



DRIVING CLIMATE ACTIONS

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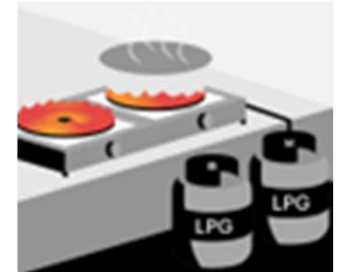
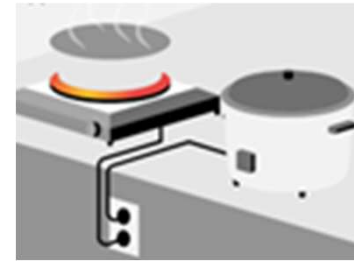
GCC Methodology for Clean Cooking Transitions using DMRV Protocol

For ASCENT CARBON PROGRAM

Sanjeev Kumar

Project Activities

Transitioning from traditional fuels (biomass or fossil fuel) cookstoves to ICS

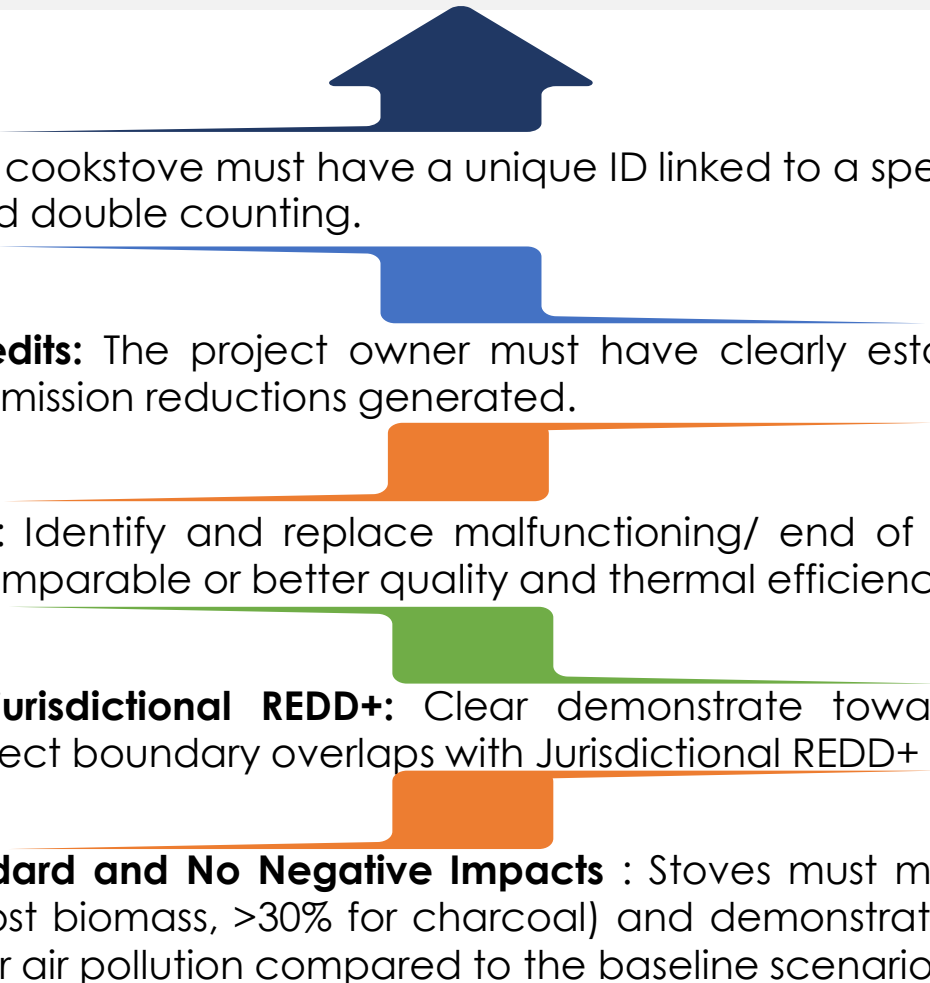


**Improved
cookstoves using
renewable / non-
renewable biomass**

**Solar based
cooking devices**

**Electric powered
cooking devices**

**LPG-based
cooking
devices**

- 
- 01 Unique Device ID** : Every cookstove must have a unique ID linked to a specific user and tracked in a digital database to avoid double counting.
 - 02 Clear Ownership of Credits**: The project owner must have clearly established and documented ownership rights to the emission reductions generated.
 - 03 Continuity of Operation**: Identify and replace malfunctioning/ end of life cooking device with a technology option of comparable or better quality and thermal efficiency.
 - 04 No Overlapping with jurisdictional REDD+**: Clear demonstrate towards avoidance of double issuance risk in case project boundary overlaps with Jurisdictional REDD+ programme
 - 05 Thermal efficiency standard and No Negative Impacts** : Stoves must meet minimum performance levels (e.g., >25% for most biomass, >30% for charcoal) and demonstrate that the new technology does not increase indoor air pollution compared to the baseline scenario.

