



**Verified Carbon  
Standard**

# CLEANER COOKING SOLUTIONS PROGRAM



Document Prepared by

C-Quest Capital SGT Asia Stoves Private Limited

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# 1 PROJECT DETAILS

## 1.1 Summary Description of the Implementation Status of the Project

**A summary description of the implementation status of the technologies/ measures (e.g., plant, equipment, process, or management or conservation measure) included in the project.**

The project involves distribution of fuel-efficient improved cookstoves (ICS) in Cambodia. The baseline scenario is the continued use of non-renewable wood fuel by the target population to meet similar thermal energy needs as provided by project cookstoves in absence of project activity.

The ICS disseminated in a household through this project will enable the end user to switch to renewable biomass or an ICS as an energy efficiency measure, but not both. Through this project, approximately 100,000 ICS are envisaged to be distributed under energy efficiency measure and 25,000 ICS are envisaged to be distributed to enable fuel switch. The project will be implemented in phases.

Each household will receive up to two ICS. Other ICS models, for example SSM-S32-X may be added based on the requirement of end users.

However, under this first monitoring period, the ICS have been distributed to end users as an energy efficient measure only. No ICS has been distributed to end users to enable them to switch from non-renewable biomass to renewable biomass.

At the time of validation, no ICS was distributed under the grouped project. However, till the end of second monitoring period, a total of 67,146 ICS (32,112 Kuniokoa , 33,573 Naga Cookstove and 1461 SSM-S32-X) have been distributed under the grouped project. The details of instances added for each monitoring period is depicted in the Table 1 below.

**The relevant implementation dates (e.g., dates of construction, commissioning, and continued operation periods).**

1 <sup>st</sup> Monitoring Period	21-February-2022 to 30-June-2022
Date of first ICS distributed	21-February-2022
Last date of ICS distribution under MP 1	30-June-2022
No. of instances /ICS distributed during 1 <sup>st</sup> MP	21,726 (10,863 Naga - Cambodia Cookstove and 10,863 Kuniokoa Stove)

Period of first monitoring survey Survey dates for parameters $N_{y,ij}$ and $B_{y=1,new,i, survey}$	3-September-2022 to 14-October-2022
2 <sup>nd</sup> Monitoring Period	1-July-2022 to 31-December-2022
Last date of ICS distribution under MP 2	27-December-2022
No. of instances /ICS distributed till 2 <sup>nd</sup> MP	67,146 ICS (32,112 Kuniokoa, 33,573 Naga Cookstove and 1461 SSM-S32-X)
Period of second monitoring survey Survey dates for parameters $N_{y,ij}$ and $B_{y=1,new,i, survey}$	27-February-2023 to 14-March-2023

Table 1: Implementation dates for VCS 2409

All the data recorded during stove registration and monitoring survey process was captured via handheld digital devices (smart phones and/or tablets). The information collected is then transferred to a centralized online project database.

**The total GHG emission reductions or removals generated in this monitoring period.**

The project results in a total emission reduction of 126,239 tCO<sub>2</sub>e over the monitoring period of 1-July-2022 to 31-December-2022.

Audit Type	Period	Program	VVB Name	Number of years
Validation	(21-February-2022 to 20-February-2032)	VCS	Carbon Check (India) Private Limited	10 years (fixed crediting period)
Verification	21-February-2022 to 30-June-2022	VCS	Carbon Check (India) Private Limited	0 year, 4 Months, 08 days
Verification	1-July-2022 to 31-December-2022	VCS	EcoLance Pvt. Ltd.	0 year, 6 Months, 0 days
Total	-	-	-	0 year, 10 Months, 8 days

## 1.2 Sectoral Scope and Project Type

The project is categorised under 2 sectoral scopes as below:

- a) 01: Energy industries (renewable - / non-renewable sources)
- b) 03: Energy demand

The project is a grouped project.

## 1.3 Project Proponent

Organization name	C-Quest Capital SGT Asia Stoves Private Limited
Contact person	Ken Newcombe
Title	Director
Address	38 Beach Road #29-11, South Beach Tower, Singapore 189767.
Telephone	+1-202 247-7976
Email	<a href="mailto:cqc-operations@cquestcapital.com">cqc-operations@cquestcapital.com</a>

## 1.4 Other Entities Involved in the Project

At the present, C-Quest Capital SGT Asia Stoves Private Limited is the sole entity involved in the project.

## 1.5 Project Start Date

21-February-2022 (Date of distribution of 1<sup>st</sup> ICS under this grouped project activity).

## 1.6 Project Crediting Period

21-February-2022 to 20-February-2032, ten years, fixed crediting period for projects belonging to both scopes.

## 1.7 Project Location

The project location will be the geographical boundary of Republic of Cambodia with coordinates 12°33'56.4" N latitude and 104°59.458' E longitude.<sup>1</sup>

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<sup>1</sup> <https://www.geodatos.net/en/coordinates/cambodia>

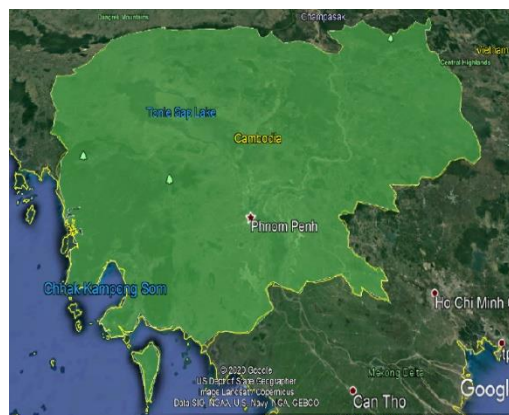

Figure 1: Cambodia map<sup>2</sup>


Figure 2: Map of project area

Cambodia is divided into 25 provinces. To facilitate the management, implementation, monitoring and sampling stages of the project, the project proponent divides the project boundary into 4 zones.

No.	Zones	Provinces
1	North-Western	Banteay Meanchey, Oddar Meanchey, Preah Vihear, Siem Reap
2	Eastern	Kratie, Monduliri, Ratanakiri, Stung Treng
3	Mekong Lowlands	Kampong Cham, Kampong Chhnang, Kampong Thom, Kandal, Prey Veng, Svay Rieng, Phnom Penh, Takeo and. Tboung Khmum
4	Cardomom and Elephant Mountains	Battambang, Koh Kong, Pursat, Kampong Speu, Kampot, Kep, Pailin and Preah Sihanouk

Table 3: Location of the project

However, under the current monitoring period, all the project activity instances under this grouped project have been implemented in North-western zone (Siem Reap province) and Eastern zone (Ratanakiri province, Stung Treng province), Mekong Lowlands (Kampong Thom province) only.

<sup>2</sup> [https://en.wikipedia.org/wiki/Provinces\\_of\\_Cambodia](https://en.wikipedia.org/wiki/Provinces_of_Cambodia)

## 1.8 Title and Reference of Methodology

The methodology applied under the current monitoring period has been mentioned below-

- VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1<sup>3</sup>
- AMS:I-E: Switch from non-renewable biomass for thermal applications by the user, Version 12.0<sup>4</sup>

In addition, the following tools and standards have been used under the current monitoring period:

- TOOL30: Calculation of the fraction of non-renewable biomass, version 3.0<sup>5</sup>
- Standard: Sampling and surveys for CDM project activities and programme of activities”, version 09.0<sup>6</sup>
- Guideline: Sampling and surveys for CDM project activities and programmes of activities, version 4.0<sup>7</sup>
- TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03<sup>8</sup>
- TOOL16: Project and leakage emissions from biomass, version 04<sup>9</sup>

## 1.9 Participation under other GHG Programs

Project is not registered under any other GHG programs.

## 1.10 Other Forms of Credit and Supply Chain (Scope 3) Emissions

Emission Trading Programs and Other Binding Limits:

The project is not included in an emissions trading program or any other mechanism that includes GHG allowance trading.

Other Forms of Environmental Credit:

The project has not sought or received another form of GHG-related environmental credit.

Supply Chain (Scope 3) Emissions:

<sup>3</sup> <https://verra.org/wp-content/uploads/imported/methodologies/VMR0006-Methodology-for-Installation-of-High-Efficiency-Firewood-Cookstoves-v1.1.pdf>

<sup>4</sup> <https://cdm.unfccc.int/UserManagement/FileStorage/RSJ8Y23D6ZLXE9WHQ74CBNOVUGPKMI>

<sup>5</sup> <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v4.0.pdf>

<sup>6</sup> [https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth\\_Stan05.pdf](https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth_Stan05.pdf)

<sup>7</sup> [https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20151023152925068/Meth\\_GC48\\_%28ver04.0%29.pdf](https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20151023152925068/Meth_GC48_%28ver04.0%29.pdf)

<sup>8</sup> <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf>

<sup>9</sup> <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-16-v4.pdf>

In line with section 3.23.9 of the VCS Standard version 4.4, the producer(s) or retailer(s) of the impacted good or service are known but not involved in the project or do not have a website.

PP has informed the manufacturers of the project stoves that the Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals under this grouped project. For these VCUs, the PP will be claiming carbon credits under VERRA. PP has further apprised that the ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited to avoid any potential risk of double claiming of Scope 3 emissions.

Evidence of the emails and public statement has been submitted to the VVB during verification of the project. Please refer Appendix 2 for the details.

## 1.11 Sustainable Development Contributions

The project contributes to sustainable development in several ways:

### a) Environmental Sustainability

- The project helped significantly reduce greenhouse gas emissions over the monitoring period.
- The project helped reduce the use of non-renewable biomass from forests, thus assist in conserving existing forest stock and the protection of natural forest eco-systems and wildlife habitats.

### b) Social Sustainability

- Considerably less time need to be spent collecting wood fuel for the family home thereby reducing the work burden on rural families and presenting alternative opportunities for economic development.
- The amount of indoor pollutants from the burning of biomass in the family home reduced. Less carbon dioxide, carbon monoxide and particulates emitted due to the decrease in total biomass burned and an increase in the temperature of combustion.
- The stove provides a safer method for combusting biomass for cooking, helping to reduce burn injuries, especially for children, in the family home.

### c) Economic Sustainability

- The project helped develop a section of the local economy, in the distribution, local assembly, maintenance and monitoring activities.
  - Household expenditures on cooking fuel reduced through the use of the ICS.
  - Saved household labour can be diverted to more productive economic activities.
- The project created local employment opportunities in operational and management roles, as well as future assembly and/or manufacturing initiatives.

