

RANIGANJ GIRLS COLLEGE

ENVIRONMENTAL STUDIES

PROJECT

ON

SOUND POLLUTION IN RANIGANJ AREA

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A Project Report

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CERTIFICATE

This is to certify that this project titled “Different aspects of Air, Soil, Water, Noise pollution” submitted by the students for the award of degree of B.A. Honours/ Program is a bonafide record of work carried out under my guidance and supervision.

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Signature of the supervisor with designation and department

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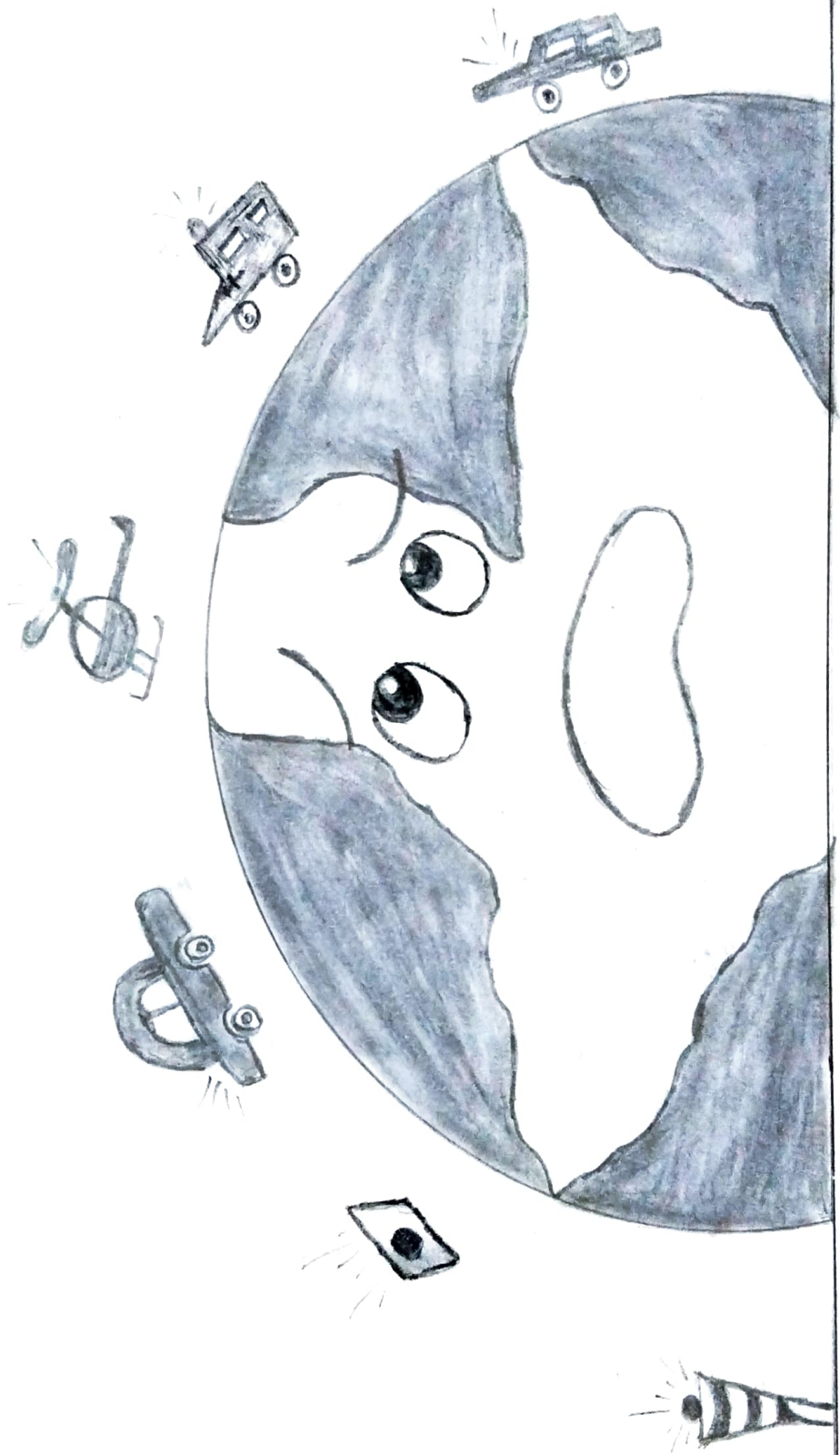
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INTRODUCTION

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

Documented problems associated with sound 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 sound

SOUND POLLUTION



Pollution in the United States is the highest in low-income and racial minority neighborhoods, and sound pollution associated with household electricity generators in an emerging environmental degradation in many developing nations.

