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A STUDY ON NOISE POLLUTION IN SELECTED EDUCATIONAL INSTITUTIONS OF MAJALTA, DISTRICT UDHAMPUR, JAMMU AND KASHMIR

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Abstract: **Noise pollution has emerged as a significant environmental concern due to rapid urbanization, increasing transportation, and human activities. Educational institutions require a peaceful environment for effective teaching and learning; however, excessive noise may interfere with students' concentration, communication, and overall academic performance. The present study was undertaken to evaluate the noise levels in selected educational institutions of Majalta locality in District Udhampur, Jammu and Kashmir. Five government schools were selected randomly, and each school was divided into three monitoring locations: classroom, outside the classroom, and playground. Noise measurements were recorded during two time intervals, namely 08:00–10:00 hours and 15:00–16:00 hours, using a calibrated digital sound level meter. Equivalent Noise Level (Leq), maximum sound pressure level (Lmax), and minimum sound pressure level (Lmin) were calculated from the observed readings.**

The findings revealed noticeable variations in noise levels among different schools and monitoring locations. In most schools, playgrounds recorded comparatively higher noise levels during active school hours, while classrooms also exhibited sound levels exceeding the recommended limits during several observations. The afternoon period generally showed higher equivalent noise levels than the morning period due to increased student movement and outdoor activities. The study indicates that continuous exposure to elevated noise levels may adversely influence the learning environment and highlights the need for regular monitoring, awareness programmes, and effective noise management strategies in educational institutions.

Keywords: **Noise pollution; Educational institutions; Equivalent Noise Level (Leq); Sound Pressure Level (SPL); Classroom environment; Academic performance; Majalta; Udhampur.**

I. INTRODUCTION

Environmental pollution has become one of the most pressing global concerns accompanying rapid industrialization, urbanization, and population growth. While considerable attention has traditionally been focused on air, water, and soil pollution, noise pollution has increasingly emerged as a serious environmental issue due to its adverse effects on human health and quality of life. Unlike other forms of pollution, noise leaves no visible residue; however, continuous exposure to excessive sound can produce significant physiological, psychological, and social consequences. As human activities continue to expand, environmental noise has become an unavoidable component of everyday life, particularly in urban and semi-urban areas.[12].

Noise is generally defined as any unwanted or unpleasant sound that interferes with normal activities or causes discomfort to individuals.[16].

The term "noise" is derived from theLatin word nausea, meaning discomfort or sickness, reflecting the harmful effects associated with excessive sound. [2].

Although the perception of noise varies from person to person depending on individual sensitivity, age, occupation, and environmental conditions, prolonged exposure to high intensity sound is widely recognized as detrimental to human health.[8]

Unlike pleasant sounds such as music or natural environmental sounds, noise is characterized by its disruptive

nature and its potential to interfere with communication, concentration, relaxation, and sleep.[19] [11].

Noise pollution has become an important environmental health issue because of its widespread occurrence and cumulative effects.[13].

Continuous exposure to elevated noise levels has been associated with hearing impairment, hypertension, cardiovascular diseases, increased stress hormone secretion, sleep disturbances, fatigue, anxiety, reduced work efficiency, and impaired cognitive performance.[20] [10][6].

Children are particularly vulnerable to the harmful effects of environmental noise because their cognitive abilities, language development, and learning skills are still developing.[17]. Studies have demonstrated that chronic exposure to excessive noise may reduce reading comprehension, memory retention, attention span, and problem-solving abilities among school-going children. [5]

Consequently, maintaining an appropriate acoustic environment within educational institutions has become a priority for educators, environmental scientists, and public health professionals.[3].

Educational institutions are expected to provide a calm and supportive atmosphere that facilitates effective teaching and learning. However, schools are frequently exposed to noise originating from vehicular traffic, nearby markets, construction activities, public address systems, industrial operations, and recreational activities within the school premises. Such sources contribute to elevated ambient noise levels, which may interfere with verbal communication between teachers and students, reduce classroom concentration, and negatively influence academic performance. Noise in classrooms often compels teachers to raise their voices, resulting in vocal strain and reduced teaching efficiency, while students may experience difficulty in understanding lessons, maintaining attention, and completing academic tasks effectively.

The World Health Organization (WHO) has recognized environmental noise as one of the leading environmental risks to public health after air pollution.[1].