In accordance with Paragraph 3.17.2 of VCS Standard, version 4.4<sup>10</sup>, “Where project complete a validation or verification to the Sustainable Development Verified Impact Standard (SD VISta) Program at the same time as a VCS Program validation or verification, they are not required to

<sup>10</sup> <https://verra.org/wp-content/uploads/2022/12/VCS-Standard-v4.4-FINAL.pdf>



conduct a separate demonstration of compliance with the requirements set out in this Section 3.17.1”

The project is being pursued for validation and verification under SD Vista for the present monitoring period.

**Table 1: Sustainable Development Contributions**

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
1)	3.9 <sup>11</sup>	Project specific indicator: Proportion of individuals reporting reduction in emissions during cooking and improvement in their health status	Implemented activities to decrease	For the 33,573 households which have received double stoves, survey results show that 93% of the respondents felt reduction in smoke and soot levels near the cooking area and 49% of respondents experienced reduced levels of itchiness of eye associated with cooking on open fire.	Contribute to improved health and well-being of end users by replacing traditional three stone fire cookstoves with energy efficient cookstoves. This grouped project would contribute to reduction in levels of fine particulate matter (PM2.5) emissions and improve the overall well-being of the beneficiaries.

<sup>11</sup> <https://unstats.un.org/sdgs/metadata/>

2)	4.3 <sup>12</sup>	Project-specific indicator: Number of individuals who received any informal training to enable their employment in project activity or elsewhere.	Increase	Vocational training and project related training with respect to successful implementation of a programme, appropriate methods of conducting surveys, carrying out maintenance activities etc. in addition to issues related to climate change was provided to at least 5 individuals associated with the project.	Contribute to increasing vocational and relevant skills of local individuals by providing non-formal education and training on issues related to climate change, with specific skill building in operations and surveying activities related to stove distribution and its monitoring aspects under VCS and SD VSta.  The project through its targeted youth and women program will lead to the training of 50 number of individuals in its region of implementation.
3)	5.4	5.4.1 Time spent on unpaid domestic and care work, by sex, age, and location.	Implemented activities to decrease	The project survey results augment the above claim as 95% respondents reported Less time spent on cooking activities, 65% of the respondents reported to having experienced fewer trips for wood collection freeing up their time for other activities.	Contribute to reducing drudgery and reducing gender inequality, especially for women and children by saving time spent in collecting fuelwood and cooking. The average time spent on unpaid work by women in Asian OECD countries was 268 minutes per day (4.5 hours) <sup>13</sup> . On an average woman in Cambodia spend three to four hours a day on energy-related activities such as gathering fuel wood, boiling water, and cooking. <sup>14</sup>

<sup>12</sup> <https://unstats.un.org/sdgs/metadata/>

<sup>13</sup> CD, 2011. [Online] Available at: <https://www.oecd.org/els/soc/49306957.pdf>

<sup>14</sup> Bank, T. W., n.d. *News and Broadcast: Cambodia: National Improved Cook Stove Program*. [Online] Available at: [http://web.worldbank.org/archive/website01363/WEB/0\\_-8747.HTM](http://web.worldbank.org/archive/website01363/WEB/0_-8747.HTM)

4)	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology	Increase	Increasing access to clean cooking technology by distributing a set of project stoves in 33,573 households.	The project will lead to time savings and reduced drudgery in million households translating to an equal number of women as they are primary cooks and fuel wood collectors in majority of households. The women can use the time saved for doing more productive activities or personal care.
5)	8.3	8.3.1 Proportion of informal employment in non-agriculture employment, by sex.	Increase	A total of at least 16 individuals were directly and indirectly employed under the project activity during the current monitoring period in Country for various activities related to project implementation, maintenance, and monitoring	Contribute to the generation of employment in the informal sector (total economy, agriculture, and non-agriculture) by contracting locals with targeted employment of 50 employees for varying length of time over the project lifetime with a focus on hiring females.
6)	9.2	Project Specific Indicator: Number of additional individuals employed in the manufacturing unit for producing the cookstoves being distributed under the project activity	Increase	During the current monitoring period in Country, at least 113 people were directly and indirectly engaged under the project activity for a variety of tasks connected to manufacturing unit for producing the cookstoves.	Contribute to increasing the capacity of existing local manufacturing units (in terms of employment) in Cambodia due to increased demand for cookstove parts within the project area.

7)	13.0	Project Specific Indicator: Reduction in GHG emissions as compared to the baseline scenario (open fire)	Decrease	Total emission reduction in the current monitoring period is 126,239 tCO2 eq.	Contribute to estimated GHG emission reduction ~55.51 tCO2e from Ecoa wood and ~13.95 tCO2e from Naga Stove per household due to the replacement of baseline stoves with the two improved cookstoves over 10 years of crediting period
8)	15.2	15.2.1 Progress towards sustainable forest management by increasing above-ground biomass in forests	Implemented activities to increase	The project has resulted in saving at least~ 5.69 tons of non-renewable biomass per household per year during the monitoring period	Contribute to an estimated reduction in removal of woody biomass to the tune of ~ 12.49 tons per Naga stove and ~ 49.83 tons per Ecoa Wood stove 10-year crediting period, from forests surrounding the communities thereby leading to an increase in the above-ground biomass in these forests

## 2 SAFEGUARDS

### 2.1 No Net Harm

No potential negative environmental or socio-economic impacts have been identified for the project.

- The project does not coerce the population into any practice or habit which they are not willing to take up as the cooking practice or habit on the project stove is similar to what was practiced before implementing this project activity, i.e., on the baseline stove.
- The project activity promotes gender equality as it intends to reduce the burden on women in the most vulnerable communities by reducing the fuel wood consumption. The amount of time spent collecting fuel wood and cooking will be reduced. Women will have more time for other pursuits. The risk of being exposed to gender-based violence will also reduce.
- The project is neither involved in any activity that would bring environmental deterioration nor will lead to any emission of toxic substances. The project stoves will rather reduce emissions due to the increased thermal efficiency compared to the baseline stoves.
- There are no threats anticipated in terms of negative effects on the local economy. Moreover, the locals will also be employed as a result of this project activity. Thereby improving the economic growth in the region where the project activity has been implemented.

### 2.2 Local Stakeholder Consultation

Feedback was requested from local stakeholders for the “Cleaner Cooking Solutions Program” in Cambodia between 16-April-2020 and 22-May-2020. Due to the COVID-19 pandemic, group gatherings were not allowed at the time in Cambodia, thus, stakeholder feedback was collected electronically, although people had the option to physically mail a letter to and/or call C-Quest Capital Cambodia’s office.

Stakeholders were invited to provide feedback via multiple methods including: an announcement posted on C-Quest Capital’s website on 16-April-2020, an English and Khmer (local language) advert in The Phnom Penh Post, a major national daily newspaper, on the 17-April-2020 and e-mail invitations were sent from C-Quest Capital on 1-May-2020 to 49 people from Government, NGOs, stove manufacturers, project developers, academia, private and public-sector entities involved with cookstoves and/or sustainable energy. The email included a link to the CQC website announcement and feedback form.

### **The mechanism for on-going communication with local stakeholders:**

PP follows three methods for continuous feedback and ongoing communications with stakeholder's during project implementation. These are –

- **Call over helpline number** – End-user can report their grievances or complaints regarding maintenance and/or malfunction of stove or any of its parts or else any other issue by calling on the helpline number which has been engraved on the serial number plate of the project stoves. The CQC ground team is expected to take immediate actions to address the grievance failing which, CQC country manager can summon them for an explanation.
- **Annual follow-up visit and spot check visits to households**– CQC has on-ground team who make at-least one visit to each registered household in a year. Usually, this follow-up visit is conducted within one month from the date of distribution/registration. The objective of this visit is to ensure that project cookstoves are being properly used and to educate women on cookstove maintenance, best practices, and health benefits. The end user can use these visits to get his complaint registered. In addition to the above-mentioned annual visits, CQC country manager conducts spot visits to registered households on sample basis. One of the objectives of this visit is to ensure that the ground team is addressing the concerns from the beneficiaries in adequate way and the end-users are trained on operation and maintenance of cookstoves including make the end-users aware about the benefits associated with the cookstoves. This spot check visit also addresses the grievances and complaints from the end-users.
- **Through village chief/community leader/stove pioneer** – In view of the cultural obligations and individual level inhibitions, a provision has been made for the end users to approach CQC team through their village chief/community leader/stove pioneer with whom they might be relatively more comfortable. The village chief/community leader/stove pioneer then channelizes the concern/issue through appropriate route i.e., staff from CQC for resolution. This is undertaken to protect the traditional sentiments and value system of the villages and help them express their issues without any hesitation.

The following figure presents a pictorial representation of the approach adopted to address any grievances and feedback provided by the end-users receiving the improved cookstoves (project stoves) under this grouped project in Cambodia:

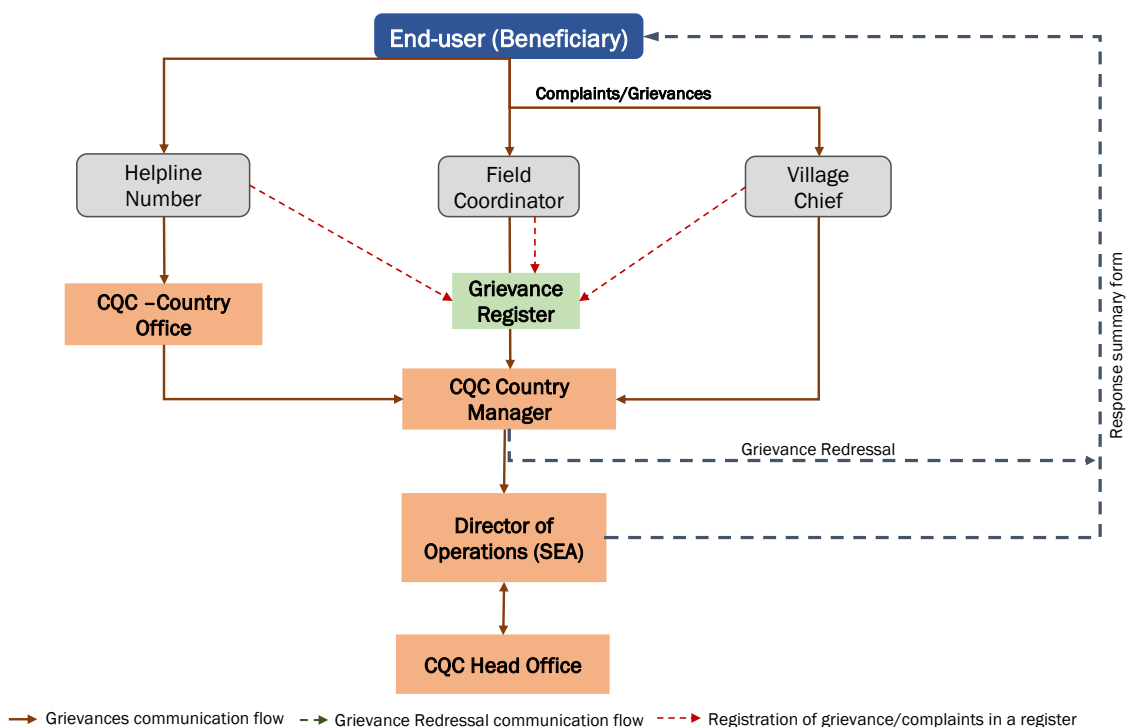


Figure 3: Modes for on-going communication with local stakeholders under VCS 2409