Robust Baseline aligned with Article 6.4 Standard

1

Business-as-usual scenario

1. Baseline survey and cross-check of finding against published literature
2. Assessment against legal and policy context
3. Adjusting for changes in baseline periodically – Annualized usage survey

2

Baseline assessment and downward adjustment

1. Downward adjustment in baseline required if material discrepancies (10% variation) is assessed in baseline and project scenario, in terms of fuel usage and household size
2. Assessment of downward adjustment in the calendar year of the start date of the crediting period and annual reduction of 1% relative to the final adjusted baseline of y1.

3

Suppressed demand baseline

Total fuel consumption for cooking and heating up to 2.1 GJ /person/year and other suppressed demand conditions in the methodology.

(Default baseline of 0.0012 TJ /(person- year) for firewood and 0.00075 TJ /(person-year) for charcoal

Baseline Survey

1. Digital/app-based
2. Baseline data/ information transmitted directly to cloud server on real time basis
3. Comprehensive audit trail including verification of the ID of the authorized representative, and geo-tagged photographs of the survey
4. Assessment of survey data by carbon engine

Additionality Assessment aligned with Article 6.4 Std

Multi-step analysis

STEP 1. Demonstration of prior consideration

STEP 2. Regulatory Analysis

Step 3 – Lock in risk

Step 4 – Investment analysis /Barrier Analysis

Step 5- Common Practice analysis (not a common practice if penetration below 30%)

Monitoring Schedule – CTEC Project

Activity	Prior to Validation	Prior to first Verification	Annual	Every Monitoring period (two years max)
Emission reduction estimation	×			
Baseline Studies				
Baseline scenario survey	×			
Continuous measurement + KPT approach	×			
Continuous measurement + CCT approach	×			
Project Studies				
Usage survey			×	
Continuous measurement + KPT approach		×		×
Continuous measurement + CCT approach	×			×
Ongoing monitoring tasks				
Maintenance of total sales and service records, and project databases	Continuous			

Monitoring Schedule – Non CTEC Projects

Activity	Prior to Validation	Prior to first Verification	Annual	Every Monitoring period (two years max)
Emission reduction estimation	×			
Baseline Studies				
Baseline scenario survey	×			
Baseline energy consumption measurement (from KPTs) (required for all projects not using global default value)	×			
Project Studies				
Usage survey			×	
Project energy consumption measurement (from KPTs)		×		×
Ongoing monitoring tasks				
Maintenance of total sales and service records, and project databases	Continuous			



Digital Monitoring

Integration: integrating digital monitoring, reporting, and verification (DMRV) protocol

Software Solutions: automation of data capture with provision for data validation

Data Management: immutability of collected data, and data storage

Auto estimation: of emission reductions using predefined algorithms

Transparent Reporting: strengthen the credibility of emission reduction claims



Key Features

- Full integration of DMRV for monitoring, automation, and data transparency.
- Robust baseline and additionality assessments aligned with Article 6.4 Standard.
- Accurate quantification of fuel displacement and emission reductions, minimizing over-crediting.
- Scalable programmatic design, suitable for large interventions across multiple regions.
- Strong safeguards for data integrity and verification, ensuring confidence in credits.



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● **THANK YOU**

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Pervasive over crediting

- 1 Methodology allowed fnrb to be estimated based on CDM Tool 30.
- 2 Approach for estimation of baseline fuelwood / charcoal consumption based on baseline survey or use of default value
- 3 Adjustment to account for continued use of pre-project device (stove stacking)
- 4 Constant baseline throughout the crediting period

How new methodology address the issue

1. fNRB from A6.4 fNRB tool.
2. Stringent default value of firewood and charcoal consumption. In case the baseline energy consumption is calculated based on monitored data, the same is subjected to “caps” (i.e. value of monitored data cannot be higher than a given value) and “flags” (value of the monitored data is subjected to additional justification towards ensuring the robustness).
3. The methodology introduces CTEC (includes continuous monitoring of energy consumption across all project device using metering solution or fuel purchase receipt + DMRV) and non-CTEC (includes sample-based field-testing protocol with/ without stove use monitor/SUM +DMRV) approach for accounting of project energy consumption and subsequent assessment of baseline energy consumption. Hawthorne Effect adjustment factor, either 75% when KPTs and usage surveys are used without SUMs, or as calculated from the equation provided in the methodology where KPTs and usage surveys are complemented by SUMs measurements.
4. The methodology is designed for accounting of periodic downward adjustment of the baseline and adjusting to baseline in case of material discrepancy (of more than 10% absolute difference) in the value of household size and primary fuel wood usage between the values documented during the baseline scenario study and those reported by actual project households during the first project usage survey.