Verification and certification report form for Gold Standard programme of activity

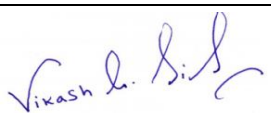
BASIC INFORMATION	
Title and GS reference number of Programme of activity	Improved Kitchen Regimes Multi- Country PoA, (GS1247)
Scale of the project activity	☐ Large-scale ☐ Small-scale ☒ Micro-Scale
Version number of the verification and certification report	01
Completion date of the verification and certification report	26/10/2023
Monitoring period number and duration of this monitoring period	Monitoring period Number 4th GS6518: 01/09/2021 – 31/08/2022 VPA 142 Manicaland Safe Water (including both the days) GS6519: 01/09/2021 – 31/08/2022 VPA 143 Manicaland Safe Water (including both the days) GS6520: 01/09/2021 – 31/08/2022 VPA 144 Manicaland Safe Water (including both the days) GS6521: 01/09/2021 – 31/08/2022 VPA 145 Manicaland Safe Water (including both the days) GS6522: 01/09/2021 – 31/08/2022 VPA 146 Manicaland Safe Water (including both the days) GS6523: 01/09/2021 – 31/08/2022 VPA 147 Manicaland Safe Water (including both the days)
Version number of the monitoring report to which this report applies	Version: 06 Dated: 10/10/2023
Crediting period of the project activity corresponding to this monitoring period	GS6518: 21/06/2018 – 20/06/2023 (including both the days) GS6519: 10/06/2018 – 09/06/2023 (including both the days) GS6520: 09/06/2018 – 08/06/2023 (including both the days) GS6521: 29/06/2018 – 28/06/2023 (including both the days) GS6522: 08/06/2018 – 07/06/2023 (including both the days) GS6523: 21/06/2018 – 20/06/2023 (including both the days)
Project representative(s)	George Syder- CO2 balance
Host Party	Zimbabwe
Applied methodologies and standardized baselines	Technologies and Practices to displace decentralized thermal energy consumption" methodology (TPDDTEC) v.1

<table>
<tr><td>Mandatory sectoral scopes</td><td colspan="3">03- Energy Demand</td></tr>
<tr><td>Conditional sectoral scopes, if applicable</td><td colspan="3">NA</td></tr>
<tr><td>Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD</td><td colspan="3">GS6518 : 10,000 tCO_2e
GS6519 : 10,000 tCO_2e
GS6520 : 10,000 tCO_2e
GS6521 : 10,000 tCO_2e
GS6522 : 10,000 tCO_2e
GS6523 : 10,000 tCO_2e

Total :60,000 tCO_2e</td></tr>
<tr><td>Certified amount of GHG emission reductions or GHG removals for this monitoring period</td><td colspan="3">GS6518 : 2,581 tCO_2e
GS6519 : 2,686 tCO_2e
GS6520 : 2,805 tCO_2e
GS6521 : 3,309 tCO_2e
GS6522 : 5,409 tCO_2e
GS6523: 3,681 tCO_2e

Total: 20,471 tCO_2e</td></tr>
<tr><td>SDG Impacts:</td><td>SDGs</td><td>Values estimated in ex ante calculation of approved PDD for this monitoring period</td><td>Actual values[1] achieved during this monitoring period</td></tr>
<tr><td></td><td>SDG 13</td><td>GS6518: 10,000
GS6519: 10,000
GS6520: 10,000
GS6521: 10,000
GS6522: 10,000
GS6523: 10,000
Total: 60,000</td><td>GS6518: 2,581 (3,580)
GS6519: 2,686 (3,724)
GS6520: 2,805 (3,890)
GS6521: 3,309 (4,588)
GS6522: 5,409 (7,500)
GS6523: 3,681 (5,101)
Total: 20,471 (28,386)</td></tr>
<tr><td></td><td>SDG 3</td><td>All VPAs expected to reduce the percentage of households suffering from stomach related or water-borne illness by 50%</td><td>100% reduction in the percentage of households suffering from stomach related or water-borne illnesses more frequently than once every few months</td></tr>
<tr><td></td><td>SDG 5</td><td>All VPAs expected to reduce the time required to collect water by 40%</td><td>47.5% reduction in the time spent collecting water</td></tr>
<tr><td></td><td>SDG 6</td><td>The number of people expected to gain access to safe water due to the project is 13,260. Based on an additional 2,210 per VPA</td><td>Actual additional people with access to safe water (P_{access}):
GS6518: 1,217
GS6519: 1,167
GS6520: 1,202
GS6521: 1,251
GS6522: 1,474
GS6523: 1,370
Total: 7,681</td></tr>
<tr><td>Name and UNFCCC reference number of the VVB</td><td colspan="3">E-0052: Carbon Check (India) Private Ltd.</td></tr>
</table>

[1] Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

Name, position and signature of the approver of the verification and certification report	 Vikash Kumar Singh, Compliance Officer

SECTION A. Executive summary

Carbon Check (India) Private Ltd. (CCIPL) is performing the 4th periodic verification of the GS POA titled. "Improved kitchen Regimes Multi-country POA(GS1247)"

"GS1247 VPA 142 Manicaland Safe Water (GS6518)
GS1247 VPA 143 Manicaland Safe Water (GS6519)
GS1247 VPA 144 Manicaland Safe Water (GS6520)
GS1247 VPA 145 Manicaland Safe Water (GS6521)
GS1247 VPA 146 Manicaland Safe Water (GS6522)
GS1247 VPA 147 Manicaland Safe Water (GS6523)"

for the period 01/09/2021 – 31/08/2022 (inclusive of both dates) for all VPAs. The project activity involves rehabilitating non-functioning water points to provide villages with a source of safe water within the provinces of Zimbabwe. The start date of the project activity is.

GSID	Crediting period Start Date
GS6518	21/06/2018
GS6519	10/06/2018
GS6520	09/06/2018
GS6521	29/06/2018
GS6522	08/06/2018
GS6523	21/06/2018

According to the POA&VPA- DD /B03/ & MR /01/
"GS1247 VPA 142 Manicaland Safe Water (GS6518)
GS1247 VPA 143 Manicaland Safe Water (GS6519)
GS1247 VPA 144 Manicaland Safe Water (GS6520)
GS1247 VPA 145 Manicaland Safe Water (GS6521)
GS1247 VPA 146 Manicaland Safe Water (GS6522)
GS1247 VPA 147 Manicaland Safe Water (GS6523)"

the overall objective of the VPA is to contribute to the achievement of the Sustainable Development Goals (SDGs) under SDG 3, SDG 5, SDG 6, and SDG 13 by providing safe water, the project will ensure that households consume less solid fuel(firewood) during the process of water purification and as a result there shall be a reduction of carbon dioxide emissions from the reduction of combustion of firewood.

This report summarises the findings of the verification of the project, performed on the basis of Gold Standard for global goals (GS4GG) /B02/, as well as criteria given to provide for consistent project operations, monitoring and reporting and the subsequent decisions by the Gold Standard(GS). Verification is required for all registered GS project activities intending to confirm their achieved emission reductions and proceed with request for issuance of VERs. This report contains the findings and resolutions from the verification and a certification statement for the verified emission reductions.

Verification is the periodic independent review and ex-post determination of both quantitative and qualitative information by a Validation & Verification body (VVB), of the monitored reductions in GHG emissions under SDG 13 including the achievement of other SDGs mentioned above that have occurred as a result of the project activity during a defined monitoring period.

Certification is the written assurance by a Validation & Verification body (VVB) that, during a specific period, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and certify achievement of SDGs reported for the:

"GS1247 VPA 142 Manicaland Safe Water (GS6518)
GS1247 VPA 143 Manicaland Safe Water (GS6519)
GS1247 VPA 144 Manicaland Safe Water (GS6520)
GS1247 VPA 145 Manicaland Safe Water (GS6521)
GS1247 VPA 146 Manicaland Safe Water (GS6522)

GS1247 VPA 147 Manicaland Safe Water (GS6523)"
in the host country "Zimbabwe" for the period 01/09/2021 – 31/08/2022 (including both the days) for all VPAs.

The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data and used to confirm the reductions in anthropogenic emissions by sources, is sufficient, definitive and presented in a concise and transparent manner. CCIPL's objective is to perform a thorough, independent assessment of the registered project activity.

In particular, the monitoring plan, monitoring report and the project's compliance with relevant GS and Host Party criteria are verified in order to confirm that the component project has been implemented in accordance with the previously registered project design/B03/ and conservative assumptions, as documented. It is also confirmed if the monitoring plan is following the registered VPA-DD /B03/ and the approved monitoring methodology /B01/.

Scope:

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered VPA-DD /B03/
- To verify the implemented monitoring plan with the registered VPA-DD /B03/ and applied baseline and monitoring methodology /B01/.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that the reported emission reductions /02/ are complete and accurate in order to be certified.

Verification process:

The verification comprises a review of the monitoring report /01/ over the monitoring period from 01/09/2021 – 31/08/2022 and based on the registered VPA-DD /B03/ as part of the monitoring parameters and monitoring plan, emission reduction calculation spreadsheet /02/, monitoring methodology /B01/, and all related evidence provided by project participants.

Remote interviews and inspections are being performed during verification process.

On site visit exclusion justification In line with the guideline of GS4GG for microscale projects, the on-site visit is not necessary within three years of the last visit of the objective observer. As per the information provided by SustainCert in Exhibit-A/08/ the last site visit was conducted on 07/01/2022 Hence, in line with the requirement, the last objective observer report has been taken as the reference for the verification.
The collection of data for the sampling and survey of Improved Kitchen Regimes was done by Co2 balance UK Limited Implementation partners. The verification of baseline and survey data is done by the verification team as per the requirement of methodology and GS4GG guidelines.

Conclusion:

The verification team assigned by the Validation & Verification body (VVB) concludes that the monitoring report /01/, meet all relevant requirements of the Gold Standard (GS) as per the requirements of GS4GG /B02/. The verification has been conducted in-line with the GS4GG requirements.

The project activity was correctly implemented according to the selected monitoring methodology /B01/, monitoring plan and the registered VPA-DD /B03/. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. The following table provides the resulted emission reduction from the project as verified through the document review and remote interviews by the verification team.

