Verification and certification report for
Gold Standard programme of activity

BASIC INFORMATION	
Title and GS reference number of Programme of activity	(GS1247) : Improved Kitchen Regimes Multi- Country PoA,
Scale of the project activity	☐ Large-scale ☐ Small-scale ☒ Micro-Scale
Version number of the verification and certification report	1.1
Completion date of the verification and certification report	10/04/2024
Monitoring period number and duration of this monitoring period	Monitoring period Number 2nd GS10735: 01/08/2021 – 31/07/2022 VPA 256 Northern Ethiopia Community Safe Water (including both the days) Monitoring period Number 2nd GS10736: 01/08/2021 – 31/07/2022 VPA 257 Northern Ethiopia Community Protected Springs (including both the days) Monitoring period Number 1st GS10737: 25/06/2021- 31/07/2022 VPA 258 Northern Ethiopia Community Protected Springs (including both the days)
Version number of the monitoring report to which this report applies	GS10735: Version 07 dated :08/04/2024 GS10736: Version 07 dated :08/04/2024 GS10737: Version 07 dated :08/04/2024
Crediting period of the project activity corresponding to this monitoring period	

Project ID	Crediting Period Start Date	Crediting Period End Date
GS10735	04/07/2020	03/07/2025
GS10736	29/06/2020	28/06/2025
GS10737	30/06/2021	29/06/2026

Project representative(s)	CO2 balance UK ltd.
Host Party	Federal Democratic Republic of Ethiopia
Applied methodologies and standardized baselines	Technologies and Practices to displace decentralized thermal energy consumption" methodology (TPDDTEC) v.3.1

<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">GS10735 : 10,000 tCO2e
GS10736 : 10,000 tCO2e
GS10737 : 10,000 tCO2e

Total : 30,000 tCO2e</td></tr>
<tr><td>Certified amount of GHG emission reductions or GHG removals for this monitoring period</td><td colspan="3">GS10735 : 8,532 tCO2e
GS10736 : 10,000tCO2e
GS10737 : 3,402 tCO2e

Total: 21,934 tCO2e</td></tr>
<tr><td>SDG Impacts:</td><td colspan="3"><table>
<tr><th>SDGs</th><th>Values estimated in ex ante calculation of approved PDD for this monitoring period</th><th>Actual values[1] achieved during this monitoring period</th></tr>
<tr><td>SDG 13</td><td>GS10735: 10,000 tCO2e
GS10736: 10,000 tCO2e
GS10737: 10,000 tCO2e
Total: 30,000 tCO2e</td><td>GS10735: 8,532 tCO2e
GS10736: 10,000tCO2e
GS10737: 3,402 tCO2e
Total: 21,934 tCO2e</td></tr>
<tr><td>SDG 3</td><td>Number of additional people consuming safe water:
GS10735: 1,053
GS10736: 1,044
GS10737: 1,044</td><td>Number of additional people consuming safe water:
GS10735: 1,089
GS10736: 1,159
GS10737: 586</td></tr>
<tr><td>SDG 5</td><td>Reduction in time spent collecting water:
0.5 hours</td><td>Reduction in time spent collecting water:
GS10735: 0.47
GS10736: 0.31
GS10737: 0.31</td></tr>
<tr><td>SDG 6</td><td>Additional people gaining access to safe water:
GS10735: 5,793
GS10736: 5,741
GS10737: 5,741</td><td>Additional people gaining access to safe water:
GS10735: 6,323
GS10736: 6,728
GS10737: 3,400</td></tr>
</table></td></tr>
<tr><td>Name and GS reference number of the VVB</td><td colspan="3">E-0052: Carbon Check (India) Private Ltd.</td></tr>
<tr><td>Name, position and signature of the approver of the verification and certification report</td><td colspan="3">Priya Suman

Priya Suman, Compliance Officer</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.

SECTION A. Executive summary

Carbon Check (India) Private Ltd. (CCIPL) is performing the 2nd and 1st periodic verification of the GS POA titled.
"Improved kitchen Regimes Multi-country POA(GS1247)" GS1247 VPA 256 Northern Ethiopia Community Safe Water (GS10735), GS1247 VPA 257 Northern Ethiopia Community Protected Springs (GS10736), GS1247 VPA 258 Northern Ethiopia Community Protected Springs (GS10737) for the Monitoring period

GS10735: 01/08/2021 – 31/07/2022 (including both the days)
GS10736: 01/08/2021 – 31/07/2022 (including both the days)
GS10737: 25/06/2021- 31/07/2022 (including both the days)
The project activity involves rehabilitating non-functioning water points to provide villages with a source of safe water within the provinces of Ethiopia. The start date of the project activity is.