In order to ensure that grievances are addressed within the prescribed time norms, the levels of responsibility along with timeline is defined for redress of each category of grievances. In case the grievance cannot be redressed at a particular defined level then it is reported to the next higher authority. The table below presents the time norms along with level of responsibility.

Grievance type	Timeline for redress at the level of CQC country office/CQC country manager	Timeline for redress at the level of Director of Operations (SEA)	Timeline for redress at the level of CQC Head office
Maintenance related, inability to use the stove, missing/broken/damaged stove parts/stoves	5 days*	3 days	NA
Complaints against IP; pre-distribution, distribution, and post distribution related or any other complex concerns	One week	One week	One week



\*Spare parts need to be provided to the household while the team addresses the fault

During the current monitoring period, five grievances have been received from the end users, which is summarized in below table.

SN	Name of Complaint	Mode of Communication	Description of reported complaint	Description of resolution Provided	Feedback of End-User
1	Thoek Pachong	Through village chief	Lost pot skirt.	CQC's field officer delivered a spare pot skirt to the HH	Happy
2	Prom Tey	Call over helpline number	No pot skirt	A spare pot skirt was delivered to the HH.	Very happy and thank you CQC
3	Khlean Khven	Through Commune authority	Lost ashtray.	A field officer delivered a spare ashtray to the HH.	Thank you CQC for providing a new ashtray
4	Duch Rady	Through village chief	The HH doesn't know to use Kuniokoa properly.	CQC ops staff went down to train the HH again.	Thank you CQC
5	Soth Tha	Through village chief	The HH doesn't know to light Kuniokoa	CQC ops staff went down to train the HH again.	Satisfied

Upon resolution of the grievances, the complaint registration form and the response summary form against each complaint were filled and maintained by the Country Manager. These grievances were hence resolved by following one of the grievance redressal methods mentioned in the MR, i.e., approach through village chief/call over helpline number/community leader. Grievance redressal records such as evidence of the complaint registration form, response summary form, and grievance register detailing the timely redressal of the grievances have been provided to the verifying VVB for assessment.

Further, no project design change has been done by the Project Proponent under the current monitoring period.

## 2.3 AFOLU-Specific Safeguards

This section is not applicable as the project is a non- AFOLU project.

# 3 IMPLEMENTATION STATUS

## 3.1 Implementation Status of the Project Activity

Under this current monitoring period, ICS have been distributed under the energy efficiency measure component only to the households. In total, three ICS models have been distributed in Cambodia i.e., (Naga-Cambodia Cookstove, Kuniokoa and SSM-S32-X), however per household, two ICS have been distributed (i.e., one from Kuniokoa or SSM-S32-X and other is, Naga-Cambodia Cookstove) under this grouped project. Other ICS technologies are not completely ruled out and may be added based on the requirement of end users in subsequent monitoring periods under this grouped project. Technical specifications of the project devices have been summarised in tables below:

No.	Parameter	Value
1	Thermal Efficiency	52.68%
2	Dimensions	24.5 cm height, 32 cm diameter
3	Material	<ul style="list-style-type: none"> <li>Stove Top: Cast Iron, Diameter 32 cm</li> <li>Stove Body: 0.6mm Stainless Steel, Grade 201</li> <li>Grate Mouth: 1mm Stainless Steel, Grade 304</li> <li>Combustion Chamber: Refractory Ceramic Chamber</li> <li>Metal Liner: 0.5mm Fe-Cr-Nb alloy (iron, chromium, niobium)</li> <li>Inner fuel shelf: Two grates, Diameter 4-5mm stainless steel grade 304, second one of diameter 3-4mm made of Fe-Cr-Al alloy (Iron, chromium and aluminum)</li> <li>Outer fuel shelf: 5mm ordinary steel with powder coating.</li> <li>Pot Skirt: Corrugated Adjustable Pot Skirt with Clip, 0.6mm Stainless Steel, Grade 201</li> </ul>
4	Life Span	10 years

Table 4: Technical description of SSM S32-X<sup>15</sup>

No.	Parameter	Value
1	Thermal Efficiency	51.3%

<sup>15</sup> Manufacturer specification.

2	Dimensions	32.1 cm height, 28.2 cm diameter
3	Material	<ul style="list-style-type: none"> <li>Stove Body: CRCA Carbon Steel painted high gloss black epoxy power coat</li> <li>Pot Rest: Stainless Steel</li> <li>Pot Skirt: Stainless Steel</li> <li>Burning Chamber: Stainless Steel</li> <li>Fuel Feeding Door: Stainless Steel</li> <li>Stick Shelf: CRCA</li> <li>Legs: Aluzinc</li> </ul>
4	Life Span	10 years

Table 5: Technical description of Kuniokoa<sup>16</sup>

No.	Parameter	Value
1	Thermal Efficiency	35%
2	Dimensions	28 cm height (+/- 0.5 cm), 33 cm diameter (+/- 0.5 cm),
3	Material	Combustion Chamber and Stove Top: Ceramic made from locally available clay Stove Body: Aluminium Sheet Metal
4	Life Span	More than 6 years

Table 6: Technical description of Naga Cookstove<sup>17</sup>

Till the end of the second monitoring period, total 67,146 stoves (Kuniokoa - 32,112 Naga-Cambodia Cookstove- 33,573 and SSM-S32-X -1,461) have been distributed to 33,573 households in Cambodia.

Instance Type	Zone	Province	Strata Number	Number of cookstoves
Kuniokoa	Eastern	Ratanakiri Stung Treng	Strata-1	8,609
	North-Western	Sime Reap	Strata-3	2,272

<sup>16</sup> Manufacturer specification.

<sup>17</sup> Manufacturer Specification

	Mekong Lowlands	Kampong Thom	Strata-6	21,231
Naga-Cambodia	Eastern	Ratanakiri Stung Treng	Strata -2	8,609
	North-Western	Siem Reap	Strata-4	3,733
	Mekong Lowlands	Kampong Thom	Strata-7	21,231
SSM-S32-X	North-Western	Siem Reap	Strata-5	1,461

Table 7: Implementation status of VCS 2409

VCS methodology VMR0006, version 1.1 allows the use of a correction factor of 0.95 applied to the overall emissions reductions to account for any possible leakage. This factor has been applied to the emissions reductions presented in this report. Further, during the current monitoring period, no incident or event occurred, that could affect GHG emissions reduction and approved monitoring plan.

## 3.2 Deviations

### 3.2.1 Methodology Deviations

This project did not apply any methodology deviations.

### 3.2.2 Project Description Deviations

This project did not apply any deviations related to Project Description.

## 3.3 Grouped Projects

For the inclusion of new project activity instances, the project proponent shall ensure that it meets the eligibility criteria below.

**Improved cook stoves as energy efficiency measure:**

No	Criterion	Compliance Requirement	Method of Evaluation
1.	<b>Methodology</b>	The project activity instance shall use VCS approved methodology - VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1 and shall comply with its requirements.	Details of how the project activity meets the requirements of the methodology can be confirmed in Section 3.2 of the registered VCS PD <sup>18</sup> .
2.	<b>Technology</b>	The project activity instance shall implement improved cookstoves having minimum efficiency of 25% below which it shall not be eligible under this grouped project.	Manufacturer's specification has been used for establishing minimum efficiency criteria in the first year of stove installation. Manufacturer specifications for project devices has been submitted to the VVB.
3.	<b>Scale</b>	Each project activity device shall be less than equal to 1% of capacity limit specified in applied methodology.	Calculation sheet demonstrating adherence to this criterion has been submitted to VVB.
4.	<b>Project Location</b>	Each project activity instance shall be located within the geographic boundary of Cambodia.	Self-declaration to demonstrate that project boundary is within the geographical boundary of Cambodia has been submitted to the VVB.
5.	<b>Start date</b>	The start date of project activity instances shall be same as or later than the grouped project activity start date.	ICS distribution/ registration data recorded in project database. Same has been submitted to the VVB.
6.	<b>Additionality</b>	All new project activity instances will use the activity method for demonstration of additionality.	a. Regulatory Surplus  There is no law, statute or government programme or

<sup>18</sup> <https://registry.verra.org/app/projectDetail/VCS/2409>

No	Criterion	Compliance Requirement	Method of Evaluation
			<p>policy in host country mandating the project activity nor is there any systematically enforced law, statute or other regulatory framework for such projects hence this requirement is satisfied for all project activity instances to be included in the current grouped project.</p> <p>b. Positive List</p> <p>Self-declaration/ individual ICS registration form or any other documentary evidence mentioning that end users were not charged for the ICS.</p>
7.	<b>Target Population</b>	<p>End user for each project activity instance shall be households, community kitchens (religious, educational institutions etc.) or small /medium enterprises cooking with non- renewable biomass on inefficient wood or charcoal stoves. Each ICS will be assigned a unique serial number with name of ICS user, address, GPS coordinates, stove model, distribution date etc.</p>	<p>Database/ICS Registration form/ICS invoice if distribution has started or Self- declaration by project participant.</p>
8.	<b>Capacity Limit</b>	<p>Where a capacity limit applies to a project activity included in the project, no project activity instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit</p>	<p>No project activity instance shall exceed the applicable limit, which is 180 GWhth/y.</p> <p>The expected annual energy saving for each project activity instance is approximately 0.0188 GWhth/y for Kuniokoa cookstove, 0.0059</p>

No	Criterion	Compliance Requirement	Method of Evaluation
			<p>GWhth/y for Naga cookstove and 0.0192 GWhth/y for SSM-S32-X cook stove.</p> <p>As the annual energy saving of single project activity instance is below 1% of the limit, therefore no project activity instance is identified and divided into clusters. Same can be verified from the emission reduction spreadsheet being submitted to the VVB.</p>

Table 8: Eligibility Criteria and methods of evaluation for VCS 2409

Under the current monitoring period, there are no project activity instances being added under this grouped project which will enable switch from non- renewable biomass to renewable biomass. Therefore, details regarding the compliance with the AMS I.E. methodology has not been mentioned under this section.

