

MINOR RESEARCH PROJECT

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Project Title: NOISE POLLUTION ANALYSIS AND GIS BASED NOISE POLLUTION MAPPING IN THANE CITY OF MAHARASHTRA

Write up

Noise pollution is unwanted sound that is produced by various natural or man-made sources such as oceans and construction and industrial activities. Noise can have many adverse effects like hearing impairment, sleep disturbance, reduced performance, annoyance and harming psychological functions. There are several legislations relating to noise pollution including Noise Pollution (Regulate and control) Rules, 2000. As a safeguard against harmful noise levels, the Pollution control Board has specified noise standard for various categories of areas such as silence or sensitive (40-50 dB) and industrial (70-75 dB), where lower range in parenthesis is for night and upper range is for daytime noise levels. In a city like Mumbai, where there is lack of proper planning, we find that all major roads are bound by residential and commercial areas. Thus, the noise that is created affects the people affecting their health. To analyze the same, a case study of the Thane city is undertaken.

Noise is a significant environmental problem in many Indian cities, transportation sector being a significant contributor. The present study is an

attempt to assess noise pollution at 24 traffic junctions in the city. Mumbai is located on Salsette Island, off the west coast of Maharashtra. The city is the most populous city in the world, with a population of 12.38 million (Bhairavi, 2004) and a very high population density the city is continuing to grow further. Public transport (railways and buses) carries 88 per cent of the trips in the city with 6.1 million passengers per day by trains and 4.5 million journeys per day by the local buses run by Bombay Electric Supply and Transportation. (Bhairavi, 2004). The city has spread its tentacles in the fringes leading to suburban sprawl but has not been able to provide adequate facilities. Thane city has seen high influx of population and it has also spread its sprawl in Ghodbunder.

The vehicular traffic is the major source of noise is now a well documented fact in Indian cities. Therefore an attempt has been made to study traffic noise pollution in the suburb of Mumbai city- Thane

The study has an interdisciplinary relevance to the various faculties of environment and industry which includes; Environment, Commerce, Management, Social Sciences, Geography, etc. The study of noise pollution will unearth the areas where traffic is the highest. It will give future direction to Government and will enable to make various policy decisions in the area of commerce, management and technology. The role of noise pollution is very crucial not only at regional, local, national level but also at international level.

The study also demands the patterns and mapping of the same so as to ensure effective implementation of the policy decisions.