VPA NO	2021 vintage	2022 vintage	VERs
VPA 142	864	1,717	2,581
VPA 143	900	1,786	2,686
VPA 144	940	1,865	2,805
VPA 145	1,113	2,196	3,309
VPA 146	1,824	3,585	5,409
VPA 147	1,234	2,447	3,681
TOTAL EMISSION REDUCTION	**6,875**	**13,596**	**20,471**

CCIPL as a Validation & Verification body (VVB) is therefore pleased to issue a positive verification opinion expressed in section F of this report.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interview	Verification findings
1.	Team Leader / Verifier / Technical Expert	IR	Sharma	Harish	CCIPL	X	N/A	X	X
2.	Trainee Assessor	IR	Yadav	Shalini	CCIPL	X	N/A	X	X
3.	Local Expert	ER	Liberty	Mandishona	CCIPL		X	X	

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g.,name of central or other office of VVB or outsourced entity)
1.	Technical reviewer	IR	S	Ranganathan	CCIPL
2.	Approver	IR	Singh	Vikash Kumar	CCIPL

SECTION C. Means of verification.

C.1. Desk/document review

The verification was performed based on the review of the Monitoring report /01/ and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology /B01/. Documents reviewed or referenced during the verification are listed in Appendix 3 of the report.

C.2. On-site inspection

The remote audit has been performed on 20/02/2023 to 24/02/2023. The Team leader along with Trainee Assessor and local expert has conducted the remote interview inspection and in particular the acceptance sampling.

Furthermore, VVB has considered Remote Audit Requirements and Procedures, version 1.0/B06/ for conducting the remote interview in accordance with the requirements provided in the §3.1.1(b) of the Remote Audit Requirements and Procedures, version 1.0 /B06/.

In line with 4.1.1 (b) of "Site visit and remote audit requirement and procedures", and in line with 2.2.3(i) of "Applicability of minimum site visit requirement by VVB"/B10-b/. In line with the guideline of GS4GG for microscale projects, the on-site visit is not necessary within three years of the last visit of the objective observer. Hence, considering 'Microscale Project Requirements' Section 11.1.2 /B10-1/. The impact assessment has been carried out to analyse the risk associated with the non-conduction of mandatory physical on-site inspection for verification which is in line with the Annex 1 Risk assessment guideline of "Site visit and remote audit requirement and procedures"/B06/ and the same is provided below.

Risk associated to the non-conduction of mandatory physical on-site inspection for verification.

Sr. No	Identification of potential risks	Mitigation measures	Risk Mitigated
1.	Risk associated to verify project implementation and operation with respect to the registered/included documents (PDD/PoA DD, CPADD)	During remote interviews by means of using audio/video call (as feasible) and real time photographs at the time of remote inspection, the name plate which includes capacities can be checked. Cross checking the same through other relevant documents such as statutory clearances. Logbooks can be checked randomly over video call/ by means of remote access, either synchronously (in real time) or asynchronously (when applicable) during remote inspection. screenshot of the logbooks can also be checked.	☒ Yes ☐ No
2	Risk associated to verify implemented monitoring plan with the registered/included documents (PDD/PoA-DD, VPA-DD) and applied baseline and monitoring methodology.	This risk can be mitigated by conducting remote interview via audio/video call with end users to cross check the Monitoring parameters described in certified versions of POA-DD / VPA-DD vis-à-vis their monitoring equipment/procedures and also to check records like logbooks, receipts and calibrations certificates etc.	☒ Yes ☐ No
3	Risk associated to verify that the actual monitoring systems and procedures comply with the monitoring systems and	This risk can be mitigated during remote interview video call/video recording/a real time photo of the monitoring	☒ Yes ☐ No

	procedures described in the monitoring plan.	equipment along with make and model, to check whether calibration of each of the measuring equipment is done at intervals specified in the registered document (PDD/PoA DD/VPA DD). Furthermore, this can be cross verified by reviewing of all the calibration certificates and taking note of the date of calibration on each one for each specific monitoring equipment. Interviewing the relevant personnel to ensure that the calibration procedures are being followed as per the registered monitoring plan.	
4	Risk associated to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance on whether the reported GHG emission reduction data is free from material misstatement.	The identified risk can be mitigated by managing access to the records during audio/video calls. It can be verified whether a project has adequate controls related to data changes/updates, version tracking, traceability, security and whether data is reproduceable from the sample sheets. Furthermore, data quality control personnel can also be interviewed to establish the level of assurance.	☒ **Yes** ☐ **No**
5	Risk associated to verify that reported GHG emission data is sufficiently supported by evidence.	The identified risk can be mitigated during remote interview by asking complete set of data for the monitoring period and Information provided in the monitoring report can be cross-checked with other sources such as electricity/heat sales receipts/log. To check whether, calculations of baseline emissions and emission reduction has been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology. Furthermore, appropriate/correct emission factor value has been applied or not.	☒ **Yes** ☐ **No**
6	Any outstanding FAR(s)/pending issue(s) since the previous physical site visit.	The identified risk is mitigated by reviewing the previous Verification report and found that 3 FARs is raised during last Monitoring Period. Which has been successfully closed during this verification.	☒ **Yes** ☐ **No**
7	Any gaps in monitoring data, if	As per the shared data no	☒ **Yes**

	any, that cannot be justified as per applicable requirements.	such gap exists for the proposed monitoring period.	☐ **No**
8	Any design change(s)/temporary deviation(s) since the previous physical site visit.	The identified risk is mitigated by reviewing the previous verification report and found that design change is not available.	☒ **Yes** ☐ **No**

C.3. Interviews

Interviews of borehole user was taken by a Verification team. All surveys were conducted in person and photos of end users with photo IDs and GPS coordinates were taken as records/10/. Submitted photos, snapshots, and ER sheets maintained of the site survey were checked by the verification team to confirm.

In line with the VV plan, the VVB team has interviewed the CME team members involved in the survey and the end users.

No.	Name	Organization	Date	Topic	Team member
/1/	George Syder	CO2 Balance UK limited	20/02/2023	•Discussion on the stated goal and policy of the PoA. •Discussion on the sustainability, environmental impact, local stakeholders meeting procedure, baseline scenario, additionality, monitoring plan, Start date. • Discussion on the GS registered VPA-DDs, eligibility criteria and its compliance, ongoing financial need, SDG impact, eligibility criteria for, safeguarding principles, stakeholder consultations and grievance mechanism in line with GS4GG, requirements.	Harish Sharma, Shalini Yadav, Mandishona Liberty

/2/	Tonderai Chikuni	In country partner- Diocese of Mutare Community Care Programme (DOMCCP)	20/02/2023	Discussion on the stated goal and policy of the PoA. •Discussion on the sustainability, environmental impact, local stakeholders meeting procedure, baseline scenario, additionality, monitoring plan, Start date. Discussion on the GS registered VPA-DDs, eligibility criteria and its compliance, ongoing financial need, SDG impact, eligibility criteria for, safeguarding principles, stakeholder consultations and grievance mechanism in line with GS4GG, requirements.	Harish Sharma, Shalini Yadav, Mandishona Liberty

List of HH surveyed by VVB.

Sl. no	Borehole Name	Name of interviewee	Date	Sample category	Audit team member
/01/	Zamuchiya B	Lucia Massa	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/02/	Mujeke	Birayi Dube	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/03/	chinyamagona	Mildret Machipanda	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/04/	chinyamagona	Cleve Masase	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/05/	chinyamagona	Brenda Moyo	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/06/	chinyamagona	Kudzai Nyahanana	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini yadav/ Mandishona Liberty
/07/	Mudzere	Charity Mutsvunguma	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/08/	Zvebocha	Tsitsi Nyaude	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini

					Yadav/ Mandishona Liberty
/09/	Mbire	Ester Vheyapi	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/10/	Mbire	Siria Simbini	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty
/11/	Zvebocha	Jane Munyikwa	20/02/2023-24/02/2023	Project/ Usage survey	Harish Sharma/Shalini Yadav/ Mandishona Liberty

A single borehole is used by multiple households. Hence more than one HH is interviewed for a single borehole.

C.5 Consideration of materiality in conducting the verification

The project is a Micro-scale, project activity achieving total emission reductions of < 10,000 tons of CO2e per year; as such, a 10 percent materiality threshold is applied. The threshold of materiality was evaluated based on §9.6.3 (d) of GS validation and verification Version 1.0. It was concluded that the materiality threshold applicable to the project activity based on actual emission reductions achieved is 10% of GS6518-GS6523: 10,000 tCO_2e for all VPAs each Which is equal to

GS6518:	2,581 tCO_2e
GS6519:	2,686 tCO_2e
GS6520:	2,805 tCO_2e
GS6521:	3,309 tCO_2e
GS6522:	5,409 tCO_2e
GS6523:	3,681 tCO_2e

Based on the above information, a risk analysis is carried out in the following activities:

1. Monitoring system including the data input procedure (including relevant personnel and applicable template forms used)

2. Copy of the agreement between household and Project Participant (s) (origin of data)

3. Water source unique ID system

4. ER sheet (application of data)

5. Data flow

6. Data control procedures

7. Monitoring survey records

In conducting the verification, VVB took cognizance of §9.6.3 (d) of GS validation and verification Version 1.0./B04-c/ and based on the input of data from different sources checked through a sampling of records. Data flow was checked through a comparison of data in hand-written forms, electronic database, and ER sheet /02/. The competence of the personnel involved in conducting the water quality testing, recording of data, and calculation of the emission reduction data has been checked by the verification team by means of a review of the training documents.

The risks identified can be mitigated through cross check with all sets of documents. The verification team performed the following checks to mitigate the effects of the above-identified sources of error:

Mitigation of Human error risks: The verification team mitigated the risk by checking the training records of the personnel and assessing their competencies, skills, monitoring/testing procedure followed, understanding of the monitoring survey forms, protocol and testing procedure, etc. Further, data was crosschecked with the ER calculation spreadsheet /02/ and the sample raw data.

Mitigation due to error in the Information system: Verification team by conducting remote interviews with the personnel responsible for such activities mitigated the risk due to errors in an information system. It was confirmed through interviews that the raw data is collected by the field personnel and then transmitted and stored electronically at CME's office. The data quality control is maintained by the CME.

Accuracy of the measuring equipment: The risk due to inaccuracy in measurements was mitigated by reviewing the calibration certificates of all the project equipment.

Competence of personnel involved in conducting standardized tests: Verification team has reviewed the abilities, qualifications, and recognition of involved personnel and institutions of the measuring team. The tests/procedures have been carried out by well-trained personnel. The training certificate of the personnel has been provided to the verification team in this respect.

Mitigation due to an error in Sampling: The verification team mitigated the risk by checking the list of random samples generated for monitoring surveys for VPAs, and the sample size calculation sheet.

In conducting the verification, VVB took cognizance of §9.6.3 of GS validation and verification Version 1.0/B04-c/. and based on the input of data from different sources checked through sampling records.