Project ID	Start Date	Crediting Period Start Date	Crediting Period End Date
GS10735	03/07/2020	04/07/2020	03/07/2025
GS10736	28/06/2020	29/06/2020	28/06/2025
GS10737	29/06/2021	30/06/2021	29/06/2026

According to the POA&VPA- DD /B03/ & MR /01/
"GS1247 VPA 256 Northern Ethiopia Community Safe Water (GS10735),GS1247 VPA 257 Northern Ethiopia Community Protected Springs (GS10736),GS1247 VPA 258 Northern Ethiopia Community Protected Springs (GS10737),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 256 Northern Ethiopia Community Safe Water (GS10735), GS1247 VPA 257 Northern Ethiopia Community Protected Springs (GS10736), GS1247 VPA 258 Northern Ethiopia Community Protected Springs (GS10737) in the host country "Ethiopia" for the period for the Monitoring period.
GS10735: 01/08/2021 – 31/07/2022 (including both the days)
GS10736: 01/08/2021 – 31/07/2022 (including both the days)
GS10737: 25/06/2021- 31/07/2022 (including both the days)

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
GS10735: 01/08/2021 – 31/07/2022 (including both the days)
GS10736: 01/08/2021 – 31/07/2022 (including both the days)
GS10737: 25/06/2021- 31/07/2022 (including both the days)
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 of project representatives were done only, no onsite inspections were performed during this verification process. GS approved deviation has been taken by the PP to execute the projects on desk review basis.

On-site visit/remote inspection exclusion justification: This project has recently approved for a deviation request to deviate from a physical site visit requested by the ongoing Verification reviewing VVB, in place of a remote audit due to the ongoing the civil conflict directly in the project area so project developer has requested deviation against the remote audit as the situation on the ground has since escalated and does not allow for an effective or safe remote audit to be conducted. Mobile phone networks and internet have been down in the region for the last months. A standard desk-based review is requested in its place for this verification.

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 256	2,913	5,619	8,532

VPA 257	4,192	5,808	10,000
VPA 258	945	2,457	3402
TOTAL EMISSION REDUCTION	8,050	13,884	21,934

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	Interviews	Verification findings
1.	Team Leader / Verifier / Technical Expert	IR	Sharma	Harish	CCIPL	X	N/A	NA	X
2.	Trainee Assessor	IR	Yadav	Shalini	CCIPL	X	N/A	NA	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	C	Indumathi	CCIPL
2.	Approver	IR	Suman	Priya	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

This project has recently approved for a deviation/13/ request to deviate from a physical site visit requested by the ongoing Verification reviewing VVB, in place of a remote audit due to the ongoing the civil conflict directly in the project area so project developer has requested deviation/13/ against the remote audit as the situation on the ground has since escalated and does not allow for an effective or safe remote audit to be conducted. Mobile phone networks and internet have been down in the region for the last months. A standard desk-based review is requested in its place for this verification.

PP has requested the deviation for the remote audit which has been approved by the GS however due to ongoing military tension in the country PP has again seek a deviation /13/request to conduct the verification activity on the desk review bases only without any physical sites and it was informed to VVB that it was not possible to conduct the remote audit. On the request of forementioned request on dated 24/11/2023 on this approval VVB has verified projects on the basis of the Desk review, interviews with the project representative team, ground team and the team involved.

Furthermore, VVB has done the assessment on desk review basis however the VVB has interviewed the PP and implementation team remotely, 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/.

Risk associated to the non-conduction of mandatory physical on-site/remote 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 desk review by means of document proofs (as feasible) and real time evidence like , GPS coordinates of water points photographs and logbooks can be checked, 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 on sample basis, either synchronously (in real time) or asynchronously (when applicable) during Desk review. 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 minimized /mitigated by documents review 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, /12/preventive maintenance declaration and CTFs etc.	☒ **Yes** ☐ **No**
3	Risk associated to verify that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the	This risk can be minimized/mitigated during desk review the monitoring equipment along with make and model, to check whether	☒ **Yes** ☐ **No**

	monitoring plan.	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 minimized/mitigated by managing access to the records during the desk review of the documents. 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 minimized/mitigated during desk review and document set of data for the monitoring period and Information provided in the monitoring report can be cross-checked with other sources such as 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/minimized by reviewing the previous Verification report and found that 9 FARs were raised during design certification stage. Which has been successfully closed during this verification.	☒ **Yes** ☐ **No**
7	Any gaps in monitoring data, if any, that cannot be justified as per applicable requirements.	As per the shared data no such gap exists for the proposed monitoring period.	☒ **Yes** ☐ **No**

8	Any design change(s)/temporary deviation(s) since the previous physical site visit.	The identified risk is minimized /mitigated by reviewing the previous verification report and found that conducting regular WQT checks would be possible due to the ongoing civil conflict in the country for therefore PP has sought and obtained deviation /13/approval, opting for a conservative approach.	☒ **Yes** ☐ **No**

C.3. Interviews

Interviews with project representatives including the implementation partner was taken by a Verification team remotely. 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.

No.	Name	Organization	Date	Topic	Team member
/1/	Matthew pike	CO2 Balance UK limited	23/08/2023	•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,

/2/	Tarekegn G/Hiwot	officer at Vita (implementation partner)	23/08/2023	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,
/3/	Mersha Getnet	CDF at Vita (implementation partner)	23/08/2023	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,
/4/	Abiyot Birhanu	water technician at the Vita (implementation partner)	23/08/2023	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,

/5/	Gashanew wubu	Water Technician at Vita (implementation partner)	23/08/2023	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,

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 GS10735-GS6523: 10,000 tCO_2e for all VPAs each Which is equal to

VPAs	ERs	ERs (applied materiality)
GS10735:	8,537 tCO_2e	853.7 tCO_2e
GS10736:	10,000 tCO_2e	1000 tCO_2e
GS10737:	3,402 tCO_2e	340.2 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/12/.