## 4 DATA AND PARAMETERS

### 4.1 Data and Parameters Available at Validation

Introduction of ICS as energy efficiency measure:

Data / Parameter	$f_{NRB,y}$
Data unit	Fraction
Description	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass
Source of data	Value determined from survey methods
Value applied	0.97
Justification of choice of data or description of	This parameter shall be determined ex-ante. C4 EcoSolutions was appointed as third party to study and derive the $f_{NRB}$ value for Cambodia.

measurement methods and procedures applied	
Purpose of Data	Calculation of emission reductions
Comments	The report of fNRB will be made available to VVB during the validation.

Data / Parameter	$NCV_{wood\ fuel}$
Data unit	TJ/tonne
Description	Net calorific value of the non-renewable woody biomass that is substituted or reduced
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 1 Introduction
Value applied	0.0156
Justification of choice of data or description of measurement methods and procedures applied	IPCC default value
Purpose of Data	Calculation of emission reductions
Comments	No comments

Data / Parameter	$EF_{wf,CO_2}$
Data unit	tCO <sub>2</sub> /TJ
Description	CO <sub>2</sub> emission factor for the use of wood fuel in baseline scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion
Value applied	112
Justification of choice of data or description of measurement methods and procedures applied	IPCC default value
Purpose of Data	Calculation of emission reductions
Comments	No Comments



Data / Parameter	$EF_{wf,non\ CO_2}$
Data unit	tCO <sub>2</sub> /TJ
Description	Non-CO <sub>2</sub> emission factor for the use of wood fuel in baseline scenario
Source of data	Default VMR0006 value
Value applied	26.23
Justification of choice of data or description of measurement methods and procedures applied	IPCC default value
Purpose of Data	Calculation of emission reductions
Comments	

Data / Parameter	$\eta_{old}$
Data unit	Fraction
Description	Efficiency of baseline cookstove
Source of data	Methodological default value
Description of measurement methods and procedures to be applied	<p>a) A default value of 0.1 shall be used if baseline device is a three-stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney</p> <p>b) A default value of 0.2 shall be used for other types of devices.</p>
Frequency of monitoring/recording	Fixed for each individual household at the time of project implementation.
Value monitored	0.1
Monitoring equipment	-
QA/QC procedures to be applied	All the baseline stoves replaced were conventional device with no improved combustion air supply or flue gas ventilation. Same was confirmed at the time of distribution of ICS to each household (Consent Deed signed by end user)
Purpose of data	Calculation of emission reductions

Calculation method	None
Comments	None

Data / Parameter	$\eta_p$
Data unit	Fraction
Description	Efficiency of project stove(fraction) at the start of project activity.
Source of data	Manufacturer's specification
Value applied	Kuniokoa Generation 2 with pot skirt, 51.3% Naga Stove, 35% SSM-32-X, 52.68%
Justification of choice of data or description of measurement methods and procedures applied	This parameter shall be determined ex-ante
Purpose of Data	Calculation of $\eta_{new,y,i,j}$
Comments	No comments

## 4.2 Data and Parameters Monitored

Data / Parameter	$N_{y,i,j}$
Data unit	Number
Description	Number of project devices of type i and batch j operating during year y
Source of data	Monitoring
Description of measurement methods and procedures to be applied	Measured based on a representative sample.
Frequency of monitoring/recording	At least once every two years

Value monitored	67,146  Kuniokoa : 32,112  Naga Stove : 33,573  SSM - S32- X : 1,461
Monitoring equipment	No equipment was used to monitor this parameter
QA/QC procedures to be applied	Sampling standard “sampling and surveys for CDM project activities and programme of activities” version 9 was used for determining the sample size to achieve 90/10 confidence precision.
Purpose of data	Calculation of emission reductions
Calculation method	Proportion of operational stoves obtained from the survey is multiplied by the total commissioned stoves to arrive at this value.  Proportion of operational Kuniokoa stoves: 100%  Proportion of operational Naga Stoves: 100%  Proportion of operational SSm-S32-X Stoves: 100%  $N_{y,i,j} = 100\% * 32,112$ = 32,112 Kuniokoa stoves $N_{y,i,j} = 100\% * 33,573$ = 33,573 Naga stoves $N_{y,i,j} = 100\% * 1461$ = 1461 SSM-S32-X stoves
Comments	No comments

Data / Parameter	$\eta_{new,y,i,j}$
Data unit	Fraction
Description	Efficiency of the improved cookstove type i and batch j during year y
Source of data	Calculation
Description of measurement methods and procedures to be applied	To adopt Option V given in the methodology:

	“Efficiency of the improved cookstoves to be estimated using equation 5 above where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored”			
Frequency of monitoring/recording	Annually			
Value monitored	The value below is applied-			
	Year (y)	$\eta_{new,y,i,j}$ for Kuniokoa	$\eta_{new,y,i,j}$ for Naga Cookstove	$\eta_{new,y,i,j}$ for SSM-S32-X
	1	48.22%	32.90%	49.52%
Monitoring equipment	Calculated value			
QA/QC procedures to be applied	This parameter has been calculated using equation 5 of the applied methodology			
Purpose of data	Calculation of emission reductions			
Calculation method	<p>Calculation was performed using equation below:</p> <p>For Vintage 1 stoves – Kuniokoa-</p> $\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$ $= 51.30 \times (0.99)^{1-1} \times 0.94$ $= 48.22\%$ <p>For Naga Cookstove-</p> $\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$ $= 35.0 \times (0.99)^{1-1} \times 0.94$ $= 32.90\%$ <p>For SSM-S32-X Cookstove-</p> $\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$ $= 52.68 \times (0.99)^{1-1} \times 0.94$ $= 49.52\%$			
Comments	No comments			

Data / Parameter	$B_{y=1,new,i,j,survey}$
Data unit	Tonnes per device per year
Description	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j
Source of data	First Monitoring survey
Description of measurement methods and procedures to be applied	<p>Sampling standard “sampling and surveys for CDM project activities and programme of activities” version 9 was used for determining the sample size</p> <p>As per section 9.2 of the verra approved methodology Methodology for Installation of High Efficiency Firewood Cookstoves_v1.1 Data and Parameters Monitored, the frequency of monitoring/recording for <math>B_{y=1,new,i,j,survey}</math> value determined in the first year of project implementation i.e., determined in the first year of the introduction of the devices (e.g., during the first year of the crediting period, <math>y=1</math>) through measurement campaigns at representative households and/or sample survey.</p> <p>For Kuniokoa and Naga cookstoves the <math>B_{y=1,new,i,j,survey}</math> value is determined through sample survey conducted between 3-September-2022 to 14-October-2022.</p> <p>For SSM-S32-X cookstove the <math>B_{y=1,new,i,j,survey}</math> value is determined through sample survey conducted between 27-February-2023 to 14-March-2023.</p> <p>Sample surveys to estimate biomass usage are solely based on questionnaires or interviews. PP has conducted monitoring and verification survey for capturing biomass usage for each stove and the procedure for the same is as follows:</p> <ol style="list-style-type: none"> <li>1. For calculation of biomass usage of selected sample household, first surveyors measured the ‘weight of Bag and Binding’ used for measuring the wood-fuel. For all the weight measurement pre-calibrated electronic weighing scale was used by the surveyors.</li> <li>2. The surveyor next asks the respondents to make a pile of wood that represents the amount of wood they would cook with on ‘ALL Stoves’ on a regular day.</li> <li>3. next ask the respondent to take from the pile the amount of wood that corresponds to the amount of wood they would cook with on an average day on ‘project stove 1’. This is written down as ‘Weight of firewood consumed on project stove 1- (kg/day)’.</li> <li>4. next the surveyor asks the participant once more to select from the pile the amount of wood that corresponds to how much they use on the ‘project stove 2’ to cook with. This is noted down as ‘Weight of firewood consumed on project stove 2- (kg/day)’.</li> <li>5. After subtracting ‘weight of Bag and Binding’ from respective projects stove wood consumption; final biomass consumption values have been arrived.</li> </ol>

Frequency of monitoring/recording	In the first year of project implementation
Value monitored	Kuniokoa- 1.1357 tons/year/stove Naga Cookstove- 0.5898 tons/year/stove SSM-S32-X – 1.1224 tons/year/stove
Monitoring equipment	Weighing scale
QA/QC procedures to be applied	The fuel wood was measured using factory calibrated weighing scale. The identical AWS - made SR-20 hanging scales were used for the measurement of fuelwood.
Purpose of data	Calculation of emission reductions
Calculation method	This is monitored value
Comments	At the time of first monitoring survey, the surveyor enquired for firewood consumption for each stove installed in the household.