Based on the assessment carried out, CCIPL confirms with a reasonable level of assurance that the claimed emission reductions are free from material errors, omissions, or misstatements

C.4. Sampling approach

As the target population is homogeneous, PP has proposed a simple random sampling plan using 90/30 as confidence/precision. This is in line with the applied methodology TPDDTEC version 01 /B01/. The sample size for each parameter is determined following guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB86, Annex 4) /B04-b/.

In line with paragraph 26 of the Sampling and surveys for CDM project activities and programmes of activities, version 09 /B04-a/, the verification team has applied acceptance sampling approach through remote interviews on the monitoring survey as part of verification. The project participant had applied sampling approach /03/, conducted by the representatives of project participant. The verification team has chosen acceptance sampling in accordance with paragraph 28 of the Sampling and surveys for CDM project activities and programmes of activities version 09/B04-a/.

Applying paragraph 39 (c) of the Sampling and surveys for CDM project activities and programmes of activities, version 09 /B04-a/, a sample size of 11 households was chosen (with no discrepant records). A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%; producer risk 5% and consumer risk of 20 % each in determining the VVB's sample size Acceptance number (c) thus determined for the sample is 0. However, VVB interviewed 11 samples from the baseline survey done by project participants.

The information provided in the monitoring survey, has been cross checked during the remote interview. As a part of acceptance sampling, the Verification team could confirm the monitoring survey data with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the Sampling and surveys for CDM project activities and programmes of activities, version 09 /B04-a/.

Parameter	Verification approach	Population (for VVB's sample)	VVB's Sample Size

Usage surveys	ASP	100	11
Monitoring surveys	ASP	100	11
WCFT	ASP	40	11

The details of the sample interviewed are listed in section C.3 (under the list of interviewed persons). No discrepancy was found in any of the 11 samples and thus c=0, i.e., no discrepant records were observed. Thus, PP's set of records has been accepted in line with §33 of the Sampling and surveys for CDM project activities and programmes of activities (version 09.0) /B04-a/. For the impact parameters, questionnaire was prepared and was used during the survey by the PP. During the remote interviews, the verification team cross-checked these sample documents, and no discrepancies were found in the impact parameters as well. Furthermore, the training and competency of the personnel, who conducted such test were checked. /03/ They were also interviewed to ensure that the process, method used, and their competency to confirm such standardised test were appropriately applied. The sampling technique to draw such samples were found adequate and the sample collectors were found competent to perform the personnel interviewed.

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised.

The VVB has raised 04 clarifications (CLs), 15 corrective action requests (CARs) and 00 FARs are raised and closed successfully. Detail list of findings as provided in Appendix 4 of this document.

SECTION D. Verification findings

D.1. Remaining forward action requests from validation and/or previous verifications

FAR#1	**The PP must monitor the number of users as required by the methodology.**
PP assessment:	Household List recollection has been scheduled within the monitoring programme and collected annually.
VVB assessment:	VVB has assessed the WCFT records /03-c/and usage survey list/03-b/ from which monitoring for the number of users of each borehole in the project is found to be in line with registered PDD and methodology requirements of TPDDTEC v1.0

FAR#2	**PD to provide full transparency on maintenance programme roles and responsibilities. This should include: the process of recording and reporting all faults/breakdowns and when a borehole starts working again. It should also include a summary of all planned annual. Maintenance tasks and the downtime expected for these tasks**
PP assessment:	Section B.1 has been updated to include a description of the maintenance programme, including data collection procedures, including all faults recorded throughout the monitoring period
VVB assessment:	VVB has assessed the grievance logbook and maintenance record/09/ on a sample basis, furthermore CME has provided detailed description on maintenance programme roles and responsibilities, and they have been deemed suitable and satisfactory to VVB.

FAR#3	**PD to update their usage survey format to capture seasonality and supply a copy for SustainCert approval prior to conducting the study.**
PP assessment:	A new usage survey has been implemented in this project, with confirmation of seasonality from SustainCert provided to the VVB
VVB assessment:	The VVB has examined the document titled"UsageSurveySCConfirmation_v2.png" /05/where the SC has approved the cap of 95% in case the results for seasonality aspect in usage survey is more than 95%. VVB has verified that the CME has used the approved cap of 95%.

D.2. Compliance of the project implementation and operation with the registered project design document

D.3. Post-registration changes

>>

Not applicable

D.3.1. Corrections

>>

Not applicable

D.3.2. Changes to the start date of the crediting period

>>

Not applicable

D.3.3. Inclusion of a monitoring plan

>>

Not applicable

D.3.4. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

>>

Not applicable

D.3.5. Changes to the project design

>>

Not applicable

D.3.6. Changes specific to afforestation and reforestation project activities.

>>

Not applicable

D.4. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents.

Means of verification	Document Review, Interview
Findings	CAR 01 and CAR 06, has been raised during this verification and has been closed successfully
Conclusion	The verification team has checked the actual monitoring plan against the registered monitoring plan and monitoring methodology /B01/. and applicable tools /B11/. Furthermore, the verification team has checked monitoring system by means of comparison with the information given in the monitoring plan and monitoring methodology. The monitoring plan is completely in accordance with the approved methodology /B01/ applied by the registered VPA-DD/B03/.

D.5. Compliance of monitoring activities with the registered monitoring plan

D.5.1. Data and parameters fixed ex ante or at renewal of crediting period.

Means of verification	Document Review, Interview
Findings	CAR 11 has been raised and closed successfully during this verification
Conclusion	Verification team confirms that the data and parameters fixed ex ante are in compliance with the registered VPA-DD /B03/ and monitoring plan. Please refer to the Annex 1.

D.5.2. Data and parameters monitored.

Means of verification	Document Review, Interview
Findings	CAR 10, CAR 14 and CAR 15 has been raised during this verification and successfully closed.
Conclusion	The verification team confirms that the data and parameters monitored are in compliance with the registered VPA-DD /B03/ and the monitoring plan. It is confirmed that the verification team assessed the data / information flow from the point of monitoring to emission reduction calculation and found no gap in the same. Please refer to the Annex 2.

D.5.3. Implementation of sampling plan

Means of verification	Document Review, Interview
Findings	CAR12 has been raised during this verification and closed successfully.
Conclusion	The verification team has checked the sampling plan and considered appropriate for all the surveys and field tests done: Project Survey, Water Consumption Field Test (WCFT), Water Quality Tests (WQT), and Annual Usage Survey. The parameters assessed during the sampling are: • Usage rate in project scenario (Up,y) • Quantity of safe water supplied in the project scenario (Qp,y) • Quantity of safe water boiled in the project scenario (Qp,cleanboil,y) • The raw of unsafe water that is still boiled after installation of the water treatment technology (Qp, raw,y) • Project time spent collecting water and firewood per household per trip. (TPy) • Uses of time saved which was previously spent on water collection. (TRy) • WASH training

	In accordance with the Gold Standard methodology “Technologies and Practices to Displace Decentralized Thermal Energy Consumption” (TPDDTEC v1), survey samples are randomly selected from the user record using a random sample group (RSG). A random number generator ranks the unique serial numbers of the boreholes in the project, generating the RSG which satisfies 90/30 precision.
	Each user in the RSG is assigned a unique random number from which survey participants are selected in accordance with the minimum sample size and confidence requirement for each survey. The RSG and survey participants are reselected for every monitoring period to ensure the selection remains random. The project proponent has elected to cross-sample technologies across all its homogenous water points VPAs located within the project area. Sampling method: Simple random sampling method is adopted as the target population is homogeneous. The sample size is determined by the requirement to achieve 90/30 precision, in line with the methodology for annual survey. Sampling approaches followed the GS4GG Methodology “Technologies and Practices to Displace Decentralized Thermal Energy Consumption” (TPDDTEC), version 01 project surveys carried out using representative and random sampling. The sample size is determined in line with the methodological minimum sample size and confidence requirements. The sample size included all households and was randomly sampled from a list of all the project water point system in the project and in line with the minimum sample size requirements as defined by the methodology and certified VPA -DD. Project proponent had selected 100 users for the Project Survey and Usage Survey and 40 users were randomly selected for WCFT. Acceptance sampling method has been adopted by the VVB for verification. Applying paragraph 39 (c) of the Sampling and surveys for CDM project activities and programmes of activities, version 09 /B04-a/, a sample size of 11 households was chosen (with no discrepant records). A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%; producer risk 5% and consumer risk of 20 % each in determining the VVB’s sample size Acceptance number (c) thus determined for the sample is 0. However, for acceptance sampling, VVB has interviewed 11 respondents which were subjected to both Project/usage survey and WCFT as resulted in an acceptance sample of 11 for the Project/usage survey and 11 for the WCFT. Please refer to the table in section C.3 which lists the households surveyed by VVB for the random sampling. For the usage and project surveys, 11users were interviewed, while 11 respondents were interviewed from the WCFT list.

D.6. Compliance with the calibration frequency requirements for measuring instruments.

Means of verification	Document Review, Interview
Findings	NA
Conclusion	N/A since there is no monitoring equipment which require calibration as per the monitoring plan. The tool used for the monitoring consists of reviewing the documents and remote interviews.

D.7. Assessment of data and calculation of emission reductions or net removals

D.7.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	Document Review, Interview

Findings	No Finding Raised
Conclusion	**Baseline Emission(BE):** BEb,y = Bb,y ∗ ((fNRBy ∗ EFb,fuel,co2) + EFb,fuel,nonco2) ∗ NCVb,fuel Where: Bb,y = Np,y * Pb,y (4)

Where:

Np,y: Project technology-days in the project database for project scenario p through year y

Pb,y: Specific fuel consumption for an individual technology in baseline scenario b during year y converted to tons/day

$BE_{b,y}$: - Emissions for baseline scenario b during the year y in tCO_2e

$B_{b,y}$: - Quantity of fuel consumed in baseline scenario b during year y, in tons, as per by-default factors.

GS ID	Bby 2021	Bby 2022	Total Bby
GS6518	508	1,010	1,518
GS6519	529	1,050	1,579
GS6520	553	1,097	1,650
GS6521	655	1,291	1,946
GS6522	1,073	2,108	3,181
GS6523	726	1,439	2,165

$fNRB_y$: - Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass (fNRB=0.97 default value from CMD tool 30 version 03 has been considered.)