The risks identified can be mitigated through cross check with all sets of documents. The verification team performed the following checks to minimize/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/12/ 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 on desk review basis and remote interviews with the field team 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: NA

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

No sampling approach has been applied for this verification period as PP has sought deviation/13/ for non-conduction of physical and remote inspection due to ongoing military conflict in the country. Please refer section C.2 of the verification report for detail explanation.

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

The VVB has raised 01 clarifications (CLs), 17 corrective action requests (CARs) are raised and closed successfully. VVB has raised for 01 Forward Action request for next verifying VVB.
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 (applicable for VPA 258 (GS10737).

FAR#1	**The PP must prove that within the project area, there is not any other boreholes or water supply system from other carbon or non-carbon projects, including the boreholes that installed by the government or other organizations.**
PP assessment:	The entire project area of the project is vast, and it is not feasible for PP to prove that there are no other water supply systems present. However, in the communities in which repairs have been conducted PP confirms that no other water points are present, the ongoing project surveys also confirm from where users are drawing water and the CTF acts as legal confirmation.
VVB assessment:	PP has provided the declaration that no other water supply system has been present in the project area however this has been confirmed through the interviews with PP and CTFs were checked during the desk reviews which seems to be appropriate and acceptable.

FAR#2	**Location details of all water points/boreholes shall be checked prior to 1st verification.**
PP assessment:	GPS coordinates can be found in the PTD tab of the ER Calculations submitted.
VVB assessment:	VVB has checked the GPS coordinates provided in ER sheet for both boreholes and the protected springs through online and found that coordinates were found to be correct and in line with ER sheet which is within the project's boundary.

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:	PP has provided approved the usage survey/07/ from SustainCert implemented for this project is to be 95%. which is reviewed by VVB and confirmed the usage survey to capture the seasonality.

FAR#4	**PD should note that GS-TAC has determined parameter caps during an ongoing grievance as follows:** **-Firewood consumption to boil 1 litre of water for 10 minutes will be capped at 0.400 kg for three stone firewood baseline stove scenarios. For other baseline fuels, projects will be assessed on case-by-case basis. AND** **-For borehole projects, the number of users per borehole will be capped based on specifications from the borehole technology supplier/manufacturer.** **Depending on the outcomes of the grievance process, there is a potential for corrective measure, including but not limited to GS rule update and possible remedies for existing GS projects. Please see the grievance ToRs for more detail on how remedies may be proposed and applied.**
PP assessment:	These caps have been applied and are clearly evident in the ER's
VVB assessment:	VVB has reviewed the ER sheet for calculation of wood fuel to boil 1 litre of water in baseline scenario PP has considered a cap of 0.400 kg.and for boreholes the number of users per borehole is capped at 300 . VVB found this to be appropriate and acceptable.

FAR#5	**PD to update their usage survey format to capture seasonality and supply a copy for SustainCERT approval prior to conducting the study.**
PP assessment:	The Usage Survey captures seasonality and has historically been approved by SustainCERT.
VVB assessment:	VVB has evidenced, provided the usage survey/07/ seasonality considered 95% which has been approved by SustainCERT and further cross checked with Usage survey sheet provided and found to appropriate and acceptable.

FAR#6	**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. Future monitoring reports must have % total borehole downtime (and days) recorded transparently in Project Technology Days parameter box.**
PP assessment:	PP has provided information on maintenance programme under Section B.1 and has also submitted overarching roles and responsibilities document created by Vita and CO2balance.
VVB assessment:	VVB has checked the information provided in MR by PP and has cross check the evidence letter/12/ for preventive maintenance programme during the MP along

	with Vita roles and responsibilities of each of the staffs of the Vita implementation team and the projects representative provided.

FAR#7	**WBT results for wood and charcoal shall be submitted prior to 1st verification.**
PP assessment:	Please note measured WBT results are no longer valid in ER calcs, and the default value is applied (Wb, y of 0.0004). PP has applied this to this verification.
VVB assessment:	WBT has been assessed and the PP has taken the deviation/13/ for annual WQT test cannot be possible due to civil conflict in the project boundary and therefore 92.7% functionality cap across all project technology days.

FAR#8	**The walking/pedalling distance of users shall be monitored during the monitoring surveys by the PP.**
PP assessment:	The project survey has monitored the total time taken to collect water (Question 16). Distance from the borehole of each user is recorded in the project database which is included in a tab of the ER calculations.
VVB assessment:	VVB has reviewed the project survey/03/ sheet and further considered the question 16 which is the distance from the borehole of each user.VVB doesn't interviewed the end-users and confirmed through the document review provided by due to limitation in the country.

