TABLE FOR COMMENTS

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| **#** | **Para No./ Annex / Figure / Table** | **Type of comment**  **ge** = general  **te** = technical **ed** = editorial | **Comment**  **(including justification for change)** | **Proposed change**  **(including proposed text)** | **Assessment of comment**  **(*to be completed by UNFCCC secretariat*)** |
| 1. | Section 2.6 | Te | Only emission due to changes in the above ground is considered, while literature suggests significant influence of the below ground biomass.  (Forfora et al., 2024) states that from a cradle-to-farm gate perspective, the global warming potential for biomass production spans 12–245 kg CO2eq per oven-dry ton factoring only anthropogenic emissions. However, when accounting for SOC sequestration, the range shifts to −170 to 228 kg CO2eq per ODt, highlighting the potential role of biomass to act as carbon sink systems  This shows there could be substantial emissions from the below ground biomass – however their emissions due to decay and other incidents could not be as direct as the use and combustion of above ground biomass (e.g. leaching of biomass could cause methane emissions). | While including the carbon pools would make an already complicated model much more complex, but  since MoFuSS is a dynamic module overtime, may be good to consider a literature review and provide a snapshot of the different systemic effect including, if possible, of the sequestration – and give an indication of the net effect due to wood fuel use for cooking. |  |
| 2. | Para 37 | Te | Stacking is understood to influence the final estimates of firewood consumption significantly and therefore the fNRB estimates. | We previously suggested modelling scenarios for countries with reliable stove and fuel stacking data and compare the differences. If inclusion of stacking is shown to have significant effect, then the methodology adopted should allow project developers to include evidence on stacking in their project areas, and then adjust the fNRB by an appropriate factor.  Something similar to the Appendix 2 on why deforestation module was not used e.g. Ghana. |  |
| 3 | Para 39 | Te | Limited data on the non-residential demand, and also highly varying across the four countries. It may be that in some of the countries, non-residential demand may be higher compared to residential demand e.g. small islands, tourist destinations.  Also, insufficient data on use of biomass for the non-energy purposes – that are sourced from the tree plantation areas which are mostly protected. | Given that there is need for robust data and accurate maps on demand and use of woodfuel/wood for non-residential as well as for non-energy purposes, carry out data collection for some sample locations and countries. |  |
| 4 | Table 4 | Ge | Are the woodfuel values used for assessment correct, for South Asia and SSA, its 0.4 ODT/person-year which is different to Table 3 based on global datasets from CDM projects and UN/DHS value. Is the UN value oven dry weight? | Estimate with the corrected values if this is not a typo. |  |
| 5 | Table 4 | Te | Should we differentiate the quantity of fuelwood and charcoal consumption between urban and rural residential and non-residential entities. Will this differentiation influence the results, in addition to estimating urban fNRB and assuming that urban consumption being fulfilled by the high fNRB rural areas. | May be good to make changes if these considerations are significant. |  |
| 6 | Para 68 | Te | Prune factor – the pattern and probability of woodfuel harvesting may be totally random or more managed depending on the type of forests, local management practices – for regional it is 100% assuming all pixels are visited at least once over the period whereas for subnational it is less than 100%.  Though its influence is comparatively less - looks like a high level of assumptions which may not be true and contradicting previous understanding of manged harvesting. | Make changes as required based on robust evidence. |  |
| 7 | Para 70 | Te | Urban fNRB is estimated by assuming urban woodfuels originate from high-fNRB administrative units in rural areas and define urban fNRB in each country as the average of the upper 50% percentile of all rural administrative units.  This assumption on fulfilment from the high-fNRB units in rural areas is not always true. | Carry out data collection for better evidence. |  |
| 8 | Para 103, 104, 105 and 106 | Te | With regards to larger differences between Oct 2023 and current release – one of the principal parameters is the trade but with opposite results – what was the evidence for isolating both islands of São Tomé and Príncipe and Comoros from the SSA and for including Djibouti clustering with Ethiopia, and Somalia.  In the case of Kenya, again changes in the flow of woodfuel reverses based on a study and anecdotal evidence – this sounds not very robust.  Details on these would be useful otherwise it just looks that assumptions are being made at random and are not evidential. | Carry out data collection for better evidence. |  |
| **Appendix 3 Responses to public comments** | | | | | |
| 9 | Para 21 | Te | Other comments suggested that we adjust the spatial distribution of urban areas by coding rural areas as urban when they pass the “urban threshold” of population density. While there is a certain logic to this, we already account for growth in the size of the urban population by using UN urbanization forecasts. If we also allowed rural areas to transition into urban, then we would be overestimating the total urban population.  As per the UN urbanisation forecasts and WHO forecasts on urban rural primary fuel use, is only the population changing or the urban and rural areas also changing spatially? | In reality, spatially, the rural areas are constantly changing to urban areas based not only on the population but also the other parameters, manly the road and other infrastructure e.g. in Nepal rural councils are converted to Urban councils/metropolis periodically – however, there is not a clear timeline for doing this. |  |
| 10 | Para 33 | Te | It is possible to carry out separate analyses for wood and charcoal, while separating them into different models would result in lower fNRB estimates for both fuel pathways. | An example on this similar to Appendix 2 on why deforestation module was not used e.g. Ghana could be useful to underline why separating out is not beneficial. |  |
| 11 | Para 34 | Te | MoFuSS assesses fNRB as the joint impact of fuelwood and charcoal harvesting together, which is additive.  However, non-renewability due to charcoal use is expected to be higher because its production is a high biomass resource practise– provided the source of charcoal production can be identified non-additively. | Is it possible to estimate the ratio of impacts due to firewood and charcoal on the average fNRB. |  |
| **Generic Comment/s** | | | | | |
| 12 |  | Ge | Several incidences of lack of data and specific input parameters suggest taking it to the project and country level for use with updated and/or local data.  While development of a web-based application (Appendix 4.2) would allow including local and more updated data across different activity levels - guidelines and trainings on its use for project developers and national entities (e.g. DNA) and on specific parameters (e.g. Appendix 4.1 on stacking of fuel and stoves) would be useful. | In this, an important question is can this create some kind of a perverse incentive on the part of the proponents to carry out quick studies or cherry pick studies e.g. on trade to manipulate the values - similar to the example mentioned regarding Uganda (Section 8.1, Para 42).  This then would bring into question what parameters needs to be checked, how/when, including guidelines for the DOEs/VVBs, with clear punitive and non-punitive measures – for all the stakeholders involved. |  |