Data / Parameter	Date of commissioning of project device i
Data unit	Date
Description	Actual date of commissioning of the project device
Source of data	Project database
Description of measurement methods and procedures to be applied	Registration records
Frequency of monitoring/recording	Fixed and recorded at the time of commissioning/distribution
Value applied	Total 67,146 ICS (32,112 Kuniokoa , 33,573 Naga Cookstove and 1461 SSM-S32-X) was distributed under the grouped project activity between 21-February-2022 to 27-December-2022 and for the same project database has been submitted to the VVB.
Monitoring equipment	No equipment was used to monitor this parameter
QA/QC procedures to be applied	Internal cross-checks by the Project Proponent will be undertaken as Quality Check.
Purpose of data	Calculation of emission reductions
Calculation method	No calculation used for this parameter

Comments	No comments
Data / Parameter	Life Span
Data unit	Number of years
Description	The operating lifetime of the project device. The life span should be reported if the methodology equation 5 is adopted to determine the project stove efficiency
Source of data	Manufacturer's specification
Description of measurement methods and procedures to be applied	Technical specification as declared by the manufacturer and wherever possible supported by third party report.
Frequency of monitoring/recording	Once at the time of project stove installation
Value monitored	Kuniokoa: 10 years Naga Stove: 6 years (depending on maintenance) SSM-S32-X : 10 years
Monitoring equipment	No equipment was used to monitor this parameter
QA/QC procedures to be applied	This parameter is referred from the Manufacturer's specification
Purpose of data	Calculation of emission reductions
Calculation method	No calculation used for this parameter
Comments	No comments

Under the current monitoring period, there are no new project activity instances being added under this grouped project which will enable switch from non- renewable biomass to renewable biomass. Therefore, the monitoring of parameters under AMS I.E. methodology has not been carried out by the PP and accordingly not mentioned under section 4.1 and 4.2 of the VCS MR.

### 4.3 Monitoring Plan

The project's monitoring system follows the monitoring plan described in section 5.3 of the VCS-PD.

The monitoring system applied involves a number of key elements to ensure that the PP has high-quality, unbiased and reliable information regarding the performance of the project in terms of implementation and outcomes, and for the purposes of calculating Verified Carbon Units (VCUs)

following VCS methodology VMR0006, version 1.1 on the basis of the amount of non-renewable biomass saved by the ICS in the project activity.

The key elements are the following:

- Data collection procedures
- Distribution and Monitoring Database
- Spot Checking of ICS (ongoing)
- Sample Plan for the Monitoring Survey
- Data Quality, Consistency and Duplication Checks
- Monitoring Reporting
- 

The below flow-chart illustrates the roles and responsibilities of the parties during the implementation of the monitoring plan for the project activity. In the below flowchart, the **project implementer** is abbreviated to “**Imp**”, while the **project proponent** by “**PP**”.

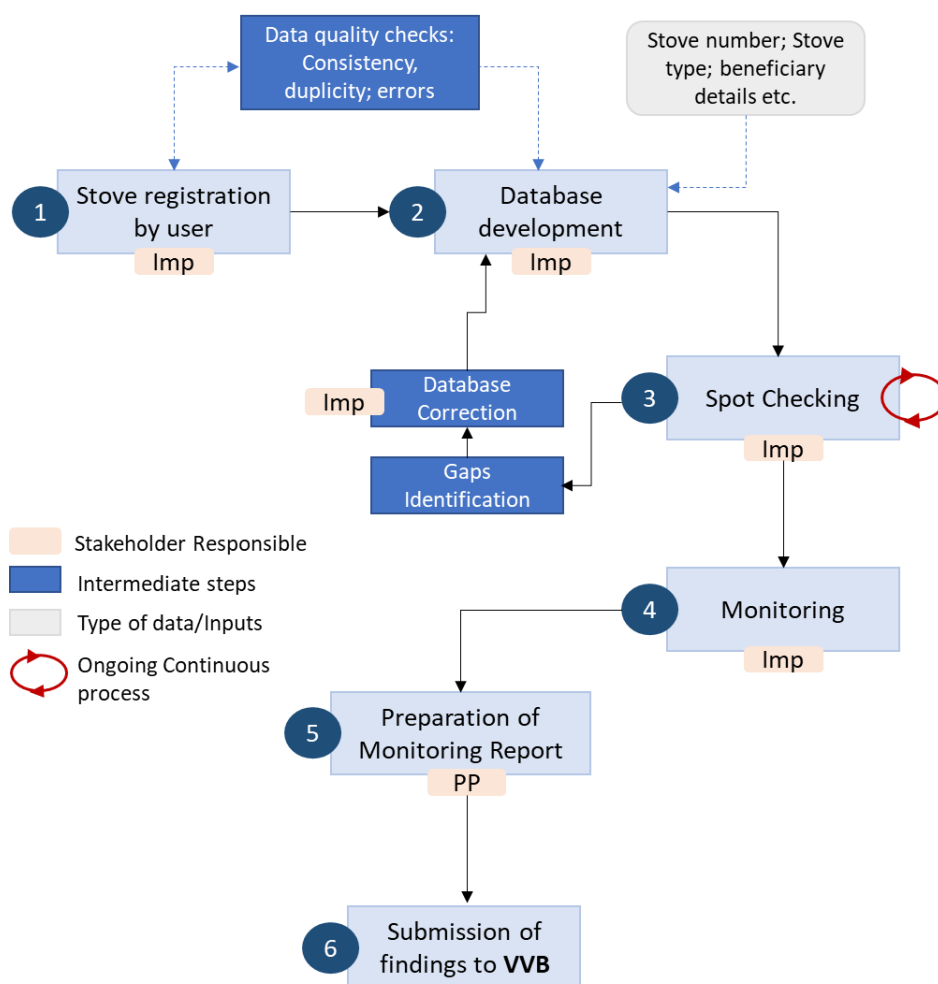


Figure 4: Roles and Responsibilities of parties during implementation of the project

Below is the description of the above steps on the flow-chart -



1. **Imp: User registers stove:** Project implementer will collect/receive the necessary information requested in the Registration process from the user. Means of collecting this information may be through a physical Registration Card filled by project Imp staff, retailers, end-users, or partner organization's staff, or through the use of ICTs or SMS. Project Implementers' staff shall double check the accuracy of information provided, and request for field staff additional clarifications if needed.
2. **Imp: Data logged into database:** Project implementer trained staff will input the data in the database either manually (if data collected from physical Registration Card) or this will be automatically input if data was collected using ICTs or SMS. Project implementer staff shall double check the information included on the database and check for duplications. Any duplicate information shall be investigated, and errors corrected or excluded from the database if it is a true duplicate entry.
3. **Imp: Spot- checking (ongoing):** Project implementer field staff will randomly select units included in the database and visit or contact the stove users to cross-check the information on the database with the factual evidence in the field. Any inconsistencies found (e.g., change in the address of a user) will be updated on the database, and in the case, ICS are found to be no longer in use, they will be clearly marked as such and excluded from emission reductions calculations.
4. **Imp: Monitoring:** Project implementer will follow the requirements as per VCS-PD to collect the necessary information for a monitoring report.
5. **PP: Preparation of monitoring report:** PP will prepare the final monitoring report to be provided to the VVB for verification of emission reductions. A copy of the monitoring report will remain with the PP.

The PP (C-Quest Capital SGT Asia Stoves Private Limited) will coordinate and manage each project Implementer and assist them in implementing each element of the monitoring plan. The project implementation is being managed by CQC – Cambodia (a subsidiary of CQC in Cambodia). The monitoring plan shall be elaborated in accordance with the Sampling Plan below. Also, regular audits conducted throughout the project lifetime ensures proper functioning of stoves and determination of the lifespan of the same.

The Project Proponent (PP) is comprised of Director- Operations (SEA), CQC Country Manager (CQC Cambodia), Project Manager, CQC field coordinator. The PP coordinates and manages the implementation of each element of the monitoring plan and coordinate with the project execution on ground.

The roles and responsibilities of the PP are described below:

#### **Director – Operations (SEA)**

- Take lead in CQC's community project operations in SEA and the country operations and/or manage special projects to quantify and verify co-benefits.

- Actively participate along with country managers and implementing partners in the project implementation of, and then lead the post implementation of the ICS program and working cross-functionally with various associated CQC teams such as CSAT, marketing, investment etc.
- Establish quarterly budgeting processes along with an eye on stove implementation timeline
- Maintain and lead a regular planning and reporting cadence for the country team.
- Improve efficiency and measure effectiveness during project implementation
- Manage stove shipments, international and regional supply chain, and logistics reconciliation of stoves.
- Work with CSAT for data quality and GHG compliance issues for smooth monitoring and verification activities.

**Project Manager**

- Ensures compliance of the technology with project requirements.
- Follows up of registration of any project and issuance of VCUs.
- Oversees the proper implementation of project.
- Communicate with VERRA and VVB.

**CQC Country Manager (CQC Cambodia)**

- Work directly with the Director – Operations (SEA) to coordinate on the ground logistical support of stove projects with implementing partner.
- Manage all country-based personnel, including identifying and contracting, and training for the entire in-country team.
- Be well versed in all CQC training materials / operational manuals, SOPs and able to co-facilitate trainings for field staff.
- Conduct spot-checks.
- Assist in the customs/border/shipment logistics of stoves and parts to COO, Director and IPs.
- Manage stove distribution if needed.
- Manage country-based expenses and budgets for travel, office expense, equipment etc.
- Manage CQC assets such as vehicles, its registrations and insurance.

- Build a robust and trustworthy relationship with local stakeholders and the target community to ensure long-term and mutually beneficial partnerships.
- Scout the fieldwork for data cleaning to ensure the high quality and accuracy of data;

#### CQC field coordinators

- Manage and implement cookstove distribution, including develop the necessary partnerships or gain the necessary approvals with local authorities to identify communities for distribution; ensure complete registration of each Cookstove on the Database using handheld electronic devices provided by CQC
- Implement follow-up visits i.e., visit Project households once each year to ensure that Cookstoves are being properly used and to remind women cooks on project cookstoves, its maintenance, best practices, and health benefits.
- Conduct monitoring and verification survey.
- Organizing and facilitating in-person or remote inspections of areas or households involved in the Project, as and when required.
- Onsite oversight of project as per SOP
- Coordinate with local stakeholders to develop activities.
- Facilitate the implementation and sensitize the awareness of the target community;

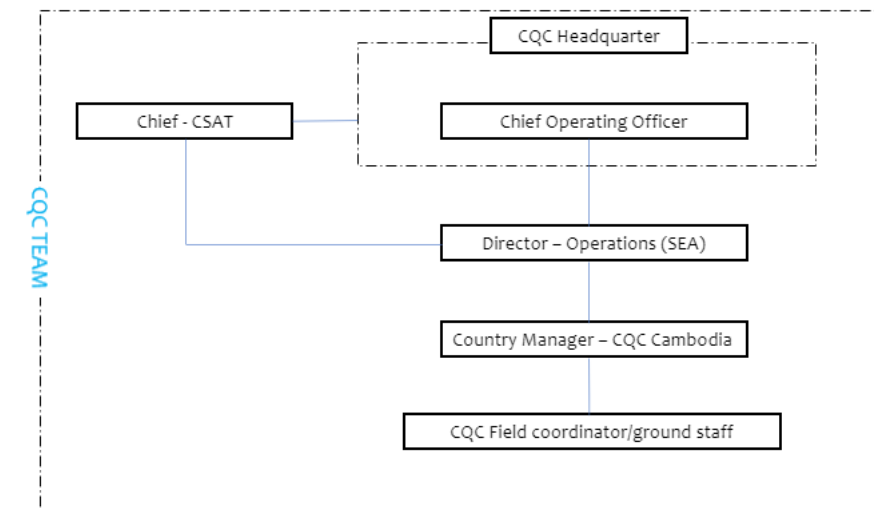


Figure 5: Team Structure for VCS 2409

#### Data measuring, recording Method and Implementation of Sampling Approaches

Steps 1, 2 and 3 captured end user information and populated the database, as well as provided database quality control.