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FAR#9	**PD shall make sure that during monitoring, the total water collected by users from the project technology must be measured – along with crediting litres.**
PP assessment:	PD has included this information in the Water Consumption Field Test Results, Water Storage and Use Sheet. Field teams measured the amount of water used per day out of storage containers (if applicable) or jerrycans. This gave an accurate figure for the amount of water that was used per day which is then split by use in the Water Storage and Use Sheet. Therefore, the WCFT survey was able to determine total water collected and used.
VVB assessment:	VVB has reviewed the WCFT surveys provided by PP and found that field teams measured the amount of water used per day out of storage containers or jerrycans and the total water collected from the users have been mentioned in the test results which is found to be appropriate and acceptable.

FAR#10	**The total number of persons consuming water supplied by project through year y is a monitored parameter and PD shall submit this information during the 1st verification.**
PP assessment:	User lists for all technologies included in the project have been supplied for first verification. This information is available in the ER calculation spreadsheets under the 'HH list' tab
VVB assessment:	VVB has reviewed the user lists for all technologies in the project consuming water supplied available in the ER calculation spreadsheets and found to be appropriate and acceptable.

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

D.3. Post-registration changes

>> Temporary Deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

1) Deviation requests were submitted and approved against the requirement for a physical audit and subsequent remote audit.

PP response: Due to the ongoing civil war in the region it was unsafe for the VVB or other third party to attend a physical audit of any of the project villages. Initially plans for a remote audit were made, but due to the escalation of the conflict this was deemed unsafe for the project partner to manage. This was also then deviated against.

The conflict and ongoing situation in the region are beyond the PD's and implementation partners control; however, the nature of this deviation is temporary, and a future physical site visit will be conducted when deemed safe and appropriate.

VVB Assessment: VVB has reviewed the approved deviation/13/ provided by PP and, considering the current situation in Ethiopia, deemed it unsafe to conduct a physical site visit in the project area due to civil conflicts. Instead, the assessment was conducted through a desk review.

2) A deviation request was submitted covering this MP, which deviated on the outlined water quality testing approach in the PDD/methodology, which was not fully achieved due to the civil war in the region.

PP response: As part of the deviation, the PP proposed to implement a more conservative functionality cap based on the CDM confidence/precision achieved in the lowest WQT quarter across the project. This applies a 92.7% functionality cap across all project technology days. The deviation was approved in full for this MP as the civil was clearly outside the control of PP.

VVB Assessment: VVB has reviewed the approved deviation /13/for WQT provided by PP and, considering the current situation in Ethiopia, deemed it unsafe to conduct a WQT test visit in the project area due to civil conflicts. Instead, the assessment was conducted to implement a more conservative functionality cap based on the CDM confidence/precision achieved in the lowest WQT quarter across the project. This applies a 92.7% functionality cap across all project technology days.

D.3.1. Corrections

>>

Not applicable

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

>>

Crediting period dates registered on SustainCert platform are estimates at the time of VPA creation and updated in the first Verification period of associated VPA in the MR once specific technology start dates are known and bundled into appropriate VPAs. As a result, the confirmed Crediting Period Start dates for these VPA's are as follows (as per Section A.4)

Project ID	Start Date	Crediting Period Start Date	Crediting Period End Date
GS10735	03/07/2020	04/07/2020	03/07/2025
GS10736	28/06/2020	29/06/2020	28/06/2025
GS10737	29/06/2021	30/06/2021	29/06/2026

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

>>

Section D.1 of the MR, parameter Pb,y is removed. It is not required for the calculation of SDG 3. The parameter has been removed from the Monitoring Report. This was added in error and is applicable to all VPAs.

Section D.2 of the MR contains parameter Pp,y for the calculation of SDG 3. It is not required to calculate SDG 3 impact. The parameter has been removed from the Monitoring Report. This was added in error and is applicable to all VPAs.

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 02 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 12 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	CL01 ,CAR 13, 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	CAR16 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), 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) 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/03/ 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. **The WCFT** performed found consumption of 10.62 L per person per day for GS10735 (boreholes) and 9.02 L per person per day for GS10736 and GS10737 (protected springs) all values are capped at 7L per person per day. The WCFT is carried out by staff trained by CO2balance UK Ltd to meet the specific requirements of the methodology. All data presented in Excel is subject to checking and cross referencing of a sample of the raw data by CO2balance UK Ltd. **Usage Survey** is used to determine the Up,y (usage rate in the project scenario p through year y) parameter. As all protected springs will be installed within 1 year of the start of the crediting period and are expected to last the lifetime of the project, minimum samples of 30 for different aged technologies will not be necessary. Boreholes included in this project are installed within a year from the start of the crediting period. Random sampling of different aged technologies ensures that a minimum of 30 samples from each age group are included. The annual usage survey for boreholes and protected springs are conducted using a minimum sample size of 100. The **project survey/03/** is conducted using a minimum sample size of 100. No sampling approach has been adopted by the VVB as the PP has taken the deviation/13/ from the GS to execute the project on the desk review basis only.

