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| Journal Name: | [**Asian Journal of Environment & Ecology**](https://journalajee.com/index.php/AJEE) |
| Manuscript Number: | **Ms\_AJEE\_126087** |
| Title of the Manuscript:  | **Efficiency of Coconut shell in an improved stove (Cocos nucifera) in Maiduguri, Nigeria** |
| Type of the Article | **Article** |

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| PART 1: Review Comments |
| Compulsory REVISION comments | Reviewer’s comment | Author’s Feedback *(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.** | The manuscript titled "Efficiency of Coconut Shell in an Improved Stove (Cocos nucifera) in Maiduguri, Nigeria" addresses a significant and timely issue regarding the efficient use of biomass as a renewable energy source, particularly considering increasing fossil fuel costs and environmental degradation. The focus on coconut shells as an alternative fuel is commendable and contributes to the literature on sustainable energy solutions.  |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | My suggestion, “Efficiency Analysis of Coconut Shell Biomass (Cocos nucifera) as Fuel in an Improved Stove in Maiduguri, Nigeria” |  |
| 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 effectively summarizes the problem, research focus, and few key findings. However, it would be stronger if some other findings such as efficiency comparisons, emission characteristics, and calorific values were provided. |  |
| **Are subsections and structure of the manuscript appropriate?** | Yes, the subsections and structure of the manuscript are appropriate.However, some areas could benefit from improved clarity to enhance readability.**Methodology:** 1. It would be helpful to include the specific type of improved stove used and its features.
2. The manuscript mentions using a two-way analysis of variance (ANOVA) but does not provide sufficient detail on how the statistical analysis was conducted.
3. It would be helpful to include efficiency comparisons, emission characteristics, and calorific value.

**Results and Discussion**1. Ensure that results are distinct and clearly referenced to avoid confusion.
2. It could be helpful to compare the results with existing literature on biomass efficiency, particularly highlighting how these findings align or differ from previous studies.
3. Adding visuals, such as graphs or diagrams, to illustrate key findings and enhance reader engagement, may be considered.

**Conclusion and Recommendations**Please consider specifying the environmental impact of large-scale coconut shell biomass utilization or the feasibility of implementing improved stoves in rural communities. |  |
| **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 appears scientifically robust as it applies an experimental approach to compare the efficiency of coconut shell biomass and neem wood in an improved stove, which aligns well with research standards in energy and environmental studies. By detailing methods such as precise weight measurements, ash content analysis, and time tracking for water boiling trials, the study demonstrates careful data collection and relevance to real-world biofuel usage. The inclusion of statistical analysis through ANOVA further supports the validity of the findings by quantifying differences between the fuel types. Additionally, the study’s focus on biomass utilization as an alternative to fossil fuels highlights its relevance to sustainable energy solutions. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | The references are somewhat outdated, with many from the early 2000s or before. Adding recent studies (from the past 5–10 years) on biomass utilization, improved stoves, and environmental impacts would strengthen the manuscript’s relevance. Recent sources from journals like *Renewable and Sustainable Energy Reviews* and *Biomass and Bioenergy* could provide insights into advancements in biofuel technology, emissions reduction, and economic feasibility, especially in tropical and West African contexts. |  |
| Minor REVISION commentsIs the language/English quality of the article suitable for scholarly communications? | Proofreading is needed to correct typographical and grammatical errors throughout the manuscript, which would enhance the professionalism of the presentation. Some of the comments provided in the manuscript may be implemented. |  |
| Optional/General comments | Overall, this manuscript presents a valuable contribution to the understanding of biomass utilization and offers insights into the potential of coconut shell as a renewable energy source. Addressing the comments above could further enhance its quality and impact. |  |

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| **PART 2:**  |
|  | **Reviewer’s comment** | **Author’s comment** *(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)* |
| **Are there ethical issues in this manuscript?**  | *(If yes, Kindly please write down the ethical issues here in details)* |  |

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| **Reviewer Details:** |
| Name: | **Manmatha K. Roul** |
| Department, University & Country | **GITA Autonomous College, India** |