because it enables you to understand how these relationship work.

Humans breathe out carbon dioxide which plants need for photosynthesis. Plants produce & release oxygen to the atmosphere which humans need for respiration. There are many simple things that can help us to protect our environment. Follow 3-R formula to protect our environment. 3-R formula means Reduce, Reuse & Recycle. We should conserve water. Tree plantation is very essential & important. If every person in a family decides to celebrate their birthday by planting a tree then it will conserve the environment. Noise is one of the constituents of overall environment pollution. The menacing proportion in which it is growing in our environment these days is becoming a matter of concern for all of us. It has been established that excessive noise is not only adversely affecting the health of human beings but is also health hazard to all living beings even the non-living things are not self-unaffected by high intensity of noise. Noise Pollution is pollutant in which man has added to his miseries himself by not properly understanding the effects which noise has on public health. The necessity of a healthy environment is well recognized for human health and happiness.

Noise Pollutant become a great nuisance these days. It is spreading so fast that it has started polluting the environment of the society. Noise is unwanted or undesired sound. Noise as pollutant produces contaminated environment which affects adversely the health of a person and produces ill effects on living as well as non-living things. Sound is the form of energy giving sensation of hearing. Noise is unwanted sound without agreeable musical quality. Otherwise, sound and noise can be taken to mean the same thing but in considering our acoustic environment. The sources of noise pollution are Industrial sources and Non-industrial sources. In Industry noise is a by-product of energy conversion. Cotton Mills, Foundries and many other industries where big machines are working at high speed have noise pollution. The Loudspeakers, Automobiles, Trains, Air crafts, Construction work, Radio, Microphones are the types of Non-industrial source. Noise levels are measured in decibels. One decibel is the threshold of hearing 30 decibels denotes the whispering range 50-55 decibel may delay or interfere with sleep, 60 decibels is the level of normal talk. 90-95 decibel may cause irreversible changes in the automatic nervous system. 150-160 decibels prove fatal to some animals. The indecibels noise quanta in the noisiest area of some of the cities in our country are Delhi (89), Calcutta (87), Bombay (85), Cochin (80).

ENVIRONMENTAL NOISE:

It refers to the kind of noise occurring from a range of environmental activities. This is from the mating call animals to the sound of the thunderstorms that often go up to 140 db.

CAUSES OF NOISE POLLUTION ON HUMAN & WILDLIFE:

Large scale industry causes noise pollution. Various equipment like compressors, generators, exhaust fans, boilers, pumps, engines etc. produces noise pollution. Noise is at its peak in most of the social events like marriages, parties, pub. A large number of vehicles on roads, airplane flying over houses, underground trains produce heavy noise. The noise made by animals cannot go unnoticed, particularly howling or barking dog. These can produce 60-80 db. Wildlife faces for more problems than humans because of the noise pollution. Since they are more dependent on sound. Animals develop a better sense of hearing than us. Since their survival depends on it. Pets reacts more aggressively in households where there is constant noise. Just as noise pollution negatively impacts human health, it also affects wildlife. It can interfere with animal communication, hinder their foraging abilities and impact where they live. A recent study published in Biology Letters found that human-created noise is affecting a wide range of animals — from birds, fish, mammals and amphibians, to arthropods, mollusks and reptiles. Noise pollution, also known as anthropogenic noise, is caused by cars, trucks, airplanes, ships, oil extraction, factories, industrial activities and sounds from cities, among others. Researchers found that wildlife in many different land- and aquatic-based ecosystems showed significant responses to human-created noise. In most of the developing countries, poor urban planning also plays a vital role. Congested houses, large families sharing small space, fight over parking, frequent fights over basic amenities lead to noise pollution, which may disrupt the environment of society. Noise pollution in urban settings may also be caused when residential properties and industrial buildings are in proximity. In situations like these, the noise from the nearby industrial property might hinder the basic well-being of the individuals living in residential properties. It doesn't just affect their sleep and hours of rest but also has an adverse effect on the development and well-being of children. A large number of vehicles on roads, airplanes flying over houses, underground trains produce heavy noise, and people find it difficult to get accustomed to that. The high noise leads to a situation wherein a normal person loses the ability to hear properly. Under construction activities like mining, construction of bridges, dams, buildings, stations, roads, flyovers takes place in almost every part of the world. These construction activities take place every day as we need more buildings, bridges to accommodate more people. However, while this does help us to some degree, in the long run, the noise from construction activities hinders the hearing abilities of individuals exposed to this sound. A part of it includes construction workers who participate in these activities, while another part of it consists of people who encounter these noises either from their homes or while traveling.