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: $$B_{b,y} = (1 - C_j) * N_{j,y} * W_{b,y} * (Q_{p,y} + Q_{p,rawboil,y})$$
	Where: $N_{j,y}$: Number of person days consuming water supplied by project scenario p through year y 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 $B_{b,y}$: Quantity of fuel consumed in baseline scenario b during the year y in tons $Q_{p,y}$: Quantity of safe water in litres consumed in the project scenario p and supplied by project technology per person per day $Q_{p,rawboil,y}$: Quantity of raw water boiled in the project scenario p per person per day. $W_{b,y}$: Quantity of fuel in tons required to treat 1 litre of water using technologies representative of baseline scenario b during the project year y, as per Baseline Water Boiling Test $fNRB_y$: - 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
GS10735:	3,099	6,307	9,408
GS10736:	4,865	6,802	11,238
GS10737:	1,006	2,613	3,623

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/.

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

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

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	Total PTDs
GS10735:	2,497,493
GS10736:	2,982,912
GS10737:	961,891

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, • The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project. • The non-renewable biomass or fossil fuels saved under the project activity are used by non-project users who previously used lower emitting energy sources. • The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for NRB fraction in their baseline scenario. • The project population compensates for loss of the space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology. • By virtue of promotion and marketing of new technology with high efficiency, the project stimulates substitution within households who commonly used a technology with relatively lower emissions, in cases where such a trend is not eligible as an evolving baseline.

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

Means of verification	Document Review, Interview
Findings	No Finding Raised
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: $ERy = \sum b,p\ (Np,y^* Up,y^* Pp,b,y^* NCVb, fuel * (fNRB,b, y * EFfuel, CO2 + EFfuel, nonCO2)) - \sum LEp,y$ $ERy = (\sum BEb,y - \sum Pp,y)^* Up,y - \sum LEp,y$ Where: $\sum b,p$: - 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 256	2,913	5,619	8,532
VPA 257	4,192	5,808	10,000
VPA 258	945	2,457	3402
TOTAL EMISSION REDUCTION	8,050	13,884	**21,934 tCO2e**

The verification team confirms that 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.7.5. 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

SDGs	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values[3] achieved during this monitoring period
SDG 13	GS10735: 10,000 tCO2e GS10736: 10,000 tCO2e GS10737: 10,000 tCO2e **Total: 30,000 tCO2e**	GS10735: 8,532 tCO_2e GS10736: 10,000tCO_2e GS10737: 3,402 tCO_2e **Total: 21,934 tCO2e**
SDG 3	Number of additional people consuming safe water: GS10735: 1,053 GS10736: 1,044 GS10737: 1,044	Number of additional people consuming safe water: GS10735: 1,089 GS10736: 1,159 GS10737: 586

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

	SDG 5	Reduction in time spent collecting water: 0.5 hours	Reduction in time spent collecting water: GS10735: 0.47 GS10736: 0.31 GS10737: 0.31
	SDG 6	Additional people gaining access to safe water: GS10735: 5,793 GS10736: 5,741 GS10737: 5,741	Additional people gaining access to safe water: GS10735: 6,323 GS10736: 6,728 GS10737: 3,400
	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	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 30,000 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 95%, whereas actual data shows usage is higher (capped at 95%). The estimated value (10,000 tCO_2e per VPA) is the same for the GS10735-37 as they are capped.

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 1st and 2nd periodic verification of the registered GS PoA title: Improved kitchen Regimes Multi-Country (1247)
"GS1247 VPA 256 Northern Ethiopia Community Safe Water (GS10735), GS1247 VPA 257 Northern Ethiopia Community Protected Springs (GS10736), GS1247 VPA 258 Northern Ethiopia Community Protected Springs (GS10737)"

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 GS/GS requirements for the team composition and competence. The verification team has conducted a thorough contract review as per GS 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 of PP and implementation team (23/08/2023)
- 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 21,934 tCO2e emission reductions (Refer the table in section D.7.4) during the reported monitoring period /01/.

This statement covers verification period from
GS10735: 01/08/2021 – 31/07/2022 (including both the days)
GS10736: 01/08/2021 – 31/07/2022 (including both the days)
GS10737: 25/06/2021- 31/07/2022 (including both the days)

The VVB has raised 01 clarifications and 17 corrective action requests all of which are raised and closed successfully. VVB has raised for 01 Forward Action request for next verifying VVB.

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) 21,934 tCO2e 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
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
GS	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

Appendix 2. Competence of team members and technical reviewers

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
☐ CCB Expert	☐ Legal Expert	☒ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ 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	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022	Initial Adoption
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Indumathi C

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
☐ CCB Expert	☐ Legal Expert	☒ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India and Sri Lanka			

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	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022[1]	Annual revision
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Appendix 3. Documents reviewed or referenced.