Step 4 involves creating sampling surveys to capture data on number of project devices operating during year  $y$  ( $N_{y,j,j}$ ) and  $B_{y=1,new,i,j,survey}$

Parameter	Description of Parameter	Sampling approach (outcome in brackets)
$N_{y,j,j}$	Number of project devices operating during year $y$	Visual inspection of the premises to see if ICS is operational and in use. Interview with end user if required to verify that ICS is still in use [Yes/No]
$B_{y=1,new,i,j,survey}$ Quantity of woody biomass used by project devices in tonnes per device	Daily consumption of woody biomass per ICS	Interview with end user and measure the daily consumption of woody biomass of ICS (Daily consumption of woody biomass)

Table 9: Sampling approaches for Parameters under first monitoring period

The population is heterogeneous in nature i.e., common technology with similar operating characteristics but dispersed i.e., distribution of ICS is spread across different states/province of the country. The population consists of sub-populations which are homogeneous called as Strata. The characteristics of population (for example quantity of biomass consumed) are more similar within the stratum (ICS of same type, vintage and project region in which they are operating) than across the strata. Therefore, Stratified Random Sampling technique has been used to conduct sampling survey for monitoring parameters in accordance with the Sampling Plan of section 5.3 of the VCS-PD. The objective was to obtain reliable and unbiased estimates of the monitoring parameters. Reliability levels were set at 90% confidence and 10% precision as per VMR0006, version 1.1.

For this monitoring period, The ICS of same type, vintage, and project region in which they are operating have been grouped in the same strata. Samples have drawn by using the random number generator. The stratas in this grouped project considered for calculating sample size are summarized below-

Strata	Stove Type	Project region	Vintage	Number of registered stoves in respective project region as per database (g)
1	Kuniokoa	Eastern	1	8,609
2	Naga Stove	Eastern	1	8,609

3	Kuniokoa	North-Western	1	2,272
4	Naga Stove	North-Western	1	3,733
5	SSM S32-X	North Western	1	1,461
6	Kunikoa Stove	Mekong Lowlands	1	21,231
7	Naga Stove	Mekong Lowlands	1	21,231

Table 10: Criteria for strata classification for sample size calculation

### Sample size calculation:

#### Proportion parameter: - $N_{y,i,j}$

The calculation of the required sample size for  $N_{y,i,j}$  parameter in this monitoring period has been calculated using equation<sup>19</sup> mentioned below in line with section 5.3 of the VCS PD:

$$n \geq \frac{1.645^2 NV}{(N - 1) \times 0.1^2 + 1.645^2 \times V}$$

Where=

$$V = \left( \frac{SD}{p} \right)^2$$

n=Sample size

N= Population size (Total number of registered ICS under first monitoring period)

p= Weighted overall expected proportion

SD<sup>2</sup> = Weighted overall expected variance

1.645= Represents the 90% confidence required

0.1= Represents the 10% relative precision

The calculation of the required sample size for  $N_{y,i,j}$  parameter in this monitoring period is illustrated below.

Input	Value	References
Confidence level	90%	assumption
Relative precision	10%	assumption

<sup>19</sup> Equation 4, Guidelines for Sampling and Surveys in CDM Project Activities and Programme of Activities (version 04.0)

z multiplier	1.645	determined by confidence interval
Population size, N	67,146	stove registration database
Overall variance	0.128	calculated
Overall proportion	0.850	calculated
V, ratio of variance to proportion squared	0.176	calculated
Predicted sample size, n	49	Calculated

The resulting sample size of 49 stoves is calculated as:

$$n \geq \frac{1.645^2 * 67,146 * 0.176}{(67,146 - 1) \times 0.1^2 + 1.645^2 \times 0.176}$$

In next step, the total number of stoves to be sampled from each strata have been calculated using equation below<sup>20</sup>:

$$n_i = \frac{g_i}{N} \times n$$

Where:

$n_i$  = Sample size of the  $i^{th}$  strata where  $i = a, ..., k$

The resulting sampling sizes for  $N_{y,i,j}$  parameter is calculated for Stratas as shown below:

Strata No.	Strata Type	Sample Size	Population Size	Sample Size(rounded up) inclusive of 30% non response
<b>Strata 1</b>	Kuniokoa Stoves in eastern region of Cambodia	7	8,609	10
<b>Strata 2</b>	Naga Stoves in eastern region of Cambodia	7	8,609	10

<sup>20</sup> Equation 50 , Guidelines for Sampling and Surveys in CDM Project Activities and Programme of Activities (version 04.0)

<b>Strata 3</b>	Kuniokoa Stoves in North-western region of Cambodia	2	2,272	3
<b>Strata 4</b>	Naga Stoves in North-western region of Cambodia	3	3,733	5
<b>Strata 5</b>	SSM S32-X Stoves in North-western region of Cambodia	2	1,461	3
<b>Strata 6</b>	Kuniokoa Stoves in Mekong Lowlands	16	21,231	23
<b>Strata 7</b>	Naga Stoves in Mekong Lowlands	16	21,231	23

Table 11: Results- Strata wise sample size values for  $N_{y,i,j}$  parameter

### Mean value parameter

To estimate the sample size for mean value parameter, the following equation<sup>21</sup> is used in line with section 5.3 of the VCS PD:

$$n \geq \frac{1.645^2 NV}{(N-1) \times 0.1^2 + 1.645^2 \times V}$$

Where=

$$V = \left( \frac{SD}{p} \right)^2$$

n=Sample size

N= Population size (Total number of ICS)

p= Weighted overall expected proportion

SD<sup>2</sup> = Weighted overall expected variance

1.645= Represents the 90% confidence required

The calculation of the required sample size for  $B_{y=1,new,i,j,survey}$  parameter in this monitoring period is illustrated below.

<sup>21</sup> Equation 21 of Appendix 3, Guidelines for Sampling and Surveys in CDM Project Activities and Programme of Activities (version 04.0)

Input	Value	References
The population size N is	1461	Number of SSM S32-X stoves registered in north western region of Cambodia as per database
The expected mean is	3.13	Based on first monitoring survey results for 10030 Cambodia CPA A
The expected SD is	1	assumption
V	0.1021	Calculated
Sample size	27.13	Calculated
Sample size (rounded up)	28	calculated

The resulting sample size of 28 stoves is calculated as:

$$n \geq \frac{1.645^2 * 1,461 * 0.1021}{(1,461 - 1) \times 0.1^2 + 1.645^2 \times 0.1021}$$

As per the sampling and surveys for CDM project activities and programmes of activities standard V 9.0<sup>22</sup> If the sample size calculation returns a value of less than 30 samples, a minimum sample size of 30 shall be chosen when the parameter of interest is a proportion. If the parameter of interest is a numeric mean value (i.e. not a proportion or percentage) the Student's t-distribution shall be used if the resulting sample size is less than 30.

The number of samples that are required to meet the 90/10 reliability is:

$$n = \left( \frac{1.645 * SD}{0.1 * mean} \right)^2$$

where  $t_{n-1}$  is the value of the t-distribution for 90% confidence when the sample size is n. Since the sample size is not known yet, the first step is to use the value for 90% confidence when the sample is large, i.e., 1.645 and then redefine the calculation.

$$n = \left( \frac{1.645 * 1}{0.1 * 3.13} \right)^2$$

This gives n = 27.62 which rounds up to 27.

The calculation now needs to be repeated using the t-value for 90% confidence and n=27.

<sup>22</sup> [https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth\\_Stan05.pdf](https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth_Stan05.pdf)



The exact figure for this t-value can be acquired from any set of general statistical tables or using standard statistical software. For a sample size of 27 the value is 1.703( $t_1$ ).

$$n = \left( \frac{1.703 * 1}{0.1 * 3.13} \right)^2$$

The calculation now gives  $n = 29.62$ , which rounds up to 30.

The process should be iterated until there is no change to the value of  $n$ . Here the repeat calculation would have a t-value of 1.699 ( $t_2$ ).and the calculation would yield  $n = 29.47$ , which would be rounded up to 30.

The process should be iterated until there is no change to the value of  $n$ . The repeated calculation of sample size thus produces a sample size of 30.

The resulting sampling sizes for parameter  $B_{y,new,survey}$  is calculated for strata as shown below:

Strata	Strata details	Population Size	Sample Size	Sample Size (rounded up) inclusive of 25% non responses
North - Western	SSM-NW	1,461	30	40

Table 12: Results- Strata wise sample size values for  $B_{y,new,survey}$  parameter

In line with the Standard for sampling and surveys for CDM project activities and programme of activities, as there were two parameters to be estimated, sample size calculations have been carried out for each of the parameter separately by the Project Proponent.

PP would like to clarify that the required sample size was calculated separately for both the monitoring parameters  $N_{y,i,j}$  (refer sample size column in Table 11) and  $B_{y=1,new,i,j,survey}$  (refer sample size column in Table 12). Thereafter, the sampling effort and survey is repeated for each parameter for the sample size of  $N_{y,i,j}$  and  $B_{y=1,new,i,j,survey}$ . To account for non-responses due to non-availability of HH, 30% non-response rate was considered for providing samples to the monitoring survey team.

