

**Review Form 3**

Journal Name:	<b>Journal of Engineering Research and Reports</b>
Manuscript Number:	<b>Ms_JERR_121791</b>
Title of the Manuscript:	<b>Investigation of Noise Pollution from Different Petrol Generators in Nigeria</b>
Type of the Article	<b>Original Research Article</b>

**Review Form 3**

**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript provides valuable insights into the significant issue of noise pollution from petrol generators in Nigeria, which is a critical environmental and public health concern due to the country's reliance on these generators for power. By systematically investigating noise levels at varying distances from generators of different capacities and ages, the study offers important data that can inform both regulatory measures and technological solutions aimed at mitigating noise pollution. I appreciate the detailed methodological approach and the practical implications of the findings, which contribute to a better understanding of the impact of generator noise and highlight the need for alternative, quieter energy solutions. However, the manuscript could benefit from clearer articulation of the study's objectives and broader context to enhance its impact within the scientific community.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title of the article, "Investigation of Noise Pollution from Different Petrol Generators in Nigeria," is suitable. However, you might consider an alternative such as:  "Assessing Noise Pollution from Petrol Generators in Nigeria: An Analysis of Distance, Capacity, and Age Variables"	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract provides a general overview but could be more comprehensive by explicitly stating the study's objective, briefly describing the methodology, and highlighting the key findings and their implications. Consider starting with a clear statement of the study's purpose, such as investigating noise pollution from petrol generators in Nigeria. Include a brief mention of the experimental setup, such as the environmental conditions or controls. Highlight the most significant findings, such as the noise levels exceeding WHO limits and the trend of increasing noise with generator age. Finally, discuss the practical implications of these findings and suggest the need for noise mitigation strategies and alternative energy solutions. This will make the abstract more informative and engaging.	
Are subsections and structure of the manuscript appropriate?	The structure and subsections of the manuscript could be improved for clarity. The introduction is dense and would benefit from being broken into subsections to better outline the background and objectives. The methods section should provide more detailed subsections on the experimental setup and analysis techniques. Consider separating the results and discussion into distinct sections to clearly differentiate between data presentation and interpretation.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The manuscript demonstrates scientific robustness through its systematic approach to investigating noise pollution from petrol generators in Nigeria. The use of a digital sound level meter and two-way ANOVA for statistical analysis ensures that the data is accurately measured and interpreted, allowing for reliable conclusions about noise levels across different generator capacities and ages. The study's design, which involves varying distances and multiple generator types, provides a comprehensive understanding of how noise pollution varies in real-world scenarios. Additionally, the findings are contextualized with reference to World Health Organization noise limits, highlighting the relevance and importance of the research in addressing environmental health issues. Overall, the methodology and analysis are sound, making the study a valuable contribution to understanding noise pollution from generators.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :	Some references seem outdated or not directly relevant to the specific nuances of the study. Updating the references to include more recent studies and ensuring all cited works are directly pertinent to noise pollution from generators would enhance the credibility and relevance of the literature review.	