Sr. No.	Document
/01/	Monitoring Report version 07 Dated: 08/04/2024
/02/	a) GS1247_GS10735_VPA_256_MP2_BH_ERs_v3 b) GS1247_GS10736_VPA_257_MP2_PS_ERs_v4 c) GS1247_GS10737_VPA_258_MP1_PS_ERs_v3
/03/	a) Project Survey (Protected Spring) Amhara b) Project Survey (Borehole) Amhara
/04/	a) Usage Survey (Protected Spring) Amhara b) Usage Survey (Borehole) Amhara
/05/	a) Roles and responsibilities of VITA implementation
/06/	a) PS_Amhara_Photos_Nameplate sample b) BH Amhara
/07/	Evidence “Usage Survey seasonality SC Approval”- Email confirmation
/08/	“Amhara MCFs”
/09/	Random Samples: a) Usage Survey (Borehole) Amhara random sample b) Usage Survey (Protected Spring) Amhara_RS c) Project Survey (Borehole) Amhara Random sample d) Project Survey (Borehole) Amhara Random sample
/10/	a) Vita-Amhara-Water Annual Survey Staff Traning-2022
/11/	Contract Details (SOW) – CCIPL and CO_2 balance UK Ltd dated: 09/12/2022
/12/	a) Evidence letter for Preventive maintenance and reactive records.
/13/	a) DEV_577 b) DEV_628 c) Deviation-Request_GS10735-7_Northern Ethiopia_DEV456
/14/	a) Declaration of no double counting_MP2 GS1247 VPA 256-25
/15/	a Amhara-WCFT-BH-July 2021(2) b Amhara-WCFT-PR-July 2021

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 VPA DDs: a) GS10735_(2)GS10735 VPA 256 VPA DD_v5_CL b) GS10736 (2)GS10735 VPA 257 VPA DD_v5_CL

	c) GS10736 (2)GS10735 VPA 257 VPA DD_v5_CL
/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: a) http://cdm.unfccc.int/ b) https://www.goldstandard.org
/B10/	Rule update – **a)** Micro -scale project requirement version 1.2 **b)** 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

FAR ID	01		Date: 18/03/2024
Description of FAR			
Next verifying VVB shall check that the date/ time stamps must be available in the photographs of boreholes and protected spring.			

Table 2. CLs from this verification

CL ID	01	Section no.	D.2	Date: 18/04/2023
Description of CL				
For the current monitoring period, CME to clarify A. The decrease in the value of NPy for GS10736. Also share the sales database for the current monitoring period. B. The increase in the values of SDG 3 for GS10736				
Project participant response				**Date: 04/12/2023**
A. More waterpoints have been bundled into G10736 during this MP2, that were not included during MP1. This has meant the VPA now reports and increase in Npy. The Sales database is made up of the PTDs tab of the ER sheet. It is a water project that involves the installation of water points. All are included among the PTDs. The CTF/Rehab confirmation form acts as The CTF/Rehab confirmation form acts as confirmation of the rehabilitation taking place. The rehab date is included in the PTDs. Further, any ongoing critical maintenance receives a MCF (Maintenance Confirmation Form) with also confirms the repair taking place and parts used. By it's nature, safe water projects are very different to stove projects where a sales database is more critical. **B.** More waterpoints have been bundled into G10736 during this MP2, that were not included during MP1. This has meant the VPA now reports and increase in SDG3, as well as other parameters.				
Documentation provided by project participant				
revised MR, ER sheets				
GS VVB assessment				**Date:28/02/2024**
• As per the response provided by PP, VVB observe that PP has now included the more waterpoints in the G10736 during this MP2, that were not included during MP1. Therefore, the SDG 3 will increase. • PP has shared the sales database provided in the PTD tab of ER sheet which has been checked by the VVB and further PP has claiming less Npy total for the project due to more waterpoints were added in the G10736 during this MP2, which were not included in the MP1 due to some software error. • CAR is closed				

1.1 Corrective action required (CARs)

Table 2 CARs

CAR ID	01	Section no.	KPI	Date: 18/04/2023
Description of CAR				
CME to mention the latest version of POA-DD available at SustainCert database.				
Project participant response				**Date: 02/12/2023**
PP has updated version number (16.)				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 09/02/2024**
VVB has reviewed the revised MR and found that PP has now corrected the version number 16 as available in the GS registry. CAR is closed.				

CAR ID	02	Section no.	KPI	Date: 18/04/2023
Description of CAR				
In Key project information, 1) CME to mention the date when the last Annual report was submitted. Also, CME shall share the last annual report submitted to GS for the review of VVB. 2) In line with the requirement of GS template guide of MR CME Indicate monitoring period in format 1st, 2nd, 3rd etc. Furthermore, CME to clearly mention monitoring period for each VPA as for GS10736 2nd Verification and for GS10737 its 1st verification. 3) CME to use the Abbreviation of the methodology.				
Project participant response				**Date: 04/12/2023**
1) AR date added to KPI and uploaded the associated report in response. 2) PP has updated as required. 3) The Abbreviation (TPDDTEC 3.1) is used				
Documentation provided by project participant				
GS10735-7 Annual Report MP2_MP1 2022_signed				
GS VVB assessment				**Date: 09/02/2024**
VVB has assessed the revised MR and found that PP has now added the Annual report date to KPI.PP has updated the monitoring number as per the template requirement and abbreviation of methodology has been updated in the MR. CAR is closed.				