$NCVb_{,fuel}$: - Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/ton)

$EF_{b,fuel,co2}$: - CO_2 emission factor of the fuel that is substituted or reduced. 112 tCO2/TJ for Wood/Wood Waste

$EF_{b,fuel,nonco2}$: - Non-CO_2 emission factor of the fuel that is substituted or reduced ($EF_{b,fuel,nonco2=}$ 9.42 This value corresponds with updated AR5 GWP value)

The baseline GHG reduction $BE_{b,y}$ [2]=

GS ID	BEby (2021)	BEby (2022)	Total BEby
GS6518	936	1,860	2,796
GS6519	975	1,934	2,909
GS6520	1,018	2,020	3,038
GS6521	1,206	2,378	3,584
GS6522	1,975	3,882	5,857
GS6523	1,336	2,650	3,986

[2] Beby values applicable for Monitoring Period 1 i.e, 06/10/2020-06/10/2022 (24 Months)

	The verification team confirms that the calculation of BEb,y is in accordance with the applied methodological equation and the registered VPA-DD/B03/. Calculations have been checked and confirmed from the ER spread Sheet /02/.

D.7.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	Document Review, Interview
Findings	No finding raised
Conclusion	Project Emission(PE): PEp,y = Bp,y * ((fNRBy * EFp,fuel,co2) + EFp,fuel,nonco2) * NCVp,fuel Where:

Bp,y = (1 – Cj) * Np,y * Wp,y * (Qp,rawboil,y + Qp,cleanboil,y)

Where:

Np,y :Project technology-days in the project database for project scenario p through year y

VPA NO	PTDs
GS6518	451,422
GS6519	432,432
GS6520	445,536
GS6521	461,842
GS6522	541,500
GS6523	507,585

Cj: Expressed as a percentage, the portion of users of the project technology j who in the baseline were already consuming safe water without boiling it.(Cj=0.0176 fraction)

Wpy: Quantity of wood fuel or fossil fuel that is used to treat 1 litre of water in the project scenario p during year y.(Wpy=0.0004 T/L)

Qp, rawboil,y : The raw of unsafe water that is still boiled after installation of the water treatment technology.(Qp, rawboil,y =0)

Qp,cleanboil,y : Quantity of safe water boiled in the project scenario p during the year y using the zero or low emissions clean water supply technology. (Qp,cleanboil,y =7.5 L/pd)

$PE_{p,y}$: - Emissions for project scenario p during the year y in tCO_2e

$B_{p,y}$: - Quantity of fuel consumed in project scenario p during year y, in tons, as derived from the statistical analysis conducted on the data collected during the project performance field tests (cases when no baseline performance field test are performed, e.g. by-default baseline factors).

The value of Bp,y is equal to zero as the Quantity of raw or unsafe water that is still boiled after installation of the water treatment technology and Quantity of safe water boiled in the project scenario p during the year y using the zero or low emissions clean water supply technology are zero.

$fNRB_{,y}$: - Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass

	$NCV_{p,fuel}$: - Net calorific value of the project fuel (IPCC default for wood fuel, 0.0156 TJ/ton). This is equal to the baseline fuel NCV in projects which use the same fuel $EF_{p,fuel,co2}$: - CO_2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel, 112 tCO_2/TJ for Wood/Wood Waste $EF_{p,fuel,nonco2}$: - Non-CO_2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel. Project Emission (PE) = 0 tCO_2e for all VPAs The project of activity is a Improved Kitchen Regimes Multi- Country project which involves no project emission. Furthermore, this is in line with the applicable applied methodology, Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v.1

D.7.3. Calculation of leakage GHG emissions

Means of verification	Document Review, Interview
Findings	No finding raised
Conclusion	This project is not marketing efficient technology; it is eliminating the need for a fuel-based technology to deliver pure water. Lower emission technology substitution within households is therefore not possible and this leakage source can therefore be discounted. So, it is established that the leakage for this project is zero reference Annex 2,

D.7.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	Document Review, Interview
Findings	CAR 01 , CAR 02 , CAR 09, and CAR 13 has been raised and successfully closed during this verification.
Conclusion	When the baseline fuel and the project fuel are the same and the baseline emission factor and project emission are considered the same, the overall GHG reductions achieved by the project activity in year y are calculated as follows: ERy = ∑b,p (Np,y* Up,y* Pp,b,y* NCVb, fuel * (fNRB,b, y * EFfuel, CO2 + EFfuel, nonCO2))– ∑ LEp,y ERy= (∑BEb,y- ∑Pp,y)* Up,y- ∑LEp,y Where: ∑b,p : - Sum over all relevant (baseline b/project p) couples $N_{p,y}$: - Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y $U_{p,y}$: - Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction) $P_{p,b,y}$: - Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/day, as derived from the statistical analysis of the data collected from the field tests f $NRB_{,b,y}$: - Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario) $NCV_{b,fuel}$: - Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/ton)

	$EF_{b,fuel,CO2}$: - CO_2 emission factor of the fuel that is substituted or reduced. 112 tCO2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel $EF_{b,fuel,nonCO2}$: - Non-CO_2 emission factor of the fuel that is reduced $LE_{p,y}$: - Leakage for project scenario p in year y (tCO_2e/yr) As mentioned in section D.7.1, D.7.2 and D.7.3 above, the resulted emission reduction for the monitoring period is see the below table.

VPA NO	2021 vintage	2022 vintage	VERs
VPA 142	864	1,717	2,581
VPA 143	900	1,786	2,686
VPA 144	940	1,865	2,805
VPA 145	1,113	2,196	3,309
VPA 146	1,824	3,585	5,409
VPA 147	1,234	2,447	3,681
TOTAL EMISSION REDUCTION	**6875**	**13,596**	**20,471**

The verification team confirms that the emission reduction calculations provided in the spreadsheet /02-c/ have been verified to be correct and in line with the registered VPA-DD /B03/.

D.7.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks and SDG impact estimates in registered PDD

Means of verification	Document Review, Interview
Findings	No Finding Raised
Conclusion	The ex-ante estimates value of the emission reductions for the monitoring period as per the registered VPA-DD /B03/ is 60,000 tCO_2e and the actual total resulted emission reduction for the monitoring period is 20,471 tCO_2e Refer the table in section D.7.4

SDG	Values estimated in ex ante calculation of approved PDD[3]	Actual values achieved during this monitoring period
13	GS6518: 10,000 tCO_2e GS6519: 10,000 tCO_2e GS6520: 10,000 tCO_2e GS6521: 10,000 tCO_2e GS6522: 10,000 tCO_2e GS6523: 10,000 tCO_2e **Total: 60,000 tCO_2e**	GS6518: 2,581 tCO_2e GS6519: 2,686 tCO_2e GS6520: 2,805 tCO_2e GS6521: 3,309 tCO_2e GS6522: 5,409, tCO_2e GS6523: 3,681 tCO_2e **Total: 20, 471 tCO_2e reduced emissions**
5	from PDD, all VPAs expected to reduce the time required to collect water by **40%**	**47.5%** reduction in the time spent collecting water

[3] VERs values is applicable for 1 Annual years (12Months)

	3	From PDD, all VPAs expected to reduce the percentage of households suffering from stomach related or water-borne illness by **50%**	**100%** reduction in the percentage of households suffering from stomach related or water-borne illnesses more frequently than once every few months.
	6	GS6518: 2,210 GS6519: 2,210 GS6520: 2,210 GS6521: 2,210 GS6522: 2,210 GS6523: 2,210 persons with access to safe water across all VPAs	GS6518: 1,217 GS6519: 1,167 GS6520: 1,202 GS6521: 1,251 GS6522: 1,474 GS6523: 1,370 **Total: 7,681** additional people with access to safe water.
	The emission reduction calculations provided in the spreadsheet /02/ have been verified to be correct and in line with the registered VPA-DD /B03/.		

D.7.6. Remarks on difference from estimated value in registered PDD

Means of verification	Document Review, Interview
Findings	CAR 05 has been raised and successfully closed during this verification
Conclusion	The ex-ante estimates value of the emission reductions for the monitoring period as per the registered VPA-DD /B03/ is 60,000 tCO_2e it is based on capping of each VPA @ 10,000 tCO_2e and the actual emission reductions achieved for the monitoring period Refer the table in section D.7.4 Ex-antes applied a conservative usage rate of 92.37%, whereas actual data shows usage is higher (capped at 95%). The estimated value (10,000 tCO_2e per VPA) is the same for the GS6518-23 as they are capped.

D.7.7. Remaining FAR from previous verification with VVB assessment

There are 03 FARs from the previous verification for VVB assessment which has been raised as CARs and successfully closed during this verification.

FAR#1	**The PP must monitor the number of users as required by the methodology.**
PP assessment:	Household List recollection has been scheduled within the monitoring programme and collected annually.
VVB assessment:	VVB has assessed the WCFT records /03-c/and usage survey list/03-b/ from which monitoring the number of users of each borehole in the project is found to be in line with registered PDD and methodology requirements of TPDDTEC v1.0 which deems appropriate to VVB.

FAR#2	**PD to provide full transparency on maintenance programme roles and responsibilities. This should include: the process of recording and reporting all faults/breakdowns and when a borehole starts working again. It should also include a summary of all planned annual. Maintenance tasks and the downtime expected for these tasks**
PP assessment:	Section B.1 has been updated to include a description of the maintenance programme, including data collection procedures, including all faults recorded throughout the monitoring period
VVB assessment:	VVB has assessed the grievance logbook and maintenance record/09/ on a sample basis, furthermore CME has provided detailed description on

	maintenance programme roles and responsibilities, and they have been deemed suitable and satisfactory to VVB.

FAR#3	**PD to update their usage survey format to capture seasonality and supply a copy for SustainCert approval prior to conducting the study.**
PP assessment:	A new usage survey has been implemented in this project, with confirmation of seasonality from SustainCert provided to the VVB.
VVB assessment:	The VVB has examined the document titled"UsageSurveySCConfirmation_v2.png" /05/where the SC has approved the cap of 95% in case the results for seasonality aspect in usage survey is more than 95%. VVB has verified that the CME has used the approved cap of 95%which deems acceptable to VVB.

SECTION E. Internal quality control

The final Verification report passed a technical review before being submitted to the Gold Standard. The technical review is performed by a technical reviewer qualified in accordance with CCIPL's qualification scheme for GS Validation and Verification.

SECTION F. Verification/Certification opinion

Carbon Check (India) Private Ltd. (CCIPL) has performed the 4th periodic verification of the registered GS PoA title: Improved kitchen Regimes Multi-Country (1247)
"GS1247 VPA 142 Manicaland Safe Water (GS6518)
GS1247 VPA 143 Manicaland Safe Water (GS6519)
GS1247 VPA 144 Manicaland Safe Water (GS6520)
GS1247 VPA 145 Manicaland Safe Water (GS6521)
GS1247 VPA 146 Manicaland Safe Water (GS6522)
GS1247 VPA 147 Manicaland Safe Water (GS6523)"

The verification team assigned by the VVB concludes that the project activity as described in the VPA-DD /B03/ and the Monitoring report /01/, meets all relevant requirements of the Gold Standard. The verification has been conducted in-line with the GS4GG requirements project activities /B02/.

