Modern Cooking for Healthy Forests in Malawi

A Project co- funded by USAID and UKaid

Arwa House – First Floor
P.O Box B409, LILONGWE

08 November 2023

RE: Call for public input on the "Info note: Default values for fNRB"

My name is Ramzy Kanaan, and I am writing to provide feedback on the "info Note: Default values for fNRB" which was posted for public comment last month. By way of introduction, I am writing from Malawi, where I have been working with the Government of Malawi for the past nine years, through funding from USAID and UKaid, to collect and analyze data to inform approaches to address deforestation and forest degradation from supply, demand and regulation. This includes investments to support introduction/adoption of cleaner cooking solutions.

I have been, and I remain a strong proponent of cleaner cooking. This said, as someone keenly committed to working toward achievement of the 1.5C target, and as someone actively involved in working to measure and monitor Malawi's forests, over time I have become quite critical of many of the cleaner cooking focused carbon projects operating in Malawi. My criticisms can be grouped into three general categories:

1. fNRB;
2. ICS efficiency—lab versus HH; and
3. ICS utilization—both the percent utilization, and stove lifespan/crediting period.

Each one in isolation has contributed to over-estimating emission reductions from cleaner cooking and thus, over-crediting—and taken together these structural/standard/methodological weaknesses have multiplied these errors, resulting in enormous over crediting. This said, I am pleased to see the UNFCCC, and the CCA, taking a comprehensive approach to address these weaknesses, and I am optimistic that the output of these efforts will help to increase the integrity of the VCM.

I am only providing general comments, focused on what I believe to be the two most significant potential impacts resulting from shortcomings in fNRB methodology and output (e.g., one indiscriminate/average fNRB for the country)—which are:

- Ineffective and indiscriminate targeting of interventions (which miss the mark on deforestation and degradation)
- Effectively limiting Malawi's carbon project cleaner cooking options to lower cost improved firewood cookstoves

Brief context:

Malawi's energy use is dominated by biomass (predominantly wood and charcoal). Biomass accounted for 86% of all final use in 2020, compared to 10% for oil products, 3% for electricity and 1% for coal. For households, the importance of biomass is even starker: it accounts for nearly all (99%) energy used in homes, across the whole of the country (Government of Malawi, 2023).

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As indicated in the above extract from the Government of Malawi's Digest of Malawi Energy Statistics, in Malawi, almost every household relies on woodfuels to meet their cooking and heating needs. In rural areas almost 100% of households use firewood as their sole source of cooking/heating energy (and this is almost entirely sourced through local collection), while more than 75% of urban households purchase/use charcoal as their primary source of cooking/heating energy. In addition, the large majority of these households use inefficient baseline cooking technologies (e.g., a three-stone fire for firewood; and, a Malawian Jiko for charcoal) in meeting their daily cooking needs.

While these fuels are sourced from the same forested landscapes, the manner in which they are sourced, and their respective impacts on these forested landscapes (in both the short-term and the medium-term) are very, very different:

- Household firewood collection: While there is some variation in rural household collection of firewood—our work documents that in most parts of the country firewood assortments are generally dominated by smaller gauge firewood—collected through pruning, trimming and culling regenerants from forestland and cropland.
- Charcoal production: Without exception, in Malawi the entire tree is cut for charcoal production—and typically (today) charcoal producers will entirely clear an area of trees when producing charcoal.

The impacts (both immediate, and long-term) of these different woodfuel harvesting practices on Malawi's forested landscapes are vastly different. In large parts of Malawi, firewood harvesting levels are well below the annual biomass gain (mean annual increment). This is markedly different from charcoal production, which results immediately in a complete loss of AGB (and in some cases where tree roots are being dug and converted to charcoal—a loss of BGB). It is this progressive thinning and clearing of forests for charcoal that is driving deforestation and degradation across the country.

The way I understand the methodology, the resulting fNRB considers all wood uses, assesses the extent to which use is "renewable/nonrenewable" and churns out an aggregate fNRB value for the country—in the case of Malawi, 47%. The impacts of this single aggregated fNRB result are multiple, and include:

Comments:

Ineffective and indiscriminate targeting of interventions (missing the mark on deforestation and degradation): The evidence (data/analyses) from Malawi is clear—charcoal production and consumption are far more impactful on Malawi's forested landscapes than firewood harvesting (both in terms of the impact in real-time, and the cascading impacts over time). However, by virtue of having an aggregate fNRB (as opposed to woodfuel specific fNRBs) the methodology essentially results in an "average" fNRB across woodfuels (and other wood uses) that over-estimates the fNRB for firewood (i.e. makes firewood harvest appear less sustainable than it actually is) and under-estimates the fNRB for charcoal (i.e. makes charcoal appear more sustainable than it actually is). This averaging results in incentives for project developers that are poorly aligned with the greatest need from a climate perspective. Because firewood cookstoves for the rural market are a cheaper technology to promote and distribute than are improved charcoal cookstoves, the large majority of ICS carbon project developers operating in Malawi have made the logical business decision to focus on the distribution of the lower cost improved

firewood cookstoves to rural households because the averaged fNRB effectively means that reducing firewood usage is credited similarly to reducing charcoal usage (even when, in actual fact, firewood is far more likely to be renewable. This decision logically maximizes RoI for project developers. Unfortunately, these interventions are nowhere near as impactful (in terms of the documented impacts on deforestation and degradation/emission reductions) as efforts to target charcoal consumption.

Effectively limiting Malawi's carbon project cleaner cooking options to lower cost improved firewood cookstoves: The single, "averaged" fNRB result (across any area/jurisdiction) greatly reduces the rationale/financial incentive to focus on more expensive (but more impactful) cleaner/clean cooking solutions. In addition, this also effectively rules out the use of "smart-tech" (e.g., metering) which would have likely increased the credibility of offsets. These impacts further reinforce Malawi's reliance on biomass energy, and essentially limit the technologies to lower-cost improved firewood cookstoves that will still rely on estimates (e.g., use, lifespan, etc.).

As a result of the concerns described above, I strongly suggest that fNRB default values either:

1. fully disaggregate between firewood and charcoal to ensure that the proper incentives are in place for project developers to invest in the most impactful cleaner cooking technologies; or,
2. develop a way for the model/output to recognize the extent to which a given woodfuel use, within a specified jurisdiction is non-renewable.

As an additional item, I am concerned that providing default values for all countries at national, 1st administrative, and 2nd administrative levels may allow project developers to strategically choose which default value to use (i.e. to use the national fNRB when that is higher than the relevant lower administrative division, or to use the lower administrative division default if that is higher). I would suggest having default fNRB values at only one administrative level – presumably the lowest level that can be modeled with confidence – to avoid the incentive for developers to pick and choose the most advantageous administrative level.

In closing, let me acknowledge and appreciate the work of the team—this was clearly an enormous undertaking. This was/is a massive undertaking, and I realize there is no one "result" that will make everyone happy. So let me thank you for this period of public consultation—which presents a great opportunity to try and get this right (or at least "better").

Sincerely,

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