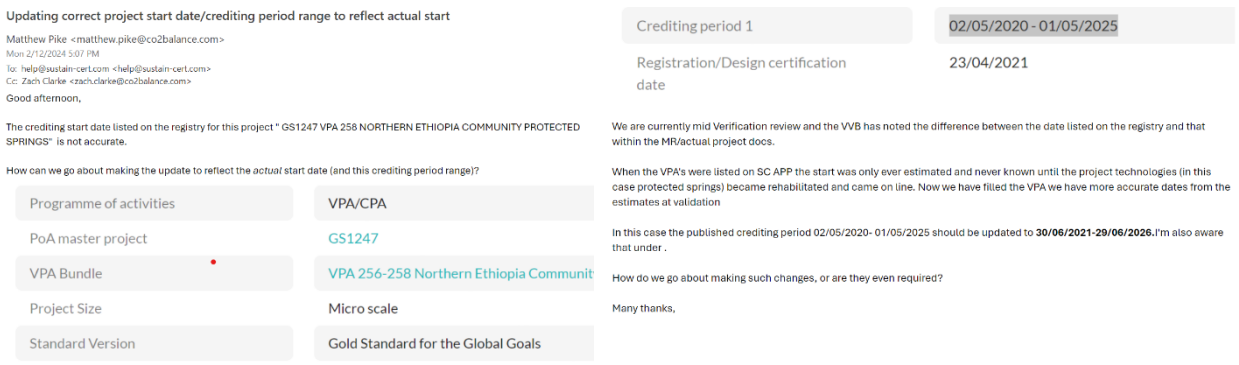
CAR ID	03	Section no.	Table 1	Date: 18/04/2023
Description of CAR				
Under Table 1 CME to Correct the Units/Products in Table 1 Sustainable Development Contribution Achieved i.e. VERs.				
Project participant response				**Date: 04/12/2023**
PP has corrected as requested.				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 09/02/2024**
VVB has assessed the revised MR and found that PP has now corrected the Units/Products in Table 1 Sustainable Development Contribution Achieved. CAR is closed.				

CAR ID	04	Section no.	Table 2	Date: 18/04/2023
Description of CAR				
In line with template guide, CME to mention unit of the product for all VPAs.				
Project participant response				**Date: 04/12/2023**
PP has updated as required				
Documentation provided by project participant				
NA				

GS VVB assessment	Date: 09/02/2024
VVB has assessed the revised MR and found the PP has now updated the unit of the product for all VPAs as required. CAR is closed.	

CAR ID	05	Section no.	NA	Date: 18/04/2023
Description of CAR				
CME to share the Carbon Transfer Form signed by the water point owner for VPA 258/GS10737.				
Project participant response				**Date: 04/12/2023**
PP has shared CTFs from VPA 258.				
Documentation provided by project participant				
'VPA 258 CTFs' folder.				
GS VVB assessment				**Date: 09/02/2024**
VVB has reviewed the CTFs provided by PP on sample basis and found to be acceptable and appropriate to VVB CAR is closed				

CAR ID	06	Section no.	A.4	Date: 18/04/2023
Description of CAR				
Dates for the crediting periods mentioned for GS10737 is not matching with an GS registry, CME to clarify about the dates of crediting Period. Also present the documentary evidence against Start date of the GS10737.				
Project participant response				**Date: 04/12/2023**
PP will email GS to request this be updated. However, at the time the VPAs were registered on the platform there was no way to be sure of the accurate start date. In line with standard approach, the CTF of the earliest tech in the VPA suggests the start date of the CP. This has been shared.				
Documentation provided by project participant				
VGIF-04-010				
Round 1 GS VVB assessment				**Date: 09/02/2024**
CAR is open till the PP has provided the evidence of GS email submission request to update the dates of crediting period to VVB.				
Round 2 Project Participant Response				**Date: 09/02/2024**
PP has included screenshot request to GS. However, please note that changes to the registered dates are not required and purely indicative and no official change is required as outlined below: *"In case the revised start date of the crediting period is after the date of Project Design Certification, a certified project activity is not required to request approval for the changes summarised in the Table 1 below, but shall notify VVB at the time next certification event."* ***– section 3.3.1 of Design Change Requirements v1.1.***				



Updating correct project start date/crediting period range to reflect actual start

Matthew Pike <matthew.pike@co2balance.com>
Mon 2/12/2024 5:07 PM
To: help@sustain-cert.com <help@sustain-cert.com>
Cc: Zach Clarke <zach.clarke@co2balance.com>

Good afternoon,

The crediting start date listed on the registry for this project " GS1247 VPA 258 NORTHERN ETHIOPIA COMMUNITY PROTECTED SPRINGS" is not accurate.

How can we go about making the update to reflect the *actual* start date (and this crediting period range)?

Programme of activities	VPA/CPA
PoA master project	GS1247
VPA Bundle	VPA 256-258 Northern Ethiopia Communit
Project Size	Micro scale
Standard Version	Gold Standard for the Global Goals

Crediting period 1	02/05/2020 - 01/05/2025
Registration/Design certification date	23/04/2021

We are currently mid Verification review and the VVB has noted the difference between the date listed on the registry and that within the MR/actual project docs.

When the VPA's were listed on SC APP the start was only ever estimated and never known until the project technologies (in this case protected springs) became rehabilitated and came on line. Now we have filled the VPA we have more accurate dates from the estimates at validation

In this case the published crediting period 02/05/2020- 01/05/2025 should be updated to **30/06/2021-29/06/2026.** I'm also aware that under .

How do we go about making such changes, or are they even required?