Verification methodology and process

The Verification team confirms the SOW is signed /08/ between the VVB, Carbon Check (India) Private Ltd. and the Project Participant. The team assigned to the verification meets the CCIPL's internal procedures including the UNFCCC/GS requirements for the team composition and competence. The verification team has conducted a thorough contract review as per UNFCCC and CCIPL's procedures and requirements.

The verification has been performed as per the requirements described in the GS4GG and constitutes the review and completion of the following steps:

- Reviewing the VPA-DD /B03/, including the monitoring plan and the corresponding validation report.
- Desk review of the MR /01/ and other relevant documents including documents related to the project activities in emission reductions.
- Review of the applied monitoring methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption" Version 01 /B01/.
- Remote inspection (20/02/2023- 24/02/2023)
- Resolution of CARs and CLs raised during verification.
- Issuance of Verification Report

The project activity was correctly implemented according to selected monitoring methodology /B01/, monitoring plan and the registered VPA-DD /B03/. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the document review, the verification team confirms that the project activity

has resulted in the total of 20,471tCO_2e emission reductions (Refer the table in section D.7.4) during the reported monitoring period /01/.

This statement covers verification period from 01/09/2021 – 31/08/2022 (including both the dates).

The VVB has raised 04 clarifications, 15 corrective action requests and 00 forward action requests all of which are raised and closed successfully.

The VVB considers necessary to give reasonable assurance that reported GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology and the monitoring plan contained in the registered VPA-DD /B03/ are fairly stated.

The VVB, hereby certifies that the project activity, achieved emission reductions by sources of GHG equal to (Refer the table in section D.7.4) 20,471tCO_2e equivalent and all monitoring requirements have been fulfilled and is substantiated by an audit trail that contains evidence and records.

Appendix 1. Abbreviations

Abbreviations	Full texts
ASP	Acceptance Sampling Plan
BE	Baseline Emissions
CA	Corrective Action/ Clarification Action
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CH_4	Methane
CL	Clarification Request
CO_2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CTF	Carbon Transfer Form
EB	Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final Verification Report
GHG	Greenhouse gas(es)
GS	Gold Standard
GS4GG	Gold Standard for the Global Goals
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage Emissions
MP	Monitoring Period
MR	Monitoring Report
NA	Not Applicable
PE	Project Emissions
PP(s)	Project Participant(s)
PTD	Project Technology Days
QC/QA	Quality Control/ Quality Assurance
RCF	Repair Confirmation Form
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reduction
VVB	Validation & Verification body
WCFT	Water Consumption Field Test
WQT	Water Quality Test
SOW	Scope of Work
VV Plan	Validation and verification plan
SDG	Sustainable Development Goal
WCFT	Water consumption field test

Appendix 2. Competence of team members and technical reviewers

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Harish Sharma

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Mandishona Liberty

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☐ Validator	☐ Verifier	☐ Team Leader	☐ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Zimbabwe		

in the following Technical Areas:

☐ TA 1.1	☐ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
03rd May 2023

Expiry Date
02nd May 2024

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Mr. S. Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☒ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Appendix 3. Documents reviewed or referenced.

Sr. No.	Document
/01/	Monitoring Report version 06 Dated: 10/10/2023
/02/	Zimbabwe_MP4_ER_calcs_v5 Dated: 06/10/2023
/03/	a. Zimbabwe 2022 PS_v1 b. Zimbabwe 2022 US_v1 c. WCFT Survey_ Captured data April 2021 d. Manicaland Baseline survey e. Household list _MP4_V1
/04/	Records of WQTs report _Ministry of Health and childcare, Mutare district Zimbabwe _July – August 2022
/05/	"UsageSurveySCApproval"
/06/	"MutareBoreholesRehabConfirm" -RCF and CTF_ Village Administrator and CO_2 balance UK Ltd
/07/	Zimbabwe MP4 Random Sample April 22_July_v3 - process (CONFIDENTIAL)
/08/	GS6518-23_Manicaland _AR_2022_V1 (Signed)
/09/	Contract Details (SOW) – CCIPL and CO_2 balance UK Ltd dated: 09/12/2022
/10/	Grievance logbook CO2 balance.
/11/	Remote audit records

Background Documents

Ref no.	Reference Document
/B01/	Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v.1
/B02/	a. GS4GG Principles & Requirements (version 1.2) b. GS4GG Safeguarding principles & requirements, version 1.2 c. GS4GG Programme of activity requirements, version 1.2 d. GS4GG Community services activity requirements, version 1.2
/B03/	Gold Standard Project Design Document (GS1247_IKR_Micro_PoADD_CP2_v16_TRACKED.pdf) VPA DDs: VPA 142 Manicaland Safe Water (GS6518) _version 4 dated 26.11.2018 VPA 143 Manicaland Safe Water (GS6519) _version 4 dated 26.11.2018 VPA 144 Manicaland Safe Water (GS6520) _version 4 dated 26.11.2018 VPA 145 Manicaland Safe Water (GS6521) _version 4 dated 26.11.2018 VPA 146 Manicaland Safe Water (GS6522) _version 4 dated 26.11.2018 VPA 147 Manicaland Safe Water (GS6523) _version 4 dated 26.11.2018
/B04/	Standards: a. Sampling and surveys for CDM project activities and programmes of activities CDM sampling standard, version 09. b. Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0. c. GS Validation and Verification standard for project activities, version 01.0
/B05/	IPCC 2006, volume 2, chapter 1

/B06/	Site Visit and Remote Audit Requirements and Procedures, version 1.0
/B07/	IPCC Default emissions factor, EFDB Emission Factor Database.
/B08/	IPCC Default emissions factor: Non-CO_2 Emissions from Stationary Combustion.
/B09/	Weblink: 1. http://cdm.unfccc.int/ 2. https://www.goldstandard.org
/B10/	Rule update – 1) Micro -scale project requirement version 1.2 2) Applicability of minimum site visit requirement by VVB.
/B11/	CDM- TOOL 30- Calculation of the fraction of non-renewable biomass EB 108, Annex 11 (Version 3.0) - 2020

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. FARs from this verification

Not applicable

Table 2. CLs from this verification

CL ID	01	Section no.	Key Project Info	Date: 30/01/2023
Description of CL				
CME to clarify and provide the information communicated for changing the project representative different from the one represented in certified VPA DD.				
Project participant response				Date: 20/03/2023
Project Representative in VPA-DD is no longer an employee of CO2balance UK Ltd.				
Documentation provided by project participant				
NA				
GS VVB assessment				Date: 22/05/2023
VVB assessed the MR, for changing the project representative different from the one represented in certified VPA DD and found above CME clarification justified hence CL is closed.				

CL ID	02	Section no.	D.1	Date: 30/01/2023
Description of CL				
As per the certified GS VPA DD, the parameter "EFb,non co2" was fixed ex ante during design certification and should remain fixed throughout the crediting period. CME to justify the conservativeness of the choice of data and reason for applying different value of the ex-ante fixed parameter within the same crediting period				
Project participant response				Date: 20/03/2023
Please see parameter box 'Purpose of Data' for description. EFb,non co2 parameter has been altered as per Gold Standard guidance for vintages 2021 onwards reflecting the changes in the Global Warming Potential of Methane and Nitrous Oxide in the IPCC AR5.				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
As per the GS4GG rule update APPLICABILITY OF GLOBAL WARMING POTENTIAL FOR GOLD STANDARD FOR THE GLOBAL GOALS PROJECTS" stipulates in paragraph 2.1.1 All emission reductions and removals accrued by GS4GG projects and PoAs (micro, small and large scale) will be calculated by using the IPCC AR5 GWP values. This requirement will apply to all GS4GG projects and PoAs and shall enter into force from 01 January 2021 hence CL is closed.				

CL ID	03	Section no.	A.1	Date: 30/01/2023
Description of CL				
The latest version of all VPA DD in the GS database is version 4, CME to clarify the use of version 3 As the applicable version of the Monitoring Report.				
Project participant response				Date: 20/03/2023
MR amended to PDD v4.				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
VVB has assessed the MR and found that the latest version of all VPA DD in the GS database version 4 has been updated by CME hence CL is closed.				

CL ID	**04**	**Section no.**	**E**	Date: 30/01/2023
Description of CL				
CME to clarify how they have considered BEby value as mentioned reference is not found in ER sheet.				
Project participant response				Date: 20/03/2023
Please clarify: BEb,y calculated in Row 27 of 'All VPAs' tab.				

Documentation provided by project participant	
NA	
GS VVB assessment	Date: 22/05/2023
VVB has assessed the MR and found that Beby value reference in MR is **in line** with ER sheet hence CL is closed.	

Table 3: CARs from this verification

CAR ID	01	Section no.	Key project Information (KPI)	Date: 30/01/2023
Description of CAR				
Under key project information, CME to mention the GS ID along with VPA number for all VPAs separately. CME to mention whether start and end days of the monitoring period are included in the VER calculation or not. CME to Mention the Abbreviation of the mentioned methodology with version.				
Project participant response				Date: 20/03/2023
Information included in Title of Project(s) MR updated; dates included in calculation. MR updated.				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
VVB has assessed the MR and found that under KPI section the following changes has been updated in MR by CME GS ID along with VPA number for all VPAs separately was included in the MR. CME has mentioned the start and end days of the monitoring period are included. CME has updated the MR with Abbreviation of the mentioned methodology along with version number. Hence CAR is closed.				

CAR ID	02	Section no.	Table 2	Date: 30/01/2023
Description of CAR				
Under table 2, **a)** Inconsistency in VPAs were found between ER sheet and Product Vintage table in the MR. CME to clarify how they have considered the values of Pacces same for both MP. Furthermore, provide data against it				
Project participant response				Date: 20/03/2023
a) No inconsistency found, please clarify Value of Paccess calculated annually, as MP is a year in length (01/09/2021 – 31/08/2022), Paccess and other values not tied to Number of Crediting Days are the same across vintages.				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
a) Upon evaluation, VVB has determined that the updated ER sheet and MR exhibit consistency. b) VVB has reviewed the response provided by CME and considers it acceptable. However, according to the template rule of GS4GG, CME is required to remove TRy, IRy, and Paccess from the product vintage table. The CAR will remain open until the necessary changes are made in the MR.				
Project participant response				Date: 14/09/2023
b) TRy, IRy, and Paccess have been removed from the vintage table				
Documentation provided by project participant				
Revised MR and ER sheet.				

GS VVB assessment	Date: 03/10/2023
Upon evaluating the revised MR and ER sheet, the VVB has observed that CME has updated the product vintage in Table 1 of the revised MR. CAR is closed.	