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.

A substantial amount of the sound that humans produce occurs in the ocean.

OBJECTIVES

Sound pollution is one of the most significant pollutions nowadays. Sounds above 85 dB is dangerous for us if we listen to it for a long period.

• Objectives to prevent the sound pollution:-

- 1) Avoid loud DJ and sounds during festivals
- 2) Avoid using speakers during election campaigns
- 3) Avoid using noisy firecrackers in the festivals or any occasions.

• Sound pollution like other pollutants is also a by-product of industrialization, urbanizations and modern civilization. Most leading sound sources will fall into the following categories: roads traffic, aircraft, railroads, construction, industry, noise in buildings, and consumer products.

• Road Traffic Sound:-

In the city, the main sources of traffic sound are the motors and exhaust system of autos, smaller trucks, buses, and motorcycles. This type of sound can be augmented by narrow streets and tall

buildings, which produce a canyon in which traffic sound reverberates.

• Sound in Industry:-

Although Industrial sound is one of the less prevalent community sound problems, neighbors of noisy manufacturing plants can be disturbed by sources such as fans, motors, and compressors mounted on the outside of buildings. Interior sound can also be transmitted to the community through open windows and doors, and even through building walls.

• Sound in building:-

Apartment dwellers are often annoyed by sound in their homes, especially when the building is not well designed and constructed. In this case, internal building noise from plumbing fixtures, generators, air conditioners, and fans, can be audible and annoying. Improperly insulated wall and ceilings can reveal the sound of - amplified music, voices, footfalls and noisy activities from neighboring units. External noise from emergency vehicles, traffic, refuse collection and other city sounds can be a problem for urban residents, especially

when windows are open or insufficiently glazed.

• Harmful effects :-

on Human Being, Animal and Property; Sound has always been with the human civilization but it was never so obvious, so intense, so varied & so pre pervasive as it is seen in the last of this Century. Sound pollution makes men more irritable.

The effect of noise pollution is multifaceted & inter related.

• Project of Methodology :-

Some of the ways to control sound pollution are as follows;

- a. Start monitoring human exposures to sound,
- b. Have health control require mitigation of sound emissions. The mitigation procedures should take into consideration specific environments such as schools, playgrounds, homes and hospitals; environments with multiple sound sources or which may amplify the effect of sound; sensitive time periods, such as evenings, ~~at~~ nights and holidays; and groups at high risk, such as children and the hearing impaired.

- c. Consider sound consequences when making decisions on transport-system and landuse planning.
- d. Introduce surveillance systems for sound-related adverse health effects.
- e. Assess the effectiveness of sound policies in reducing sound exposure and related adverse health effects, and in improving supportive "Sound-Scapes";

OBSERVATIONS

pollution has reached to it's highest level these days. Sound pollution is another form of pollution where an irregular disturbing sound vibration is referred to as noise. Sound pollution gives rise to health hazardous like head ache, hearing problem, nausea, heart problems. etc.

This sound pollution is caused by many ways:-

- 1) The sound generated by the ~~ar~~ aeroplanes while landing.
- 2) The sound created by the air horns used at railways.
- 3) The loud music systems used during occasions.
- 4) The automobiles and the bikes without silencers.

Analysis of Data.

The concept of an environmental noise impact analysis (ENIA) is central to the philosophy of managing environmental noise. An ENIA should be required before implementing any project that would significantly increase the level of environmental noise in a community (typically, greater than a 5 dB increase).

The first step in performing an ENIA is to develop a baseline description of the existing sound environment. Next, the expected level of sound from a new source is added to the baseline exposure level to produce the new overall sound level. If the new total noise level is expected to cause an unacceptable impact on human health, trade-off analyses should then be performed to assess the cost, technical feasibility and community acceptance of sound mitigation measures it is strongly recommended that ~~com~~ countries develop standardized procedures for performing ENIAs (Finegold et al. 1998; SABS 1998).

CONCLUSIONS

Successful sound management should be based on the fundamental principles of precaution, the polluter pays and prevention. The sound abatement strategy typically or guidelines, and the identification, mapping and monitoring of sound sources and exposed communities. A powerful tool in developing and applying the control strategy is to make use of modeling. These models need to be validated by monitoring data. Sound parameters relevant to the important sources of sound must be known. Indoor sound exposures present specific and complex problems, but the general principles for sound management hold.

The main means for sound control in buildings include careful site investigations, adequate building design and building codes, effective means for addressing occupant complaints and symptoms, and building diagnostic procedures.

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