WHO guidelines recommend maintaining relatively low background noise levels in classrooms to ensure clear speech communication and effective learning. Similarly, the Central Pollution Control Board (CPCB), Government of India, has prescribed permissible ambient noise standards for different land-use categories, including silence zones surrounding educational institutions and hospitals.

Despite the existence of these guidelines, noise levels in many schools continue to exceed recommended limits due to inadequate urban planning, increasing traffic density, and lack of effective enforcement of environmental regulations.

India has experienced remarkable growth in transportation, urban expansion, and infrastructure development during recent decades. Although these developments have contributed significantly to socio-economic progress, they have also resulted in increased environmental noise. Rural and semi-urban areas, which were previously characterized by relatively peaceful surroundings, are now witnessing increased vehicular movement, commercial activities, and population density. Consequently, educational institutions located in these regions are becoming increasingly exposed to environmental noise, thereby affecting the quality of education and the overall learning environment.

Majalta Tehsil of District Udhampur in the Union Territory of Jammu and Kashmir represents one such developing region where transportation facilities, educational infrastructure, and human activities have expanded considerably over the years. The tehsil comprises several government educational institutions serving students from surrounding rural communities. Although these schools are expected to provide a conducive environment for academic learning, the growing influence of transportation, playground activities, nearby settlements, and other community-related sources may contribute to elevated noise levels during school hours. However, systematic scientific investigations assessing environmental noise within educational institutions of this region remain limited.

Assessment of environmental noise using standardized instruments such as digital sound level meters provides valuable information regarding the acoustic quality of educational environments. Parameters such as Equivalent Continuous Noise Level (Leq), Maximum Sound Pressure Level (Lmax), and Minimum Sound Pressure Level (Lmin) are commonly used to quantify noise exposure and compare observed values with prescribed environmental standards. Such assessments not only help identify areas experiencing excessive noise but also provide evidence for planning effective mitigation measures, including traffic regulation, plantation of green belts, improved school infrastructure, and awareness programmes among students and local communities.

Considering the limited information available on environmental noise in educational institutions of Majalta locality, the present study was undertaken to evaluate noise pollution in selected government schools of the area. Noise levels were monitored at different locations within each school, including classrooms, areas outside classrooms, and playgrounds, during both morning and afternoon periods. The study aims to generate baseline scientific data on the prevailing acoustic conditions in these educational institutions, compare noise levels across different locations and time periods, and assess their compliance with

recommended standards. The findings of the study are expected to contribute to environmental planning and provide useful recommendations for improving the learning environment, protecting students' health, and promoting sustainable educational development in the region.

Collectively, these studies indicate that environmental noise is an emerging public health concern, particularly in densely populated and traffic-dominated areas. However, limited research has been conducted on noise pollution in educational institutions located in rural and semi-urban regions of Jammu and Kashmir. The present study aims to address this gap byassessing the acoustic environment of selected schools in Majalta locality.

II. REVIEW OF LITERATURE

Noise pollution has a significant environmental concern, particularly in educational institutions and urban areas, where it adversely affects human health, learning outcomes, and overall well being. Recent literature demonstrates that environmental noise is increasingly recognized as both a public health and educational challenge. El Malki et al. (2026) systematically reviewed noise pollution in Morocco, highlighting regulatory gaps, urban noise sources, and the need for stronger policy implementation and monitoring systems. Similarly, Ucheje and Balafama (2025) reported that environmental hazards, including excessive noise, negatively influence the academic performance of public secondary school students by reducing concentration and learning efficiency.

Several studies have specifically examined noise exposure in educational settings. Ali et al. (2023) comprehensively reviewed major noise sources affecting college and university students and documented their adverse impacts on physical health, mental well-being, and academic performance. Abulude et al. (2024) focused on libraries, demonstrating that noise disrupts reading, learning, and information retention while recommending improved acoustic design and noise management strategies. Latha et al. (2022) assessed noise pollution within an educational institution and confirmed that ambient noise levels frequently exceeded recommended standards.

Recent empirical studies have advanced the understanding of school noise exposure using monitoring and spatial analysis techniques. Fatima et al. (2023) observed elevated noise levels in schools across Kargil, India, while Shukla et al. (2025) established a significant association between roadside traffic noise and reduced cognitive performance among schoolchildren. Shukla et al. (2026) further employed noise monitoring and spatial mapping to identify high risk school environments, providing valuable evidence for urban planning. In addition, Shukla et al. (2025) demonstrated that prolonged urban noise exposure adversely affects teachers' auditory health and mental well-being.