CAR ID	03	Section no.	A4.1	Date: 30/01/2023
Description of CAR				
Crediting period dates are not in line with the registered POA DD and GS impact registry project page. CME to correct the crediting period dates or if there is any change in start date of crediting period then same is to be reported in section B.2.3 and need to be updated in the GS impact registry project page.				
Project participant response				Date: 20/03/2023
Dates presented in the MR are correct, CME will engage with GS to correct dates on Impact Registry.				
Documentation provided by project participant				
NA				
GS VVB assessment				Date: 22/05/2023
The CAR will remain open until we receive an update from GS regarding the correction of the crediting period date.				
Project participant response				Date: 14/09/2023
Email confirmation of change has been submitted				
Documentation provided by project participant				
GS6518-23 Change of Crediting Period date on Registry.msg				
GS VVB assessment				Date: 03/10/2023
The VVB has reviewed the email confirmation received from sustainCert which was provided by PP and verified that the changes made to the dates for crediting period 1 in the requested VPAs on the SC platform are now consistent with MR. CAR is closed.				

CAR ID	04	Section no.	Not applicable	Date: 30/01/2023
Description of CAR				
CME to provide supporting evidence for following comments. a) CME to provide RCF form as proof of Rehabilitation was done for this project under section B.1 b) The date of submission of last annual report is mentioned as 03/03/2021. CME to share the last annual report submitted to GS under section Key project information. c) CME to provide Water Quality test and WCFT test report under section C. d) CME to share the user list for the verification of parameter (Np, y) under section D.2 e) CME to provide project survey data document under section E.5.1				
Project participant response				Date: 20/03/2023
a) Example RCFs uploaded. **b)** Latest Annual Report Uploaded, latest report now dated 16/12/2022. **c)** Example WQTs and WCFT uploaded. **d)** User List contained within Random Sample Process **e)** Project Survey Uploaded				
Documentation provided by project participant				
a) *ChipingeBoreholesRehabConfirm.pdf; MutareBoreholesRehabConfirm.pdf* ***b)*** *GS6518-23_Manicaland_AR_2022_v1[Signed].pdf* ***c)*** *ChipingeWQTJul_Aug2022.pdf; MutareWQTJul_Aug22.pdf; WCFT Survey_ Captured data April 2021.xlsx* ***d)*** *Zimbabwe MP4 Random Sample April 22_July_v2 – process (CONFIDENTIAL).xlsx* ***e)*** *Zimbabwe 2022 PS_v1.xlsx*				
GS VVB assessment				Date: 22/05/2023
VVB has assessed and review the above documents provided furthermore CME to provide *ChipingeWQTJul_Aug2022.pdf; MutareWQTJul_Aug22.pdf; WCFT Survey_ Captured data April 2021.xlsx* & *ChipingeBoreholesRehabConfirm.pdf; MutareBoreholesRehabConfirm.pdf* CAR will be open till the requested document received from CME.				
Project participant response				Date: 14/09/2023
All documents have now successfully been submitted.				

Documentation provided by project participant
a) *ChipingeBoreholesRehabConfirm.pdf; MutareBoreholesRehabConfirm.pdf* ***b)*** *ChipingeWQTJul_Aug2022.pdf; MutareWQTJul_Aug22.pdf; WCFT Survey_ Captured data April 2021.xlsx*
GS VVB assessment — Date: 03/10/2023
VVB has assessed the document provided by PP and found that. A) VVB has assessed the documents "2022_Zim_P2_Expansion_Rehab_Confirmation_Form" and concluded that Rehabilitation of the borehole is maintained through the kobo collect app and VVB has checked the RCF form on sample basis. B) The results of the water quality test report were found to meet the required standards and were deemed acceptable.

CAR ID	05	Section no.	B.1.1	Date: 30/01/2023
Description of CAR				
Under section B.1.1, **a)** CME to provide the Maintenance record for the reporting faults and breakdown against this FAR2. **b)** CME to provide approval copy from SustainCert against FAR 3.				
Project participant response — Date: 09/05/2023				
a) Maintenance Record included in most recent update of ER Calcs spreadsheet, monitoring report has been updated b) Approval has been uploaded				
Documentation provided by project participant				
a)MR/ER Calcs *b) UsageSurveySCConfirmation.png*				
GS VVB assessment — Date: 22/05/2023				
Upon reviewing ER sheet Version 4, VVB has identified inconsistencies between the Maintenance record tab and MR. Specifically, the total downtime values differ. Additionally, CME is requested to provide maintenance record logbooks as evidence, which are accessible in each village for further verification. Hence CAR is open for a VVB encountered difficulty in reading the *UsageSurveySCConfirmation.*png document and recommended resharing the record with appropriate visibility access to ensure its readability. CAR is open for b				
Project participant response — Date: 14/09/2023				
a) MR has been updated to match MR tab. Maintenance Record is collected via Kobo, screenshot of maintenance record on Kobo has been submitted (Please note that not all 234 submissions of this survey are related to this MP). This information is downloaded and processed into the data presented as the maintenance tab. Example logbook photos have also been submitted. b) A clearer version of the document has been uploaded				
Documentation provided by project participant				
a) ZimbabweKoboLog.png; ZimLogBook_Picture1.jpg; ZimLogBook_Picture2.jpg *b) UsageSurveySCConfirmation_v2.png*				
GS VVB assessment — Date: 03/10/2023				
a) VVB has assessed the grievance logbook and maintenance record on a sample basis, and they have been deemed suitable and satisfactory. CAR is closed. b) The VVB has examined the document titled "UsageSurveySCConfirmation_v2.png" where the SC has approved the cap of 95% in case the results for seasonality aspect in usage survey is more than 95%. VVB has verified that the CME has used the approved cap of 95%.				

CAR ID	06	Section no.	C	Date: 30/01/2023
Description of CAR				
As per the guideline, the Information used to demonstrate additionality, to describe the application of the selected methodologies, standardized baselines, and the other methodological regulatory documents				

and to support environmental impact assessments, is not considered proprietary or confidential. CME to clarify why user survey is marked as confidential. Moreover, as per the guideline CME to submit one more version of the document containing confidential information where all parts containing confidential/proprietary information are made illegible (e.g., by covering those parts with black ink).
Project participant response — Date: 20/03/2023
Non-confidential copy of the Project and Usage Surveys have now been uploaded with personal information of households removed. Confidential version is the full report but is not to be shared publicly.
Documentation provided by project participant
Zimbabwe 2022 PS_v1.xlsx *Zimbabwe 2022 US_v1.xlsx*
GS VVB assessment — Date: 22/05/2023
After evaluating the documents provided by CME, namely "Zimbabwe 2022 PS_v1.xlsx" and "Zimbabwe 2022 US_v1.xlsx," VVB found them to be in line with the concerns that were raised. VVB has thoroughly assessed these documents, and as a result, the CAR is now considered closed.

CAR ID	07	Section no.	D.2	Date: 30/01/2023
Description of CAR				
It is not clear from the survey questionnaire and survey data shared with VVB that how CME has estimated total reduction in time spent collecting water for project activity in year y (%).				
Project participant response — Date: 09/05/2023				
The value TRy is calculated using the equation TRy=(Tby-Tpy)/Tby value for Tpy taken from 'Zimbabwe 2022 PS_v1.xlsx' tab 'Report', Cell I5. Presented in hours (0.63 hrs = 37.8 minutes).				
Documentation provided by project participant				
Zimbabwe 2022 PS_v1.xlsx				
GS VVB assessment — Date: 22/05/2023				
After evaluating both the MR and ER sheet, VVB has determined that CME has correctly provided the TRy value, calculated using the equation TRy = (Tby - Tpy) / Tby, where Tpy is presented in hours (0.63 hrs = 37.8 minutes). calculation provided for TRy value has been confirmed, and as a result, the CAR is now considered closed.				

CAR ID	08	Section no.	NA	Date: 30/01/2023
Description of CAR				
CME to share the user list for the verification of parameter Np,y.(Np,y)				
Project participant response — Date: 20/03/2023				
User List within Random Sample Process				
Documentation provided by project participant				
Zimbabwe MP4 Random Sample April 22_July_v2 - process (CONFIDENTIAL).xlsx				
GS VVB assessment — Date: 22/05/2023				
After reviewing the document titled "Zimbabwe MP4 Random Sample April 22_July_v2 - process (CONFIDENTIAL).xlsx,"VVB has determined the selection of 100 samples from the usage/project survey. The CAR remains open as CME needs to incorporate the sampling process, including a detailed description of the process and method, into the ER sheet.				
Project participant response — Date: 14/09/2023				
As the Random Sample Process includes information about Project Participants, we cannot include this information in the ER calcs as this is a public document. This change would be in breach of Data Protection practice. The random sample document should be sufficient for review.				
Documentation provided by project participant				
NA				
GS VVB assessment — Date: 03/10/2023				
As considering ER sheet to be confidential CME has incorporated the sampling process, included a detailed description of the process and method into "Zimbabwe MP4 Random Sample April 22_July_v2 - process (CONFIDENTIAL)" hence CAR is closed.				

CAR ID	09	Section no.	ER spreadsheet	Date: 30/01/2023
Description of CAR				
Under the tab namely ' All VPAs" of ER spreadsheet, CME to update the source of values applied for all parameters.				

Project participant response	Date: 20/03/2023
Sources Updated	
Documentation provided by project participant	
Zimbabwe_MP4_ER_calcs_v4.xlsx	
GS VVB assessment	Date: 22/05/2023
VVB has assessed the ER sheet and found the CME has updated the source of values applied for all parameters. Hence CAR is closed.	

CAR ID	10	Section no.	D.2	Date: 30/01/2023
Description of CAR				
CME to provide the weblink for NCVfuel.				
Project participant response				Date: 20/03/2023
https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf Page 1.18 Table 1.2				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
After assessing the link provided by CME, VVB has confirmed that the value of NCV fuel (wood) is consistent with the MR Consequently, CME is kindly requested to include the IPCC pathway in the MR. The CAR will remain open until the necessary updates are made in the MR.				
Project participant response				Date: 14/09/2023
Link has been provided in Section D.1 of the MR in relevant parameter box.				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 03/10/2023
VVB has assessed the revised MR and noted that PP has updated the link for the NCV fuel parameter. The values are now consistent with the MR, CAR is closed.				

