Response to the new f_{NRB} values by Modelling Fuelwood Savings Scenarios (MoFuSS)

We would like to raise our concerns regarding the recent updates to the default fNRB values, whether published by MoFuSS or currently under discussion by the Methodology Panel. The fNRB (fraction of non-renewable biomass) plays a vital role in determining whether harvested wood is classified as renewable or non-renewable. In regions where forest or fuelwood growth exceeds the rate of harvesting, the biomass is considered renewable due to a surplus. In contrast, when wood harvesting outpaces forest growth, the resulting biomass is categorized as non-renewable.

While we appreciate the intent behind standardizing fNRB (fraction of non-renewable biomass) values for calculating emission reductions in projects aimed at reducing firewood consumption—particularly improved cookstove initiatives—we believe that several critical data-related concerns must be urgently addressed before enforcing these default values on project developers. We would like to specifically highlight the situation in India and the implications of applying these values across its diverse states.

The proposed national default fNRB value of 7% for India, as derived from the MOFuSS model, appears significantly misaligned with observed patterns of deforestation and the widespread reliance on wood fuel across the country. This value implies that only 7% of the harvested wood is considered non-renewable, suggesting that 93% has no adverse environmental impact—an assumption that contradicts recent data. For instance, in 2023 alone, India experienced a loss of 171,000 hectares of forest land. Such deforestation cannot be overlooked or deemed inconsequential, as the current default value implies. This mismatch reflects a lack of comprehensive, ground-level data that adequately captures regional differences in biomass availability, forest dependency, and wood fuel consumption.

India's vast geographical and ecological diversity demands region-specific assessments. Forest cover, forest loss, and biomass use vary significantly from state to state. For example, the Forest Survey of India (2023) highlights consistent forest loss in states such as Madhya Pradesh, Karnataka, Ladakh, and Nagaland. Conversely, in arid states, government-led afforestation efforts have led to some gains in forest cover. However, when reviewing the state-wise default fNRB values, the assigned figures often appear inconsistent or illogical.

Take Rajasthan, a desert state with sparse forest resources, where the proposed fNRB is 0%. Despite limited biomass availability and ongoing efforts to increase green cover, NFHS-5 data indicates that approximately 64% of rural households still rely on wood for cooking. A 0%

fNRB here implies an unrealistic assumption—that all harvested wood is renewable—raising concerns about potential overexploitation.

On the other hand, Assam—a state with abundant biomass—has been assigned a much higher default fNRB value of 24%, even though it has a comparable percentage of households using wood for cooking. This inverse relationship between biomass availability and assigned fNRB suggests flaws in the methodology used to assess wood fuel demand and classify forest types, such as distinguishing between protected forests and those accessible for harvesting.

Similar inconsistencies are evident in states like Punjab and Uttar Pradesh, where forest cover is minimal. Punjab has been assigned an fNRB of just 1%, and Uttar Pradesh 2%, despite their predominantly agricultural landscapes and limited forest resources. These discrepancies highlight the inadequacy of a uniform, top-down approach to determining fNRB values and the need for a more nuanced, data-driven methodology that reflects actual field conditions.

The following table illustrates this disparity, showing selected states along with their size, forest cover, forest loss, percentage of households using wood for cooking, and the proposed fNRB values:

S. No	State	Total Area (in sq kms)	Forest Area (in sq kms)	Deforestation rate	% Reliance on wood fuel	Proposed fNRB
01	Madhya Pradesh	308,252	77,493	4.32k ha (from 2001 to 2023)	53.4%	4%
02	Maharashtra	307,713	50,798	10.9kha (from 2001 to 2023)	14.9%	4%
03	Assam	78,438	28,312	119kha (from 2001 to 2023)	54%	24%
04	Punjab	50,362	1,847	239 ha (from 2001 to 2023)	15%	1%

05	Uttar Pradesh	240,928	14,818	678 ha (from 2001 to 2023)	36.4%	2%

As evident from the table, states with higher reliance on wood fuel and significant deforestation rates are assigned very low f_{NRB} values, while states with substantial tree cover receive comparatively high f_{NRB} values.

The current methodology MoFuSS for determining f_{NRB} values appears to have inherent limitations that not only lead to inaccurate parameter estimations but also risk undermining the efforts to support marginal communities in mitigating climate change. These updates may inadvertently stop investment in projects promoting clean cooking solutions by reducing the potential for carbon credits. Consequently, the proposed changes could inadvertently encourage the continued use of inefficient traditional cookstoves with high wood consumption.

We would like to emphasize the significant impact these discrepancies have on funding for the cookstove sector. The current f_{NRB} system, which categorizes biomass as either renewable or non-renewable, unnecessarily complicates the allocation of resources for cookstove projects. This focus on biomass classification diverts attention from the real goal of reducing emissions and improving efficiency. By eliminating the f_{NRB} term altogether, we can streamline funding and direct more resources toward technologies that actually reduce fuelwood consumption and lower carbon emissions. The priority should be on supporting clean cooking solutions that contribute directly to emission reductions, rather than getting caught in the complexities of biomass differentiation.

Finally, we advocate for a paradigm shift in how cookstove projects are perceived, suggesting they should be recognized not only as emission reduction initiatives but also as significant carbon removal projects. Reframing these efforts in this context could unlock new avenues for funding and enable them to contribute more effectively to the global imperative of limiting temperature rise to below 1.5°C.