Urban-scale investigations also emphasize the need for effective noise management. Alam et al. (2024) proposed 2D noise mapping as a practical approach for mitigating urban noise near international borders, whereas Khajuria et al. (2023) utilized GIS-based noise modelling to identify noise hotspots in Srinagar City. Although Khan et al. (2024) primarily examined socio economic and environmental vulnerabilities in Jammu's urban slums, their findings underscore the importance of addressing environmental stressors, including noise pollution, in vulnerable communities. Collectively, these studies highlight the widespread impacts of noise pollution and emphasize the need for integrated monitoring, urban planning, regulatory enforcement, and targeted interventions to create healthier educational and urban environments.

III. METHODOLOGY

The present investigation was carried out in selected government educational institutions located in Majalta Tehsil of District Udhampur, Union Territory of Jammu and Kashmir. The study area has an approximate population of 51,096 and comprises both rural and semi-urban settlements.

Five government schools were selected randomly for the study:

- Middle School Battal
- Middle School Baryalta
- Government Middle School Majalta
- Government Higher Secondary School Majalta
- Middle School Majalta

Noise measurements were conducted using a calibrated Digital Sound Level Meter. (A digital Sound Lutren SL 4010 was used [9], [22](Krishnamurthy et al., 2007; Ziauddin et al., 2007) which can measure noise level between 0 and 150 dB and calibrated at 100 dB (A). All readings were recorded at 1.5 m height from the ground[4] (Ghafoor et al., 2012) and 7.5 m away from the source and at regular interval of one minute.

Observations were recorded during two time periods: morning (0800–1000 hours), afternoon (1200–1400 hours) and evening (1500-1600 hours). At each monitoring location, twenty sound pressure level (SPL) readings were taken at intervals of 30 seconds over a duration of ten minutes. During each sampling session, the minimum (Lmin), maximum (Lmax), and equivalent continuous sound level (Leq) were determined.

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The equivalent noise level (Leq), representing the average sound energy over the sampling period, was calculated using the following equation:

$Leq = 10 \log_{10} [\Sigma(fi \times 10^{(Li/10)})]$ dB(A)

where:
• **fi** = fraction of time during which a particular sound level persists,
• **Li** = sound pressure level corresponding to the observation,
• **n** = total number of observations.

The recorded data were compiled to obtain average values of Leq, Lmax, and Lmin for each location and observation period. The results were analysed comparatively to evaluate variations in noise levels among schools, monitoring sites, and sampling periods. The observed values were further interpreted to assess the acoustic conditions prevailing in the educational institutions and their possible implications for the learning environment.

Table 1. Indoor and Outdoor Noise Levels at Selected Educational Institutions of Majalta (Morning: 0800–1000 hours)

Site	Area	Max	Min	Leq dB(A)
MS Battal	Inside classroom	73.1	28.2	70.1
MS Battal	Outdoor	79.3	26.5	76.3
MS Baryalta	Inside classroom	72.2	29.1	69.2
MS Baryalta	Outdoor	78.3	30.2	75.3
GMS Majalta	Inside classroom	72.5	29.4	69.5
GMS Majalta	Outdoor	80.1	29.7	77.1
HSS Majalta	Inside classroom	76.5	32.6	73.5
HSS Majalta	Outdoor	79.4	46.1	76.4
MS Majalta	Inside classroom	74.6	33.2	71.6
MS Majalta	Outdoor	79.3	29.8	76.3

The critical analysis of the noise data recorded during the morning sampling period (0800– 1000 hours) at different educational institutions revealed considerable variation in sound levels among the study sites. The highest Equivalent Continuous Noise Level of **77.1 dB(A) (outdoor)** was recorded at **Government Middle School (GMS) Majalta**, followed by **76.4 dB(A) (outdoor)** at **Higher Secondary School (HSS) Majalta**, **76.3 dB(A) (outdoor)** at **Middle School Battal**, and **76.3 dB(A) (outdoor)** at **Middle School Majalta**. The minimum value of **69.2 dB(A)** was recorded inside the classroom at **Middle School Baryalta** (Table 1).