CAR ID	11	Section no.	D.1	Date: 30/01/2023
Description of CAR				
CME to provide Baseline survey data for February and march to verify the Value of Tby, as the value is not in-line with VPA-DD.				
Project participant response				Date: 20/03/2023
Baseline Survey Uploaded, see Tab 'Report' Cell F47 for value (presented in hours 1.2 hrs = 72 minutes)				
Documentation provided by project participant				
Manicaland Baseline Survey.xlsx				
GS VVB assessment				Date: 22/05/2023
Upon evaluating the baseline survey provided by CME, VVB has determined that the value of Tby is in line with the VPA-DD. As a result, the CAR is now considered closed.				

CAR ID	12	Section no.	D.4	Date: 30/01/2023
Description of CAR				
CME to submit snapshot of the random number generator .				
Project participant response				Date: 20/03/2023
Random Sample Process uploaded				
Documentation provided by project participant				
Zimbabwe MP4 Random Sample April 22_July_v2 - process (CONFIDENTIAL).xlsx				
GS VVB assessment				Date: 22/05/2023
CME has provided the snapshot of random generator, The CAR remains open as CME needs to incorporate the sampling process, including a detailed description of the process and method, into the R**S** sheet.				
Project participant response				Date: 14/09/2023
This is already included in the Random Sample document.				
Documentation provided by project participant				
Revised** Zimbabwe MP4 Random Sample April 22_July_v**3				
GS VVB assessment				Date: 03/10/2023

VVB has identified that in the random sample sheet sample selection procedure and detailed description of method to calculate sample size is included for sample selection. Hence CAR is closed.

CAR ID	13	Section no.	A.1	Date: 30/01/2023
Description of CAR				
CME to correct the total value for SDG-13, i.e., from 60,00 to 60,000 in MR.				
Project participant response				Date: 20/03/2023
MR Amended				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
VVB has assessed the MR and found CME has update /corrected total value for SDG-13, i.e., from 60,00to 60,000. Hence CAR is closed.				

CAR ID	14	Section no.	D.3	Date: 30/01/2023
Description of CAR				
Tpy and IPy parameter table are missing in the D.2 section, however CME to mention the values of Tpy for each VPAs.				
Project participant response				Date: 20/03/2023
Parameter tables added to MR				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023
VVB has assessed the updated MR and found Tpy and IPy parameter table has been added ,Upon evaluation of the Tpy and IPy values in both the MR and the ER sheet, VVB has observed inconsistencies specifically with the Tpy values . Hence CAR is Open.				
Project participant response				Date:
MR has been corrected, value of Tp,y = 37.8 minutes				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 03/10/2023
After evaluating the revised MR and ER sheet, the VVB has found that CME has corrected the values of Tpy, ensuring consistency between the ER and MR. CAR is closed.				

CAR ID	15	Section no.	E.5.1	Date: 30/01/2023
Description of CAR				
Under section E.5.1 **a)** Inconsistency found in TRy values under section E.5.1 of SDG 5. **b)** As mentioned under SDG 6, it is shown the reason for increase in values than estimated is mentioned under section B.2.5. however, under section B.2.5 of the MR is found no change hence CME to revise the section B.2.5.				
Project participant response				Date: 09/05/2023
a) TRy **updated.** **b)** Reference removed and section E.5.1 amended				
Documentation provided by project participant				
Revised MR				
GS VVB assessment				Date: 22/05/2023

Upon evaluating the MR, VVB has identified an ongoing inconsistency in the Try value under section E.5.1 of SDG 5 between the MR and ER sheet. CME is kindly requested to provide clarification regarding the Try value. Additionally, it is noted that CME has updated section E.5.1 of the MR under SDG 6. The CAR will remain open until the necessary updates are made in the MR.	
Project participant response	Date: 14/09/2023
Section E.5.1 pertains to the Explanation of the calculation of Ex-Ante values. The value of 40% for parameter TRy presented in this section is in line with the value presented in Table E.5. It is expected that this value would not be equal to the value presented during the Monitoring Period (47.5%). Therefore, no change is necessary and CAR can be closed.	
Documentation provided by project participant	
Revised MR	
GS VVB assessment	Date: 03/10/2023
VVB has reviewed both the MR and ER sheet and determined that the Try value is consistent with the ER sheet and MR. CAR is closed .	

Annex 1: Assessment of data and parameters fixed ex-ante at the time of validation.

Relevant SDG Indicator	SDG 13 Climate action
Parameter	CO_2 emission factor arising from use of wood fuel in baseline scenario(including production , transport and use) (EF b,co2)
Data unit	tCO_2/TJ
Default values used	112
Purpose of data	EFfuel was used in accordance with the methodology as a methodology default value
Source of verification of the source	Calculated from IPCC defaults; Volume 2: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2, Table 2.5 https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Relevant SDG Indicator	SDG 13. Climate action
Parameter	Non-CO_2 (CH4 and N_2O) emission factor arising from use of wood fuel in baseline scenario (includes production, transport, and use) ($EF_{b,\ non\text{-}co2}$).
Data unit	tco_2/TJ
Default values used	9.46
Purpose of data	EFfuel was used in accordance with the methodology as a methodology default value. For project activities starting from 01/01/2013, the most update figure of 8.692 is used for this parameter as per guidance from the GS TAC and GS Guidance. For all vintages 2021 onwards, an updated value of 9.46 is used based on updated Global Warming Potential (GWP) published in the IPCC AR5 report.
Source of verification of the source	Calculated from IPCC defaults http://www.ipcc.ch/publications_and_data/ar4/wg1/en/c h2s2-10-2.html#table-2-14

Relevant SDG Indicator	SDG 13. Climate action
Parameter	Non-renewability status of woody biomass fuel in scenario i during year y (fNRB)
Data unit	Non-Renewability Fraction
Default values used	0.97
Purpose of data	Default NRB value was used in accordance with the methodology. NRB is fixed for the project unless reassessed in future as per PP requirements.
Source of verification of the source	The NRB assessment has been carried out by an independent consultant in accordance with the methodology.

Relevant SDG Indicator	SDG 13. Climate Action
Parameter	Net calorific value of the fuel used in the baseline (NCV_{fuel})
Data unit	TJ/ton
Default values used	0.0156
Purpose of data	NCVfuel was used in accordance with the methodology as a methodology default value.

Source of verification of the source	IPCC default: http://www.ipccnggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf_Table 1.2

Relevant SDG Indicator	SDG 13 (Climate Action), SDG 3.9.1 (Good Health and Well-Being)
Parameter	Quantity of fuel that is used to treat 1 litre of water in baseline scenario b during year y ($W_{b,y}$)
Data unit	T/L
Default values used	0.0004 Capped
Purpose of data	Calculation of emission reductions
Source of verification of the source	GS default value

Relevant SDG Indicator	SDG 13. (Climate Action), SDG 6.1.1 (Clean Water and Sanitation)
Parameter	Quantity of wood fuel that is used to treat 1 litre of water project scenario p during project year ($W_{p,y}$)
Data unit	T/L
Default values used	0.0004 Capped
Purpose of data	Calculation of emission reduction
Source of verification of the source	GS default value

Relevant SDG Indicator	SDG 13. (Climate Action), SDG 6.1.1 (Clean Water and Sanitation), SDG 3.9.1 (Good Health and Well-Being)
Parameter	Portion of users of project safe water supply who were already in baseline using a non- boiling safe water supply.(C_j)
Data unit	%
Default values used	1.76%
Purpose of data	To calculate the additional number of persons having access to safe water in the project activity compared to the baseline scenario
Source of verification of the source	Baseline study /03-d/

Relevant SDG Indicator	SDG 13. Climate action
Parameter	Percentage of premises that in the absence of the project activity would have used non- GHG emitting technologies like chlorine treatment techniques (if available) in the project boundary. (X_{boil}) non suppressed demand.
Data unit	%
Default values used	0
Purpose of data	To establish the number of households who, if they had access to a means of purifying water, would purify using a non-GHG emitting method (such as chlorination tablets) and thus calculate an accurate suppressed demand figure.
Source of verification of the source	Baseline study /03-d/

Relevant SDG Indicator	SDG 5.2.1 (Gender Equality)
Parameter	Time spent collecting water and fuel per household per day before the project activity ($T_{b,y}$)
Data unit	minutes
Default values used	72
Purpose of data	To calculate TRy and quantify whether the project has contributed to a reduction in the amount of time spent collecting water and fuel compared to the pre-project scenario.
Source of verification of the source	Baseline study /03-d/

Annex 2: Assessment of data and parameters monitored.

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13. (Climate Action)
Data / Parameter: **(as in monitoring plan of PDD):**	Number of persons consuming water supplied by project scenario p through year y ($N_{p,y}$)
Unit	Project Technology Days
Measuring frequency/Time Interval:	Annual
Reported value	GS6518: 451,422 (515,112) GS6519: 432,432 (535,808) GS6520: 445,536 (559,787) GS6521: 461,842 (660,181.8) GS6522: 541,500 (1,079,133) GS6523: 507,585 (734,357) Total: 2,840,317 (4,084,388.8) Number of Failure Days (% of MP) GS6518: 3 (<1%) GS6519: 5 (<1%) GS6520: 5 (<1%) GS6521: 10.1 (1%) GS6522: 20 (1%) GS6523: 6 (<1%) Total: 49.1 (<1%)
Verified Source of Data	ER sheet /02/ project survey /03-a/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13 (Climate Action), SDG 6. (Clean Water and Sanitation), SDG 3. (Good Health and Wellbeing)
Data / Parameter: **(as in monitoring plan of PDD):**	Usage rate in project scenario p during year y. ($U_{p,y}$)
Unit	%
Measuring frequency/Time Interval:	Annual
Reported value	92.37% (capped at 95%)
Verified Source of Data	Usage Survey /03-b/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13 (Climate Action), SDG 6. (Clean Water and Sanitation), SDG 3. (Good Health and Wellbeing)
Data / Parameter: **(as in monitoring plan of PDD):**	Percentage of the population experiencing water-related illnesses in the project scenario. (Ip,y)
Unit	%
Measuring frequency/Time Interval:	Annual
Reported value	0(All VPAs)
Verified Source of Data	Usage Survey /03-b/

Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13. (Climate Action)
Data / Parameter: **(as in monitoring plan of PDD):**	Quantity of safe water supplied in the project scenario p during the year y using the zero or low emissions clean water supply technology ($Q_{p,y}$)
Unit	Litres per person per day
Measuring frequency/Time Interval:	Biennial
Reported value	7.5 CAPPED (11.37 ACTUAL; all VPAs)
Verified Source of Data	Water Consumption Field Test (WCFT) /03-c/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically	NA

possible been applied or has a request for deviation been approved?	