However, survey team was instructed to stop the survey, as soon as the required sample size (as per sample size column under table 11 and table 12) is met. For example, under Strata -1, the required samples of Kuniokoa Stoves to be surveyed in eastern region was 7. During the monitoring survey, the survey team completed the survey for the required 7 Kuniokoa stoves (excluding the non-response). Once the required sample size was met; the team stopped and did not conduct any further survey on the rest of the stoves.

Further, the survey team was instructed to conduct survey only on the sample stove (Kuniokoa or Naga stove) in the household as per the sample list. For example, under strata -2, survey forms have been filled only for sample Naga stoves at household level. Similarly, under strata 3, survey forms have been filled only for sample Kuniokoa stoves at household level.

The number of surveyed samples as per the required sample size have been summarised in Table 13 and Table 14 below.

Step 5 involved monitoring analyses and accuracy and precision checks. The project proponent scrutinized the monitoring data to confirm accuracy of results, analyzed the data, and estimated the resulting emissions reductions outlined in this monitoring report.

The following parameters was obtained through sampling:

1.  $N_{y,i,j}$ : Number of stoves in operation
2.  $By=1,new,i,j,survey$  - Amount of wood consumed in project stoves

The sample survey was conducted from February 27-February-2023 to 14-March-2023. The sampling personnel were trained to do the survey, and training records have been submitted to the VVB. To ensure quality, the survey was done through an application that has some prefixed parameters (i.e., geo-coordinates) to minimize the error. After completing the monitoring survey, confidence and reliability calculations have been done to assure the quality of the survey result.

The following tables summarizes the monitoring survey analysis results:

Sample Statistics Summary- $N_{y,i,j}$					
Stove Type	Strata	Required Sample Size	Surveyed Samples	$N_{y,i,j}$	Precision achieved
Kuniokoa	Strata-1	7	7	1.00	0.00%
	Strata-3	2	2		
	Strata-6	16	16		
Naga	Strata-2	7	7	1.00	0.00%
	Strata-4	3	3		
	Strata-7	16	16		
SSM-S32-X	Strata-5	2	2	1.00	0.00%

Table 13: Data Analysis Results for parameter  $N_{y,i,j}$

Summary- $By=1,new,i,j,survey$					
Stove Type	Strata	Sample Size	Surveyed Samples	$By=1,new,i,j,survey$ (tonnes/per cookstove)	Precision achieved
SSM-S32-X	SSM-NW	30	30	1.1224	8.87%

Table 14: Data Analysis Results for parameter  $By=1,new,i,j,survey$

**Implementation and quality assurance and control and procedures used for handling any internal auditing performed and any non-conformities identified:**

Project proponent trained monitoring personnel on monitoring procedures, including provisions for maximizing response rates, documenting out-of-population cases, refusals and other sources of non-response. The monitoring survey included several questions to support the information on the key monitoring parameters. These included visual inspections to confirm stove use and

presence of baseline stoves, comments by surveyors, check of randomly selected households against actual household information, and refusal tracking. These strategies aimed at minimizing surveyor or non-response biases. The questionnaire was piloted in the field prior to implementation.

## 5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

### 5.1 Baseline Emissions

The improved cookstove is introduced as energy efficiency measure in the project, therefore equations 1 and 2 of the methodology have applied to calculate the net GHG emission reductions.

$$ER_y = \sum_i \sum_j ER_{y,i,j} \quad \text{Equation (1)}$$

Where:

- I = Indices for the situation where more than one type/model of improved cookstove is introduced to replace three-stone fire
- J = Indices for the situation where there is more than one batch of improved cookstove of type i
- $ER_y$  = Emission reductions during year y in t CO<sub>2</sub>e
- $ER_{y,i,j}$  = Emission reductions by improved cookstove of type i and batch j during year y in t CO<sub>2</sub>e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times (EF_{wf,CO_2} + EF_{wf,non\ CO_2}) \times N_{y,i,j} \times 0.95 \quad \text{Equation (2)}$$

Where:

- $B_{y,savings,i,j}$  = Quantity of woody biomass that is saved in tonnes per improved cookstove of type i and batch j during year y
- $f_{NRB,y}$  = Fraction of woody biomass that can be established as non-renewable biomass ( $f_{NRB}$ ) (0.97)<sup>23</sup>

<sup>23</sup> Value determined from survey methods

$NCV_{\text{wood fuel}}$	=	Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne) <sup>24</sup>
$EF_{\text{wf,CO}_2}$	=	CO <sub>2</sub> emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO <sub>2</sub> /TJ) <sup>25</sup>
$EF_{\text{wf,non CO}_2}$	=	Non-CO <sub>2</sub> emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO <sub>2</sub> /TJ) <sup>26</sup>
$N_{y,i,j}$	=	Number of improved cookstoves of type i and batch j operating during year y
0.95	=	Discount factor to account for leakage

To calculate  $B_{y,\text{savings},i,j}$ , we use equation 4 of the applied methodology<sup>27</sup>

$$B_{y,\text{savings},i,j} = B_{y=1,\text{new},i,\text{survey}} \times \left( \frac{\eta_{\text{new},y,i,j}}{\eta_{\text{old}}} - 1 \right)$$

Where:

$B_{y=1,\text{new},i,\text{survey}}$	Annual quantity of woody biomass used by improved cook stoves in tonnes, determined in the first year of the implementation of the project through a sample survey
$\eta_{\text{old}}$	Efficiency of baseline cookstove. A default value of 0.10 has been used as the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e., without a grate or a chimney.
$\eta_{\text{new},i,j}$	Efficiency of the improved cook stove determined using Equation 5 of the methodology.

$$\eta_{\text{new},y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$$

Where:

$\eta_p$	Efficiency of project stove (fraction) at the start of project activity
$(DF_n)^{y-1}$	Discount factor to account for efficiency loss of project cookstove per year of operation (fraction). default value of 0.99 efficiency loss per year has considered for the project activity
0.94	Adjustment factor to account for uncertainty related to project cookstove efficiency test

<sup>24</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 1 Introduction

<sup>25</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion

<sup>26</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion

<sup>27</sup> Equation 3 of methodology VMR0006, version 1.1

The full set of emission reductions calculation for Naga stove per HH and Kuniokoa stove per HH is provided in separate emission reduction excel spread sheet.

## 5.2 Project Emissions

The methodology does not account for project emissions separately, but instead quantifies net emission reductions achieved by the project.

## 5.3 Leakage

Leakage is considered as default 0.95 in accordance with methodology.

## 5.4 Net GHG Emission Reductions and Removals

PP has calculated the emission reduction for each cookstove installed under the grouped project separately. In this section example for ER Calculation of one Naga Stove (CQCKHVNS015361), one Kuniokoa stove (CQCKHVKN014096) and one SSM-S32-X stove (CQCKHVSM001489) is being provided:

### Kuniokoa Stove- Ex post calculation

#### For year 2022

**Date of installation:** 13-August-2022

For year 2022, Vintage 1:

Number of operational days of stove in the current Monitoring period: 141 (from 01-July-2022 to 31-December-2022)

Year Fraction= (141/365) = 0.3863

$B_{y=1,new,i,survey} = 1.1357 \text{ tonnes/year/stove}$

$\eta_{new,i,j} = 0.4822$

$B_{y,savings,i,j} = 1.1357 \text{ tonnes/year/stove} * ((0.4822/0.1)-1)$   
 $= 4.34 \text{ tonnes/year/stove}$

$ER_y = 4.34 \text{ tonnes/year/stove} * 0.95 * 0.0156 \text{ TJ/tonne} * (112 \text{ tCO}_2\text{e/TJ} + 26.23 \text{ tCO}_2\text{e/TJ}) * 1$   
 $* 0.97 * 0.3863$

$ER_{y,i,j} = 3.33 \text{ tCO}_2\text{e eq/yr}$

Net GHG emission reductions for total project activity instances corresponding to 32,112 Kuniokoa stoves under this grouped project are summarised below:

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
Year 2022 (01-July-2022 to 31-December-2022)	96,051	0	0	96,051

Comparison of Ex-ante emission reductions/removals and achieved emission reductions/removals for Kuniokoa Stove:

<u>Stove Model</u>	<u>Ex-ante emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Achieved emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
Kuniokoa Stove	89,856	96,051	6.89%	Actual ERs achieved are higher than ex- ante Emission Reductions for this monitoring period. This difference is as a result of a higher stove loss rate (10%) considered for the ex-ante emission reduction calculation. However, during a monitoring survey, 100% of stoves were found operational.

Table 15: Comparison of ex-ante and achieved ERR Values for Kuniokoa stove under MP 2

**Naga Stove- Ex-post calculation:**

**For year 2022:**

**Date of installation:** 13-August-2022

**For year 2022, Vintage 1:**

Number of operational days of stove in the current Monitoring period: 141 (from 01-July-2022 to 31-December-2022)

Year Fraction= (141/365) = 0.3863

$B_{y=1,new,i,survey} = 0.5898$  tonnes/year/stove

$\eta_{new,i,j} = 0.3290$

$B_{y,savings,i,j} = 0.5898$  tonnes/year/stove\* ((0.3290/0.1)-1)  
= 1.3506 tonnes/year/stove

$$ER_y = 1.3506 \text{ tonnes/year/stove} * 0.95 * 0.0156 \text{ TJ/tonne} * (112 \text{ tCO}_2\text{e/TJ} + 26.23 \text{ tCO}_2\text{e/TJ}) * 1 * 0.97 * 0.3863$$

$$ER_{y,i,j} = 1.04 \text{ tCO}_2 \text{ eq/yr}$$

Net GHG emission reductions for total project activity instances corresponding to 33,573 Naga stoves under this grouped project are summarised below-

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
Year 2022 (From 01-July-2022 to 31-December-2022)	29,956	0	0	29,956

Comparison of Ex-ante emission reductions/removals and achieved emission reductions/removals for Naga Stove:

Stove Model	Ex-ante emissions reductions/removals tCO <sub>2</sub> /annum	Achieved emissions reductions/removals tCO <sub>2</sub> /annum	Percent difference	Justification for the difference
Naga Stove	23,610	29,956	26.88%	Actual ERs achieved are higher than ex- ante Emission Reductions for this monitoring period. This difference is as a result of a higher stove loss rate (10%) considered for the ex-ante emission reduction calculation. However, during a monitoring survey, 100% of stoves were found operational.

