



9 Nov 2023

**Name of submitter:** Mattias Ohlson

**Affiliated organization of the submitter:** Emerging Cooking Solutions (trading as SupaMoto)

**Contact email of submitter:** mattias@emerging.se

## Re: Call for public input on the “Info note: Default values for fNRB”

### Background

I'm an entrepreneur living and working in Africa since 2013 with distribution of advanced biomass cooking solutions. The company that I have co-founded, Emerging Cooking Solutions has since then been pioneering micro-gasification with wood pellets as fuel.

We have developed an IoT platform, with thousands of stoves connected to internet in real time. All our pellet sales are mapped to individual customers through mobile money transaction records. This forms the basis for an accurate estimate of usage, through the Gold Standard Metered and Measured Methodology.

We have worked closely with “internet of impact” company [ixo](#) to develop a digital-MRV based [platform](#) for validation, issuance and accounting for carbon credits.

I've also been involved as a reviewer of the Berkely paper "Pervasive over-crediting from cookstoves offset methodologies".

I firstly want to take this chance to thank and congratulate the team working on this, which I believe has been under a lot of time pressure, with limited resources and limited data in some areas.

### Our position

We are supporting the adoption of the draft default values for Sub-Saharan Africa for fNRB. They currently represent the best-available science in this space, and we therefore recommend they are adopted as soon as possible as the baseline for both new and existing projects.

At the same time, it is paramount that more research be done, and the values can be further revised since, in our view, there are several sources of inaccuracies, and more quality data is needed. However, that should not be a reason to delay the correction of current fNRB values.

We are concerned that it seems that registries will apply different fNRB values to potentially identical projects, based on when the project was registered. While this may be a hard problem to solve given existing contractual relationship, if we don't solve it, it will set “best available science” aside and thereby undermine the integrity of the sector. It will also create a vastly uneven playing field.

### Grouping of different uses into one fNRB value

In my experience, living in Zambia for 10 years, less from an academic perspective but more from own observation, firewood is collected from wood that is either dead or from trees felled for other purposes (such as land clearing). Trees are generally not cut down for firewood.

For the production of charcoal on the other hand: Select trees – typically large, old, hardwood trees, are cut down specifically for the purpose of making charcoal (see picture for evidence). Sometimes, areas are entirely cleared for making charcoal, other times, certain species are cut down and other trees left.

**Charcoal use, it seems, has a vastly different effect on deforestation than firewood use.** See picture of mature tree in Miombo forest. If the tree in the picture is cut down to make charcoal, would not the carbon impact be massive at that location? Is taking a wider landscape-wide approach, which may be appropriate for general firewood use, really the best method for estimating effect of charcoal production?

**To accurately account for the true effects, perhaps two different values of fNRB would be needed, for firewood and charcoal respectively, or a conversion factor.**

#### **The problem of attribution**

It is likely that forestry carbon projects will cover large areas in the future and overlap greatly with clean cooking projects. In my understanding, there is no coordination between projects using different methodologies. For example: if there is a Verra REDD+ project covering the same area as a Gold Standard cooking project, they will likely both affect the carbon stock in the area. How to attribute the actual savings between different projects using different methodologies?

This example shows how complex the entire concept of fNRB is. There are complex dependencies and lack of data to model these. In the future, we need more resources and better data to further refine the fNRB values, given how consequential for clean cooking programs and for carbon credit buyer's trust in the quality of the market.



We may even need more inclusive models, for example to account for the difference between charcoal and firewood, and existence of REDD+ projects. Have for example new causal models focusing on counterfactuals been considered for future revisions (I'm referring to the three levels of causation as in "the Book of Why – the New Science of Cause and Effect")?

Given its shortcomings, treating current fNRB values as fixed for a long time into the future, and as pure science would be problematic. fNRB values needs to be updated regularly as "best available science" improves. Relevant actors in the carbon eco system must find a way to accommodate such iterative changes ongoingly.

Wish everyone involved best of luck with this important work.

Sincerely,

*Mattias Ohlson*

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Mattias Ohlson  
CEO, Emerging Cooking Solutions Group  
+46 706 007 567  
+260 953 282 484 (WhatsApp)  
mattias@emerging.se