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 6 (Clean Water and Sanitation)
Data / Parameter: **(as in monitoring plan of PDD):**	Quantity of safe water boiled in the project scenario p per person per day using the zero or low emissions clean water supply technology (Qp,cleanboil,y)
Unit	Litres per person per day
Measuring frequency/Time Interval:	Biennial
Reported value	0 (All VPAs)
Verified Source of Data	Water Consumption Field Test (WCFT) /03-c/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 6 (Clean Water and Sanitation)
Data / Parameter: **(as in monitoring plan of PDD):**	The raw of unsafe water that is still boiled after installation of the water treatment technology ($Q_{p,rawboil,\ y}$)
Unit	Litres per household per day
Measuring frequency/Time Interval:	Biennial
Reported value	0 (All VPAs)
Verified Source of Data	Water Consumption Field Test (WCFT) /03-c/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes

Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13. (Climate Action)
Data / Parameter: **(as in monitoring plan of PDD):**	Leakage in project scenario p during year y ($LE_{p,y}$)
Unit	tCO_2e per year
Measuring frequency/Time Interval:	Biennial
Reported value	0 (All VPAs)
Verified Source of Data	Baseline and project surveys /03-d&a/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 5. (Gender Equality)

Data / Parameter: **(as in monitoring plan of PDD):**	Time spent collecting water per household per day in project. (Tp,y)
Unit	hours
Measuring frequency/Time Interval:	Annual
Reported value	37.8 (all VPAs)
Verified Source of Data	Project Survey /03-a/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 5. (Gender Equality)
Data / Parameter: **(as in monitoring plan of PDD):**	Usage of time saved on water collection.
Unit	%
Measuring frequency/Time Interval:	Annual
Reported value	1. (Unpaid) Domestic work (includes cooking and caring for family members) – 97% 2. Income generating activities – 20% 3. Religious activities – 01% 4. Social and leisure activities – 0% 5. Voluntary activities – 0% 6. Education and training – 0% 7. Other (Specify) – 0%
Verified Source of Data	Project Survey /03-a/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA

Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 6. (Clean Water and Sanitation)
Data / Parameter: **(as in monitoring plan of PDD):**	Number of additional persons having access to safe water in the project activity compared to the baseline scenario (P_{access})
Unit	Number of people
Measuring frequency/Time Interval:	Annual
Reported value	GS6518: 1,217 GS6519: 1,167 GS6520: 1,202 GS6521: 1,251 GS6522: 1,474 GS6523: 1,370
Verified Source of Data	Usage Survey /03-b/, Household list /14/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 5. (Gender Equality)

Data / Parameter: **(as in monitoring plan of PDD):**	Total reduction time spent collecting water for project activity in year y ($TR_{,y}$)
Unit	%
Measuring frequency/Time Interval:	Annual
Reported value	47.5% (All VPAs)
Verified Source of Data	Project Survey /03-a/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 6 (Clean Water and Sanitation), SDG 3 (Good Health and Wellbeing)
Data / Parameter: **(as in monitoring plan of PDD):**	Number of persons having access to safe water from the project activity. (P_y)
Unit	Number
Measuring frequency/Time Interval:	Annual
Reported value	GS6518: 1,239 (1,414) GS6519: 1,188 (1,472) GS6520: 1,224 (1,538) GS6521: 1,273 (1,821) GS6522: 1,500 (2,983) GS6523: 1,395 (2,018)
Verified Source of Data	Household lists /14/, Usage Survey /03-b/ and WCFT/03-c/
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered PDD:	NA

Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

APPENDIX 7. Assessment of Safeguarding Principles

Safeguarding Principles	Assessment Questions/ Requirements	How Project will achieve Requirements through design, management or risk mitigation.	Verification team assessment
Principle 1. Human Rights	1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights	NA.	NA.
	2. The Project shall not discriminate with regard to participation and inclusion	NA.	NA.
Principle 2. Gender Equality	1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women (a) Sexual harassment and/or any forms of violence against women – address the multiple risks of genderbased violence, including sexual exploitation or human trafficking.	Not relevant	Not relevant
	(b) Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls.	Not relevant	Not relevant
	(c) Restriction of women's rights or access to resources (natural or economic).	Not relevant	Not relevant
	(d) Recognise women's ownership rights regardless of marital status – adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources.	Not relevant	Not relevant.

	2. Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work: (a) Where appropriate for the implementation of a PoA/VPA, paid, volunteer work or community	Equal participation of women and men in decision making is encouraged by promoting their equal membership on water point committees (WPCs). These WPCs are trained to facilitate the	Not relevant
	contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities.	participation of members depending on their specific circumstances. They also assist all community members to provide feedback on the project, regardless of their situation.	
	(b) Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status.	The project aims to benefit the whole community equally and women's equal participation in the LSC and water point committees is encouraged.	Not relevant
	(c) Ensure that these conditions do not limit the access of women or men, as the case may be, to PoA/VPA participation and benefits.	The project encourages equal participation of men and women.	Not relevant
	3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.	The project reduces the community exposure to water borne illness through the provision of a safe water source, and reduces the risk of household air pollution by removing the need for households to boil water for purification.	Not relevant
	4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)	Not relevant	Not relevant

Principle 3. Community Health, Safety and Working Conditions	The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	The project reduces the community exposure to water borne illness through the provision of a safe water source and reduces the risk of household air pollution by removing the need for households to boil water for purification.	The project involves the rehabilitation of borehole and verification team has done the assessment during remote interviews and found that no incidence of water born disease or illness were happened from the project implementation.
Principle 4.1 Sites of Cultural and Historical Heritage	Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	Not relevant	Not relevant
Principle 4.2 Forced Eviction and Displacement	Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	Not relevant	Not relevant
Principle 4.3 Land Tenure and Other Rights	Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership?	Not relevant	Not relevant
Principle 4.4 Indigenous People	Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	NA.	NA.
Principle 5. Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	Communities involved in the projects are able to communicate any cases of corruption through the continuous input mechanism established for the projects. No instances of corruption have been reported in the monitoring period.	The project involves the rehabilitation of borehole and verification team has done the assessment during remote interviews and crosscheck the grievance logbook records and found users were only charged a nominal maintenance fee therefore, no instances of corruption have been reported in the monitoring period.

Principle 6.1 Labour Rights	1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions	NA.	NA.
	2. Workers shall be able to establish and join labour organisations	NA.	NA.
	3. Working agreements with all individual workers shall be documented and implemented and include: a. Working hours (must not exceed 48 hours per week on a regular basis), AND b. Duties and tasks, AND c. Remuneration (must include provision for payment of overtime), AND d. Modalities on health insurance, AND e. Modalities on termination of the contract with provision for voluntary resignation by employee, AND f. Provision for annual leave of not less than 10 days per year, not including sick and casual leave.	NA.	NA.
	4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion)	NA.	NA.
	5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures	NA.	NA.

Principle 6.2 Negative Economic Consequences	Does the project cause negative economic consequences during and after project implementation?	Community-orientated trainings on conducting minor maintenance were established at the beginning of the project. All breakdowns are recorded in the monitoring report and average functionality is well above 75%, shows that this initiative has been highly successful.	The project involves the rehabilitation of borehole and verification team has done the assessment during the remote interviews and found that no negative economic consequences were caused due the project implementation.
Principle 7.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	The project reduces greenhouse gas emissions compared to the baseline scenario.	Not Relevant
Principle 7.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	Not applicable	Not Relevant
Principle 8.1 Impact on Natural Water Patterns/Flows	Will the Project affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	Not applicable	Not Relevant
Principle 8.2 Erosion and/or Water Body Instability	Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	Not applicable	Not Relevant
Principle 9.1 Landscape Modification and Soil	Does the Project involve the use of land and soil for production of crops or other products?	Not applicable	Not Relevant

Principle 9.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	Not applicable	Not Relevant
Principle 9.3 Genetic Resources	Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	Not applicable	Not Relevant
Principle 9.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	Not applicable	Not Relevant
Principle 9.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	Not applicable	Not Relevant
Principle 9.6 Pesticides & Fertilisers	Will the Project involve the application of pesticides and/or fertilisers?	Not applicable	Not applicable
Principle 9.7 Harvesting of Forests	Will the Project involve the harvesting of forests?	Not applicable	Not applicable.
Principle 9.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	Not applicable	Not Relevant
Principle 9.9 Animal husbandry	Will the Project involve animal husbandry?	Not applicable	Not Relevant
Principle 9.10 High Conservation Value Areas and	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical	Not applicable	Not Relevant

Critical Habitats	habitats, landscapes, key biodiversity areas or sites identified?		
Principle 9.11 Endangered Species	Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? AND/OR Does the Project potentially impact other areas where endangered species may be present through transboundary affects?	Not applicable	Not Relevant

APPENDIX 8: Gold Standard Verification Protocol

CCIPL's Checklist question	Ref.	MoV[4]	Findings, comments, references, data sources	Draft conclusion	Final conclusion
1. Sustainability Monitoring					
1.1 Have all non-neutral indicators been monitored as per the sustainability monitoring plan?		I,	Yes, all the non-neutral indicators have been monitored as per the sustainability monitoring plan.	OK	OK
1.2 Have the methods to monitor data changed? And are they suitable to the project scale and type?		DR	Methods to monitor data have not changed as compared with the monitoring plan in the registered passport and monitoring plan.	OK	OK

CCIPL's Checklist question	Ref.	MoV[4]	Findings, comments, references, data sources	Draft conclusion	Final conclusion

[4] MoV = Means of Verification, DR = Document Review, I = Interview, www = internet search.

1.3 Has the way of monitoring been followed? With the inclusion of dates and parameters?		I	The sustainability monitoring plan has been followed as described in the Passport.	OK	OK
1.4 Have mitigation measures been put in place to prevent the risk of the violation of the safeguarding principle of the “Do No Harm” assessment or to neutralize a Sustainable Development Indicator that is being monitored?		DR	The POA is the rehabilitation of borehole to the masses and doesn’t involve any large set up or organization base that can be qualified as significant for a “Do Not Harm” procedures.	OK	OK
1.5 Has all the data in the Sustainability development matrix been verified and cross-checked against available sources of project data? Has it been described how sustainable development would be affected if a variance occurred?		I	Yes, all data in the sustainability development matrix have been verified and cross-checked from the supporting documents/data and during the remote interview.	OK	OK
2. Other					
2.1 Are there any issues from the previous validation/verification? (ie FARs, requests / approvals for RMP)		DR	No	OK	OK
2.2 Has the project ever received any requests for reviews or incompletes from the UNFCCC or GS Secretariat?		DR	No there are no requests for reviews or incomplete for the project.	OK	OK
2.3 The evaluation of the status of mitigation and compensation measures has been verified.		DR,I	Yes, the status of mitigation and compensation measures has been verified.	OK	OK