Table 2. .Indoor and Outdoor Noise Levels at Selected Educational Institutions of Majalta (Afternoon: 1200–1400 hour)

Site	Area	Max	Min	Leq dB(A)
MS Battal	Inside classroom	75.3	29.6	62.2
MS Battal	Outdoor	81.7	27.8	67.6
MS Baryalta	Inside classroom	74.4	30.6	56.3

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MS Baryalta	Outdoor	80.6	31.7	65.6
GMS Majalta	Inside classroom	74.7	30.9	49.6
GMS Majalta	Outdoor	82.5	31.2	69.4
HSS Majalta	Inside classroom	78.8	34.2	58.7
HSS Majalta	Outdoor	81.8	48.4	64.7
MS Majalta	Inside classroom	76.8	34.9	63.7
MS Majalta	Outdoor	81.7	31.3	68.6

The critical analysis of the compiled noise data recorded during the afternoon sampling period (1200–1400 hours) at different educational institutions revealed that the highest Equivalent Continuous Noise Level, **Leq [dB(A)]**, of **69.4 dB(A) (outdoor)** was recorded at **Government Middle School (GMS) Majalta**, followed by **68.6 dB(A) (outdoor)** at **Middle School Majalta** and **67.6 dB(A) (outdoor)** at **Middle School Battal**. The minimum value of **49.6 dB(A) (inside the classroom)** was recorded at **Government Middle School (GMS) Majalta** (Table 2).

Table 3 .Indoor and Outdoor Noise Levels at Selected Educational Institutions of Majalta (Evening: 1500–1600 hours)

Site	Area	Max	Min	Leq
MS Battal	Inside classroom	76.1	29.9	42.9
MS Battal	Outdoor	82.5	28.1	59.4
MS Baryalta	Inside classroom	75.1	30.9	42.0
MS Baryalta	Outdoor	81.4	32.0	58.4
GMS Majalta	Inside classroom	75.4	31.2	40.2
GMS Majalta	Outdoor	83.3	31.5	40.2
HSS Majalta	Inside classroom	79.6	34.5	56.5
HSS Majalta	Outdoor	82.6	48.9	59.5
MS Majalta	Inside classroom	77.6	35.2	44.4
MS Majalta	Outdoor	82.5	31.6	69.4

Data presented in **Table 3** revealed that during the evening sampling period (1500–1600 hours), the highest Equivalent Continuous Noise Level, **Leq [dB(A)]**, of **69.4 dB(A) (outdoor)** was recorded at **Middle School Majalta**, followed by **59.5 dB(A) (outdoor)** at **Higher Secondary School Majalta**. The minimum value of **40.2 dB(A) (inside the classroom)** was recorded at **Government Middle School (GMS) Majalta** (Table 3).