Table 16: Comparison of ex-ante and achieved ERR Values for Naga Stove under MP 2

SSM-S32-X - Ex-post calculation:

For year 2022:

Date of installation: 23-December-2022

For year 2022, Vintage 1:

Number of operational days of stove in the current Monitoring period: 09 (from 01-July-2022 to 31-December-2022)

$$\text{Year Fraction} = (09/365) = 0.0247$$

$$B_{y=1,new,i,survey} = 1.1224 \text{ tonnes/year/stove}$$

$$\eta_{new,i,j} = 0.4952$$

$$B_{y,savings,i,j} = 1.1224 \text{ tonnes/year/stove} * ((0.4952/0.1)-1) \\ = 4.4356 \text{ tonnes/year/stove}$$

$$ER_y = 4.4356 \text{ tonnes/year/stove} * 0.95 * 0.0156 \text{ TJ/tonne} * (112 \text{ tCO}_2\text{e/TJ} + 26.23 \text{ tCO}_2\text{e/TJ}) \\ * 1 * 0.97 * 0.0247$$

$$ER_{y,i,j} = 0.22 \text{ tCO}_2 \text{ eq/yr}$$

Net GHG emission reductions for total project activity instances corresponding to 1,461 SSM-S32-X stoves under this grouped project are summarised below-

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
Year 2022 (From 01-July-2022 to 31-December-2022)	232	0	0	232

Comparison of Ex-ante emission reductions/removals and achieved emission reductions/removals for SSM-S32-X Stove:

<u>Stove Model</u>	<u>Ex-ante emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Achieved emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
SSM-S32-X Stove	199	232	16.58%	Actual ERs achieved are higher than ex- ante Emission Reductions for this monitoring period. This difference is as a result of a higher stove loss rate (10%) considered for the ex-ante emission reduction calculation. However, during a monitoring survey, 100% of stoves were found operational.

Table 16: Comparison of ex-ante and achieved ERR Values for Naga Stove under MP 2

Net GHG emission reductions for total project activity instances, i.e., Kuniokoa, Naga and SSM Stoves under this grouped project are summarised below-



Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
2022 (01-July-2022 to 31-December-2022)	126,239	0	0	126,239

<u>Stove Model</u>	<u>Ex-ante emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Achieved emissions reductions/removals tCO<sub>2</sub>/annum</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
Naga Stove, Kuniokoa (Ecoa Wood) Stove and SSM-S32-X	113,665	126,239	11.06%	Actual ERs achieved are higher than ex- ante Emission Reductions for this monitoring period. This difference is as a result of a higher stove loss rate (10%) considered for the ex-ante emission reduction calculation. However, during a monitoring survey, 100% of stoves were found operational.

Table 17: Comparison of ex-ante and achieved total ERR Values under MP 2

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
Year 2022 (01-July-2022 to 31-December-2022)	126,239	0	0	126,239
Total	126,239	0	0	126,239

# APPENDIX 1: <LIST OF ABBREVIATIONS >

*Use appendices for supporting information. Delete this appendix (title and instructions) where no appendix is required. CQC: C-Quest Capital*

IPCC: Intergovernmental Panel on Climate Change

ICS: Improved Cookstoves

MR: Monitoring Report

PP: Project Proponent

SDG: Sustainable Development Goal

SD VISta: Sustainable Development Verified Impact Standard

SEA: South-East Asia

VCS: Verified Carbon Standard

VCU: Verified Carbon Unit

## APPENDIX 2: REQUIREMENTS UNDER SECTION 1.10 OF MR

The screenshots of the emails sent to stove manufacturers to avoid double claiming of Scope 3 Emissions under this grouped project are provided below:

**From:** Bhaskar Jyoti Nath  
**Sent:** Thursday, February 9, 2023 12:41 PM  
**To:** Mark Connor <mark.connor@burnmfg.com>  
**Cc:** Jason Steele <jsteele@CquestCapital.com>  
**Subject:** Cleaner Cooking Solutions Program (VCS 2409)

Dear Mark,

This is to bring to your kind notice that C-Quest Capital SGT Asia Stoves Private Limited is implementing a grouped project titled Cleaner Cooking Solutions Program (VCS ID 2409). It involves distribution of improved cook stoves (ICS) to households in Kingdom of Cambodia. For this purpose, we had procured Kuniokoa (Ecoa Wood) stoves from your manufacturing units.

Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals for which C-Quest Capital SGT Asia Stoves Private Limited will be claiming carbon credits under VERRA. The ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited.

This mail intends to apprise you about the project, to avoid any potential risk of double claiming of Scope 3 emissions under this grouped project.

Regards,  
**Bhaskar Jyoti Nath**  
Director – Operations (Southeast Asia)  
Phone: +91 9958195797 (IST UTC + 5:30)  
Email: [bnath@cquestcapital.com](mailto:bnath@cquestcapital.com)  
Website: [www.cquestcapital.com](http://www.cquestcapital.com)

**CQuestCapital**



\*CQC works flexibly across global time zones; if you are receiving this message outside of your normal working hours, please know there is no obligation to respond urgently.

Screenshot of email sent to representative from Kuniokoa stove manufacturing units

**From:** Bhaskar Jyoti Nath  
**Sent:** Thursday, February 9, 2023 12:46 PM  
**To:** Teune, Bastiaan <bteune@snv.org>  
**Cc:** Jason Steele <jsteele@CquestCapital.com>; Reaksmey Long <rlong@CquestCapital.com>  
**Subject:** Cleaner Cooking Solutions Program (VCS 2409)

Dear Mr. Bastiaan,

This is to bring to your kind notice that C-Quest Capital SGT Asia Stoves Private Limited is implementing a grouped project titled Cleaner Cooking Solutions Program (VCS ID 2409). It involves the distribution of improved cook stoves (ICS) to households in Kingdom of Cambodia. For this purpose, we have involved your organisation for supplying Naga Stoves to this project from the local manufacturers in Cambodia.

Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals for which C-Quest Capital SGT Asia Stoves Private Limited will be claiming carbon credits under VERRA. The ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited.

This mail intends to apprise you about the project, to avoid any potential risk of double claiming of Scope 3 emissions under this grouped project.

Regards,

**Bhaskar Jyoti Nath**

Director – Operations (Southeast Asia)

Phone: +91 9958195797 (IST UTC + 5:30)

Email: [bnath@cquestcapital.com](mailto:bnath@cquestcapital.com)

Website: [www.cquestcapital.com](http://www.cquestcapital.com)

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Screenshot of email sent to representative involved in local stove manufacturing units.

**From:** Bhaskar Jyoti Nath  
**Sent:** Monday, April 10, 2023 8:10 AM  
**To:** Darbo Wang <darbo85@vip.126.com>  
**Cc:** Jason Steele <jsteele@CquestCapital.com>  
**Subject:** Cleaner Cooking Solutions Program (VCS 2409)

Dear Darbo,

This is to bring to your kind notice that C-Quest Capital SGT Asia Stoves Private Limited is implementing a grouped project titled Cleaner Cooking Solutions Program (VCS ID 2409). It involves the distribution of improved cook stoves (ICS) to households in Kingdom of Cambodia. For this purpose, we are procuring SSM-S32-X stoves from your manufacturing units.

Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals for which C-Quest Capital SGT Asia Stoves Private Limited will be claiming carbon credits under VERRA. The ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited.

This mail intends to apprise you about the project, to avoid any potential risk of double claiming of Scope 3 emissions under this grouped project.

Regards,  
**Bhaskar Jyoti Nath**  
 Director – Operations (Southeast Asia)  
 Phone: +91 9958195797 (IST UTC + 5:30)  
 Email: [bnath@cquestcapital.com](mailto:bnath@cquestcapital.com)  
 Website: [www.cquestcapital.com](http://www.cquestcapital.com)

**CQuestCapital**



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Screenshot of email sent to representative representative from SSM stove manufacturing units

**From:** Bhaskar Jyoti Nath  
**Sent:** Thursday, February 9, 2023 12:42 PM  
**To:** Reaksmey Long <[rlong@CquestCapital.com](mailto:rlong@CquestCapital.com)>  
**Subject:** Cleaner Cooking Solutions Program (VCS 2409)

Dear Reaksmey,

This is to bring to your kind notice that C-Quest Capital SGT Asia Stoves Private Limited is implementing a grouped project titled Cleaner Cooking Solutions Program (VCS ID 2409). It involves the distribution of improved cook stoves (ICS) to households in Kingdom of Cambodia. For this purpose, we have involved your organisation for implementing the distribution and post distribution activities under this project.

Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals for which C-Quest Capital SGT Asia Stoves Private Limited will be claiming carbon credits under VERRA. The ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited.

This mail intends to apprise you about the project, to avoid any potential risk of double claiming of Scope 3 emissions under this grouped project.

Regards,  
**Bhaskar Jyoti Nath**  
 Director – Operations (Southeast Asia)  
 Phone: +91 9958195797 (IST UTC + 5:30)  
 Email: [bnath@cquestcapital.com](mailto:bnath@cquestcapital.com)  
 Website: [www.cquestcapital.com](http://www.cquestcapital.com)

**CQuestCapital**



\*CQC works flexibly across global time zones; if you are receiving this message outside of your normal working hours, please know there is no obligation to respond urgently.

Screenshot of email sent to representative of organization involved in distribution of stoves

# Public Notice for VCS Project 2409

## **“Cleaner Cooking Solution Program”**

This is to bring to your kind notice that C-Quest Capital SGT Asia Stoves Private Limited is implementing a grouped project titled “Cleaner Cooking Solution Program” (VCS ID 2409). It involves distribution of improved cook stoves (ICS) to households in Kingdom of Cambodia. For this purpose, we are procuring Kuniokoa (Ecoa Wood) from Burn Manufacturing, SSM S32-X from Zhejiang Huiwenmei stove Co., Ltd and Naga Stoves from local manufacturers of Cambodia. C-Quest Capital Cambodia (CQCC) is responsible for implementing the distribution and post distribution activities under this project.

Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals for which C-Quest Capital SGT Asia Stoves Private Limited will be claiming carbon credits under VERRA. The ownership of these credits lies exclusively with C-Quest Capital SGT Asia Stoves Private Limited.

This notice intends to apprise you about the project, to avoid any potential risk of double claiming of Scope 3 emissions under this grouped project.

Screenshot of Public Statement on C-Quest Capital Website<sup>28</sup>

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<sup>28</sup> <https://cquestcapital.com/latest/public-notice/>