



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Current Journal of Applied Science and Technology</a>  |
| Manuscript Number:       | Ms_CJAST_54680   |
| Title of the Manuscript: | Effect of Fuel Material Composition on Combustion Properties of Wood Chips from Smallhold Farm Plots in a Sudano-Sahelian Environment of Nigeria |
| Type of the Article      | Original Research Article  |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

**PART 1: Review Comments**

|                                     | 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)  |
|-------------------------------------|---|--|
| <b>Compulsory</b> REVISION comments | <p>The first few sentences of the Introduction are unclear. Are the authors arguing that climate change should lead to more use of fossil fuels (the so-called "clean cooking" position) or are you contending that fossil fuels are too expensive and thus one should optimize the use of woodfuels?</p> <p>Sentence 2 in paragraph 2 is too long and unclear.</p> <p>If the justification for this study is that low income people tend to use biomass (very true) then is the contribution of bark a critical issue? After all, low income biomass users are unlikely to take the bark off of stems. If you look at the improved cookstove adoption literature, you will see that many stoves are not popular because they require chopping wood into small pieces. Taking bark off is much harder without specialty tools which leaves me asking, is this study really of any practical value to low income biomass users? Also, would it not be better to study fresh or wet wood vs. dry wood? In other words, from a practical point-of-view, if we want to reduce the harm of burning biomass, would it not be better just to dry the wood rather than trying to remove bark?</p> <p>The study seems reasonable in terms of the framing question but that frame seems of little practical value at household level.</p> | <p>The opening sentences is not canvassing for the adoption of fossil fuel for energy generation. Rather, it emphasised that though, global policy debate on energy seems to favour energy from fossil, we posited that energy from biomass material cannot be ignored based on its availability, renewability and affordability. And also, the fact that it contributes less to climate change compared to energy production from fossil fuel.</p> <p>The second sentence in paragraph 2 have been restructured.</p> <p>The mention of the low income people dependence on wood for domestic energy needs is just to show the level of pressure on wood for energy and the need to ensure efficiency in utilization. However, idea of this work is centred on the use of <b>wood chips</b> for heat generation, not necessarily wood in form of firewood. To ensure homogeneity of the chip feedstock and reduction in sintering tendencies wood billets are often debarked prior to chipping. But, since the combustion properties varies between trees, among species and the tree component parts, it is on this basis that this study investigates the influence of fuel material composition on combustion properties of the wood chips obtained from the selected tree species. This was achieved by varying the share of bark included in the chips.</p> |
| Minor REVISION comments             |   |  |
| Optional/General comments           |   |  |

**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) |   |