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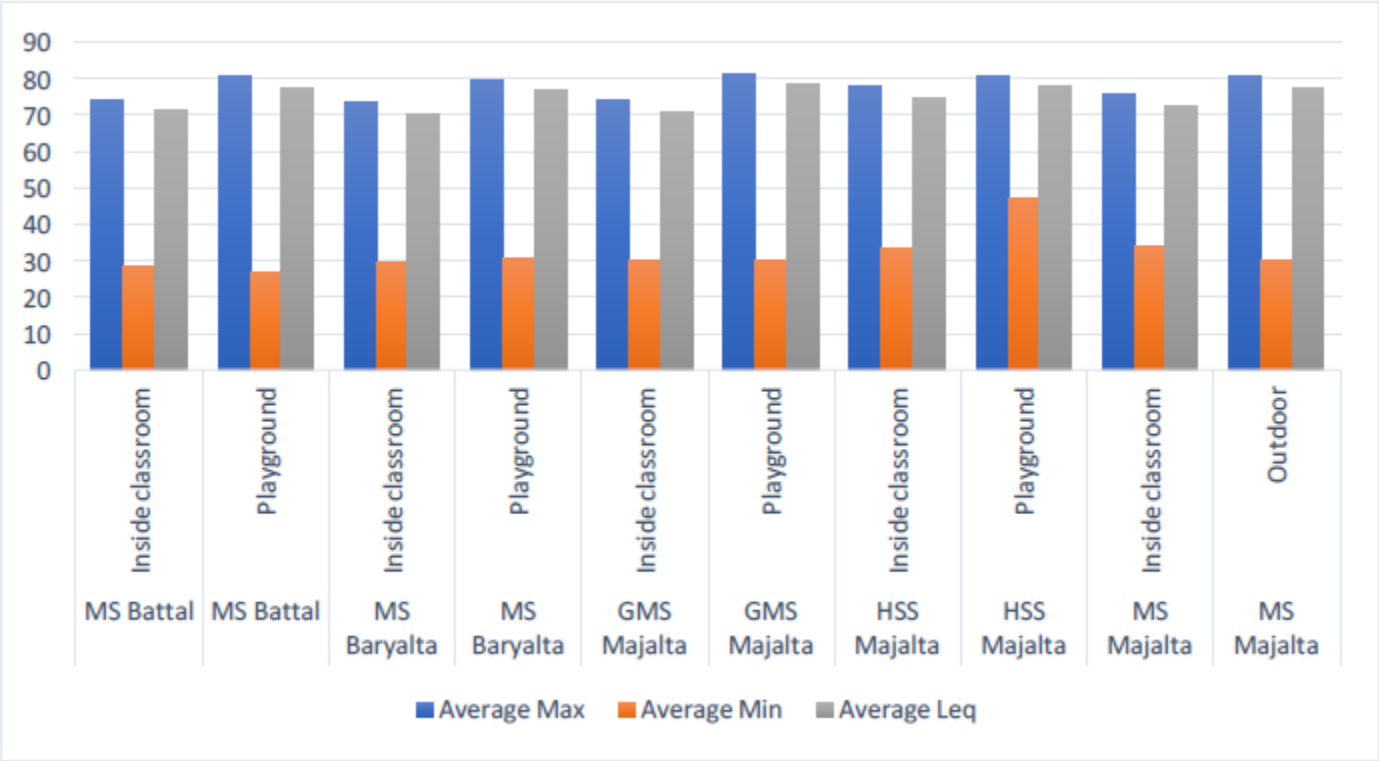

Fig.1:Average Noise level in dB(A)at Selected Educational Institutions of Majalta

The critical analysis of the average indoor and outdoor noise data recorded during the sampling period (Morning, afternoon and Evening) at different educational institutions revealed considerable variation in sound levels among the study sites. The highest **maximum Equivalent indoor noise level** was recorded at **Higher Secondary School Majalta** followed by **Middle** School Majalta. Maximum outdoor noise level was found at Govt. Middle School Majalta followed by MS Majalta.

IV. SUMMARY AND CONCLUSION

The present investigation was undertaken to assess the status of noise pollution in selected educational institutions of Majalta Tehsil, District Udhampur (UT of Jammu and Kashmir). Noise levels were monitored at different locations within the school premises, including classrooms and playgrounds, during morning and afternoon sessions using a digital sound level meter. The study generated baseline information on the prevailing acoustic environment in government schools of the study area.

The analysis of the recorded data revealed that noise levels varied among the selected schools depending on the location of measurement and the nature of activities taking place during the observation period. In general, playgrounds recorded higher sound levels than classrooms due to outdoor activities and student movement. However, indoor noise levels were also found to be considerably high in several schools, indicating that external noise sources as well as internal classroom activities contribute to the overall acoustic environment.

The observed variation in noise levels among the schools can reasonably be explained by differences in student enrollment, school activities, and surrounding traffic conditions. As shown in the graph, **HSS Majalta Playground** recorded the highest minimum noise level (approximately 48 dB) and one of the highest maximum noise levels (around 81 dB), indicating consistently elevated background noise. This may be attributed to a larger student population using the playground simultaneously during recess, sports activities, and assemblies. In addition, the school's location is close to busy roads or commercial areas, where continuous vehicular movement, honking, and pedestrian activity contribute to higher ambient noise. Outdoor environments are naturally more exposed to external noise sources, further increasing sound levels.

In contrast, **MS Battal Inside Classroom** and **MS Baryalta Inside Classroom** recorded comparatively lower minimum noise levels (approximately 28–30 dB) and lower equivalent noise levels. These schools may have smaller student enrollments, resulting in fewer classroom interactions and reduced movement within the school premises. Furthermore, if these schools are located in quieter rural settings with limited vehicular traffic, the contribution of external noise would be considerably lower. Classroom walls and closed windows also provide some insulation against outdoor sound, helping maintain lower indoor noise levels.