EFFECTS OF NOISE POLLUTION:

Human ear is sensitive to sound levels ranging from 0 dB to 150 db. However sound levels beyond 70 -80 dB cause plenty of discomfort, irritation and a variety of physiological disturbances.

1) Loss of Hearing :-

The most common ill effect of noise pollution is impairment of hearing ability of an individual very loud sudden and impulsive noises such as bomb blast are capable of causing acute damage to auditory system and an abrupt loss of hearing.

2) Other Health Effect of Noise Pollution :-

Noise affects our cardiovascular system. Loud noise tend to decrease the output of blood from heart cause arterial blood pressure to fluctuate and smaller blood vessels of body constrict reducing the flow of blood to organs concerned. Heartbeat rate is affected.

3) Hearing Problems :-

Any unwanted sound that our ears have not been built to filter can cause problems within the body. Our ears can take in a certain range of sounds without getting damaged. Man-made noises such as jackhammers, horns, machinery, airplanes, and even vehicles can be too loud for our hearing range. Constant exposure to loud levels of noise can easily result in the damage of our eardrums and loss of hearing, causing tinnitus or deafness. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.

4) Psychological Issues :-

Excessive noise pollution in working areas such as offices, construction sites, bars and even in our homes can influence psychological health. Studies show that the occurrence of aggressive behavior, disturbance of sleep, constant stress, fatigue, depression, anxiety, hysteria and hypertension in humans as well as animals can be linked to excessive noise levels. The level of irritation increases with increased noise, and people tend to become less and less patient. These, in turn, can cause more severe and chronic health issues later in life.

5) Physical Problems :-

Noise pollution can cause headaches, high blood pressure, respiratory agitation, racing pulse, and, in exposure to extremely loud, constant noise, gastritis, colitis and even heart attacks may occur.

6) Cognitive Issues & Behavioral Changes :-

Noise affects brain responses and people's ability to focus, which can lead to low-performance levels over time. Like other sound waves, too much noise when it goes to the brain leads to lower response rates as well as making the mind dull. It is also poor for memory, making it

hard to study. The studies have shown that school children living near railway stations or airports have problems in learning. Research has shown that people who live near airports or busy roads, usually have a higher incidence of headaches, take more sleeping pills and sedatives, are more prone to minor accidents, and are more likely to seek psychiatric treatment.

7) Sleeping Disorders :-

While it may not seem like much at this point, excessively high levels of noise are likely to hamper your sleeping pattern, thereby leading to irritation and uncomfortable situations. Without a good night's sleep, you might experience multiple problems related to fatigue. This will affect your performance in the office as well as at home. It is therefore recommended to take a sound sleep to give your body proper rest. If a certain noise is disturbing your sleep, take an actionable measure to reduce it. While in some instances, it is completely unavoidable; there are other instances (like noise from TV or gadgets) that can be easily avoided by making good lifestyle changes. Interestingly, our ears need rest for 16 hours and even more to make up for two hours of exposure to 100 db.

8) Cardiovascular Issues :-

Blood pressure levels, cardiovascular disease, and stress-related heart problems are on the rise. Studies suggest that high-intensity noise causes high blood pressure and increases heartbeat rate as it disrupts the normal blood flow. Since bringing these rates to a manageable level depends on our understanding of noise pollution, we need to be wary of the ill-effects and tackle these situations mindfully.

CONCLUSION:

Pollution is necessary evil of all development. Due to lack of development of culture of pollution control our environment is in danger situation. We should make every effort to reduce every kind of pollution to avoid resources waste. Government can take measures such as protecting certain areas, parts of the countryside areas of natural interest, city parks etc. To ensure noise management & reduce noise pollution. We should fine for exceeding noise limits.

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