**Review Form 3**

<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language and English quality of the article are generally suitable for scholarly communication, but there are areas that need improvement for clarity and coherence.</p>	
<p><b>Optional/General</b> comments</p>	<p>Specific comments:</p> <ol style="list-style-type: none"> <li>1. The manuscript lacks precise details regarding the geographical location of the study within Nigeria. For enhanced reproducibility and contextual understanding, it is important to specify the city, region, or specific sites where the noise measurements were taken. Additionally, providing GPS coordinates for each measurement point would allow for a clearer spatial analysis and comparison with other studies in similar environments. The authors should please include these geographical details to strengthen the paper's applicability and integrity.</li> <li>2. Page 1. The citation numbering in your manuscript starts from [22], which may lead to confusion for readers and peer reviewers. The authors should please ensure that the reference numbering begins at [1] and continues sequentially.</li> <li>3. When attributing specific information to a source, it is important to include the author's name followed by the citation number. For instance, on Page 1, Line 12, the text "According to [5]," should be revised to "According to Babatunde et al. [5]."</li> <li>4. Page 1, Line 14-15, Page 2, Line 1-2: Alternative energy solutions, such as solar panels, are increasingly popular in Nigeria and do not contribute to noise pollution. While your manuscript correctly highlights the reliance on gasoline and diesel generators in Nigeria, it could be enriched by discussing the economic reasons behind this preference, notably the initial high costs associated with solar panels. This context is vital as it provides a fuller understanding of why, despite the environmental benefits of solar energy, petrol generators remain prevalent.</li> <li>5. The paragraph starting on Page 1, Line 1-15, Page 2, Line 1-33, contains an extensive range of topics that could benefit from clearer organization. The authors should consider dividing this content into several focused paragraphs: one addressing global energy requirements, another detailing Nigeria's specific energy resources and challenges, and a third discussing the impacts of generator use, including noise pollution. This reorganization will improve readability and allow readers to better grasp each distinct aspect of your discussion.</li> <li>6. For the definitions of 'sound' and 'noise' provided on Page 2, Lines 4-6 of your manuscript, it is essential to include citations from authoritative sources to substantiate these foundational concepts.</li> <li>7. In your manuscript, sound is defined twice on Page 2 with slightly different wording: once as "the pressure wave that results from alternating air pressure pulses of high and low pressure" (Lines 4-5), and later as "a product of an object vibrating in open air and emitting pressure waves into the air" (Lines 19-20, attributed to Amos et al. [1]). This redundancy could cause confusion for readers. It is advisable to consolidate these definitions into one clear, comprehensive explanation and ensure it is properly cited.</li> <li>8. The statement on Page 2, Lines 24-25, that "the level of sound that is healthy for the human ear ranges from 0 to about 140 dB," is misleading. The human ear can perceive sounds from 0 dB (the threshold of hearing) up to about 140 dB (the threshold of pain), but exposure to sounds above 85 dB can be harmful over time. Prolonged exposure to high decibel levels can lead to hearing damage. It is important to revise this statement to accurately reflect the safe listening levels and include appropriate references to support these claims.</li> <li>9. Page 2, Line 28-30: The statement regarding noise limits in Nigeria seems to be outdated or incorrect. The Nigerian Environmental Standards and Regulations Enforcement Agency (NESREA) is the authority that sets occupational and environmental noise limits in Nigeria. It is important to verify the current regulations from NESREA for accurate information on acceptable noise levels. Typically, continuous exposure to noise above 85 dB is considered harmful. The authors should please update this section to reflect the current standards set by NESREA and provide the correct citation.</li> <li>10. The passage on Page 3, Lines 13-18, contains a few issues that need clarification. First, the term "questioner" should be corrected to "questionnaire" as it refers to a survey tool used to collect data. Additionally, the aim of the study is not clearly articulated. The authors should consider revising the passage to clearly state the objective of your research and how it differs from previous studies. For example: "Most previous research on noise pollution from petrol generators focused on questionnaire responses from users and assessments of noise pollution from clustered generators [4; 23; 2]. This study aims to provide a more detailed analysis by investigating noise pollution at varying distances</li> </ol>	

**Review Form 3**

	<p>from five gasoline generators of different capacities and ages, representing both domestic and commercial uses in Nigeria."</p> <p>11. The literature review provides a broad context but lacks depth in discussing previous studies directly related to noise pollution from generators in similar environments. Including more detailed comparisons and discussing how this study extends the previous work would strengthen the introduction.</p> <p>12. Page 3, Section 2.1: The experimental setup is generally well-described, but the paper could benefit from more detailed information on the calibration and specifications of the digital sound level meter model UT353. Clarifying whether ambient noise levels were accounted for during measurements would improve the reliability of the presented data.</p> <p>13. Page 3, Section 3, Line 4: While the use of two-way ANOVA is appropriate, the paper should provide more information about the assumptions checked for this test, such as normality and homogeneity of variances. Additionally, the mention of an alpha value of 0.5 seems to be a typographical error (likely meant to be 0.05), which should be corrected to avoid confusion.</p> <p>14. Page 4-6: The results section is well-organized with figures and tables; however, it would be beneficial to include a discussion on the implications of the observed noise levels, particularly comparing them to international standards. Graphical representation of noise decay over distance and generator age in a more intuitive format, such as line graphs, could enhance comprehension.</p> <p>15. Page 6: The discussion about the impact of noise on human health and the environment is good but could be expanded. Specifically, a deeper analysis of how prolonged exposure to noise levels observed in this study could affect public health in urban versus rural settings in Nigeria would be pertinent.</p> <p>16. Page 8: While the study aims to address noise pollution, it lacks a robust section on mitigation strategies or recommendations for policymakers, generator manufacturers, or consumers. Adding a detailed section on potential noise reduction techniques and policies could make the paper more practical and impactful.</p> <p>17. Some references seem outdated or not directly relevant to the specific nuances of the study. Updating the references to include more recent studies and ensuring all cited works are directly pertinent to noise pollution from generators would enhance the credibility and relevance of the literature review.</p> <p>18. In your manuscript, reference [5] is formatted incorrectly according to Vancouver style guidelines. Here is the correct format: Babatunde OM, Ayegbusi CO, Babatunde DE, Oluseyi PO, Somefun TE. Electricity supply in Nigeria: Cost comparison between grid power tariff and fossil-powered generator. International Journal of Energy Economics and Policy. 2020;10(2):160-164. The authors should please revise this reference and ensure all others conform to this formatting guidelines.</p>	
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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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