Overall, the findings suggest that schools with **higher student enrollment, more active playground use, and greater exposure to outdoor traffic** tend to experience higher environmental noise levels, whereas schools with **smaller student populations and quieter surroundings** exhibit lower noise levels. These factors collectively explain the differences observed in the measured maximum, minimum, and equivalent noise levels across the study sites.

The findings are consistent with earlier studies, including those reported by Rasool et al. (2016)[15], which also documented excessive noise levels in different institutional environments.

Based on the findings of the present investigation, it can be concluded that noise pollution is an important environmental issue affecting various educational institutions in the study area. Regular monitoring of noise levels, effective implementation of environmental noise standards, improved school infrastructure, development of green buffer zones, traffic management around schools, and awareness programmes for students, teachers, and the local community are recommended to reduce noise exposure and create a healthier learning environment. The results of this study provides important baseline information that may assist policymakers, educational authorities, and environmental planners in developing effective strategies for noise management in schools.

V. REFERENCES:

[1]. **Abulude F.O., Ademilua S.O., and Gbotoso A.O. (2024).** Noise Pollution in Libraries: Impacts, Strategies, and Recommendations, Indonesian Journal of Multidisciplinary Research, **4**(1), pp. 127–144.

[2]. **Addison T., and Vallabh S. (2002).** Controlling Software Project Risks – an Empirical Study of Methods used by Experienced Project Managers, in Proc. SAICSIT, pp. 128–140.

[3]. **Alam P., Ahmad T., Maqbool L., Islam R., Ahmad S., and Sharholy M. (2024).** Noise Pollution Mitigation and Control in Urban Areas Near International Borders through 2D Noise Mapping, Scientific Reports, **14**(1), Article 30582.

[4]. **Ali H.H.M., Farhan A.H., and Jawad A.S. (2023).** Comprehensive Review of Noise Pollution Sources, Health Impacts, and Acoustic Environments Affecting College and University Students, Mesopotamian Journal of Civil Engineering, **2023**, pp. 86–97.

[5]. **Chauhan R., Shrestha A., and Khanal D. (2021).** Noise Pollution and Effectiveness of Policy Interventions for Its Control in Kathmandu, Nepal, Environmental Science and Pollution Research, **28**(27), pp. 35678–35689.

[6]. **El Malki M., Khettabi A., de Figueiredo F.A., and Serrar M. (2026).** Systematic Review of Noise Pollution in Morocco: Regulatory Frameworks, Urban Impacts, and Policy Recommendations, International Journal of Environmental Research and Public Health, **23**(1), Article 73.

[7]. **Fatima K., Rampal R., Muslim M., and Hussain K. (2023).** Evaluating the Noise Exposure Levels of Different Schools in Noise-scapes of Kargil Town: Ladakh, India, Noise & Vibration Worldwide, **54**(4–5), pp. 215–223.

[8]. **Firdaus G., and Ahmad A. (2010).** Noise Pollution and Human Health: A Case Study of Municipal Corporation of Delhi, Indoor and Built Environment.

[9]. **Geravandi S., Takdastan A., Zallaghi E., Vousoghi Niri M., Mohammadi M.J., Saki H., and Naiemabadi A. (2015).** Noise Pollution and Health Effects, Jundishapur Journal of Health Sciences, **7**(1).

[10]. **Ghafoor A., Murtaza G., Sabir M., Hamaad H.R., Saifullah M., and Rahman Z.U. (2012).** Environment Pollution: Types, Sources, and Management, in Institute of Soil and Environmental Science, Chapter 9, pp. 229–247.

[11]. **Goines L., and Hagler L. (2007).** Noise Pollution: A Modern Plague, Southern Medical Journal, **100**(3), pp. 287–294.

[12]. **Hegewald J., Schubert M., Freiberg A., Romero Starke K., Augustin F., Riedel Heller S., et al. (2020).** Traffic Noise and Mental Health: A Systematic Review and Meta-analysis, International Journal of Environmental Research and Public Health, **17**, Article 6175.

[13]. **Himalayan News Service. (2019).** Noise Pollution Alarming in Kathmandu, The Himalayan, 25 June.

[14]. **Jariwala H.J., Syed H.S., Pandya M.J., and Gajera Y.M. (2017).** Noise Pollution & Human Health: A Review, ResearchGate.

[15]. **Khajuria A., Farooq M., Mushtaq F., and Solan P. (2023).** Noise Pollution Modelling Using GIS Techniques in Srinagar City, in Geospatial Analytics for Environmental Pollution Modeling: Analysis, Control and Management, pp. 267–286.

[16]. **Khan S., Rathore D., Singh A., Kumari R., and Malaviya P. (2024).** Socio economic and Environmental Vulnerability of Urban Slums: A Case Study of Slums at Jammu (India), Environmental Science and Pollution Research, **31**(12), pp. 18074– 18099.

[17]. **Krishnamurthy V., Majumder A.K., Khanal S.N., and Subedi D.P. (2007).** Assessment of Traffic Noise Pollution in Banepa, a Semi-urban Town of Nepal, Kathmandu University Journal of Science, Engineering and Technology, **4**(1), pp. 1– 9.

[18]. **Latha A., Ganesan R., and M. M. (2022).** Analysis of Noise Pollution for an Educational Institution, Electrochemical Society Transactions, **107**(1), pp. 12609– 12624.

[19]. **Ma J., Li C., Kwan M.-P., and Chai Y. (2018).** A Multilevel Analysis of Perceived Noise Pollution, Geographic Contexts and Mental Health in Beijing, International Journal of Environmental Research and Public Health, **15**, Article 1479.

[20]. **Millar H. (2020).** What Are the Health Effects of Noise Pollution?, Medical News Today, 22 December.

[21]. **Pantawane M., Maske M.K., and Kawade M.N. (2017).** Effects of Noise Pollution on Human Health, International Advanced Research Journal in Science, Engineering and Technology, **4**(3).

[22]. **Passchier W., and Passchier W.F. (2000).** Noise Exposure and Public Health, Environmental Health Perspectives, **108**(Supplement 1).

[23]. **Peris E. (2020).** Noise Pollution Is a Major Problem, Both for Human Health and the Environment, European Environment Agency.

[24]. **Rasool N., Rampal R.K., and Manhas P. (2016).** Assessment of Noise Level Status in Institutional Areas of Samba Town, J&K, International Journal of Applied Research, **2**(7), pp. 887–889.

[25]. **Shukla A., Tandel B.N., and Kajaliya P.P. (2025).** Auditory and Mental Well-being of Teachers in Urban Noise Environment: A Partial Least Square Structural Equation Model Approach, Applied Acoustics, **230**, Article 110417.

[26]. **Shukla A., Tandel B.N., Parida M., and Patel H.R. (2025).** A Comprehensive Study on Impact of Noise Exposure on Roadside School Childrens' Cognitive Performance, Ergonomics, **68**(10), pp. 1746–1760.

[27]. **Shukla A., Tandel B.N., and Parida M. (2026).** Investigating Noise Exposure in Urban School Environments Using Noise Monitoring and Spatial-mapping Approach, Noise Mapping, **13**(1), Article 20250022.

[28]. **Singh N., and Davar S.C. (2004).** Noise Pollution—Sources, Effects and Control, Journal of Human Ecology, **16**(3), pp. 181–187.

[29]. **Talukdar M.K. (2001).** Noise Pollution and Its Control in the Textile Industry, Indian Journal of Fibre and Textile Research, **26**(1–2), pp. 44–49.

[30]. **Ucheje O.O., and Balafama I.W. (2025).** The Impact of Environmental Hazards on the Academic Performance of Public Secondary School Students, International Journal of Environment, Engineering and Education, **7**(1), pp. 13–24.

[31]. **Wokekoro E. (2020).** Public Awareness of the Impacts of Noise Pollution on Human Health, World Journal of Research and Review, **10**(6), pp. 27–32.

[32]. **World Health Organization. (1995).** Guidelines for Community Noise, Stockholm University and Karolinska Institute.

[33]. **Xiao J., Li X., and Zhang Z. (2016).** DALY-based Health Risk Assessment of Construction Noise in Beijing, China, International Journal of Environmental Research and Public Health, **13**, Article 1045.

[34]. **Ziauddin A., Bahel R.S., and Siddiqui N.A. (2007).** Noise Pollution Levels in the City of Dehradun, Ecology, Environment & Conservation, **13**(4), pp. 891–893.

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