Many thanks,

Documentation provided by project participant	
NA	
GS VVB assessment	**Date: 28/02/2024**
PP has provided the evidence of GS email submission request to update the dates of crediting period to VVB which deems appropriate and acceptable to VVB. CAR is closed.	

CAR ID	07	Section no.	B.1	Date: 18/04/2023
Description of CAR				
Under section B.1 of MR 1)CME shall caption and number the Figures presented throughout the MR. 2)As mentioned under section B.1 of the MR, CME to provide water quality test records/certificate for this monitoring periods. 3)CME to provide quarterly check and preventive maintenance records for this monitoring period as mentioned under section B.1. 4)As mentioned under section B.1 CME to provide repair confirmation forms against maintenance activity held for this monitoring period .				
Project participant response				**Date: 04/12/2023**
1) Figures are captioned and numbered as required. 2) WQT 3) Partner does not retain records of preventative maintenance conducted. **4)** During this MP, RCFs and maintenance was only required during Q4 of 2021. These have been shared				
Documentation provided by project participant				
2) WQT *4) Q4 Amhara MCF.pdf*				
GS VVB assessment				**Date: 28/02/2024**
VVB has reviewed the revised MR and the documents provided by PP and concluded that: 1) Figures and captions are now being presented in the MR. 2) The WQT test report was provided by PP which has been checked. 3) PP has provided records for preventive maintenance record which has been checked and found to be appropriate and acceptable to VVB. 4) RCF and maintenance form has been cross checked. CAR is closed				

CAR ID	08	Section no.	B.1.1	Date: 18/04/2023
Description of CAR				
It has been noticed there were FAR raised during the validation of GS10737, CME to mention all FARs raised during validation under section B.1.1 with their responses.				
Project participant response				**Date: 04/12/2023**
PP notes FARs were raised and dealt with during Verification for GS10735-6. However, PP has now added FAR section to MR and responded to the FARs in the context of GS10737, now in its first Verification. As the VPAs and project is homogenous, these still apply.				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 28/02/2024**
VVB has reviewed the revised MR and found that PP has addressed the all the FARs which were raised during the previous the validation of GS10737 and has been successfully closed now. CAR is closed				

CAR ID	09	Section no.	B.2.3	Date: 18/04/2023
Description of CAR				
CME to mention the changes made in crediting period dates under section B.2.3 as the dates mentioned under section A.4 is not in line with an GS registry.				
Project participant response				**Date: 03/12/2023**
PP has added to section B.2.3 as requested and mentioned changes.				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 09/02/2024**
VVB has assessed the revised MR and found that PP has now added the section B.2.3 and updated the crediting period start dates. Which deems appropriate to VVB, CAR is closed.				

CAR ID	10	Section no.	B.2.5	Date: 18/04/2023

Description of CAR	
As its the bundle of VPAs CME to clearly mention for which VPA project design is changed. Also clarify how the change are in line with Design change requirementv1.1 para 3.	
Project participant response	**Date: 03/12/2023**
No Design change has been implemented to the project at this stage. Section B 2.5 refers to a parameter box that was removed from the MR as it is not relevant to safe water projects and was included in error previously.	
Documentation provided by project participant	
NA	
GS VVB assessment	**Date: 09/02/2024**
VVB has reviewed the response provided by the PP and found that design change is not applicable and therefore the section B.2.5 refers to parameter box removed from the MR which is not relevant to Safe water projects. CAR is closed.	

CAR ID	11	Section no.	C	Date: 18/04/2023
Description of CAR				
CME is to provide records of each water point along with GPS coordinates and unique identification number for all VPAs.				
Project participant response				**Date: 04/01/2023**
These are provided for all 3 VPAs within the PTDs/Summary tab of the associated ER Excel sheets per VPA, under PTDs tab.				
Documentation provided by project participant				
ER spreadsheets per VPA				
GS VVB assessment				**Date: 09/02/2024**
VVB has reviewed the revised ER spreadsheet of each VPAs and found that PP has included the UIN. CAR is closed.				

CAR ID	12	Section no.	D.1	Date: 18/04/2023
Description of CAR				
Under section D.1. of the MR, 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. As values of the EFb,non co2 and other parameter which are depends on the GWP will be updated. CME to use the updated Value to calculate the relevant parameters and update the ER calculation.				
Project participant response				**Date: 03/12/2023**
PP has updated to AR5 Values in ER sheets				
Documentation provided by project participant				
revised ER sheet				
GS VVB assessment				**Date: 28/02/2024**
VVB has reviewed the revised ER sheet which has been now corrected and the MR and ER sheets are now consistent. CAR is closed.				

CAR ID	13	Section no.	D.2	Date: 18/04/2023
Description of CAR				
CME to submit the training record/training content used for the usage survey training for the staff who conducted the usage survey.				
Project participant response				**Date: 03/12/2023**
PP has included training records for Boreholes and Springs on Usage and Project Surveys.				
Documentation provided by project participant				
Vita-Amhara-Water Annual Survey Staff Traning-2022.pdf				
GS VVB assessment				**Date: 09/02/2024**
VVB has assessed the provided documents of Annual Survey Staff Training and found that PP has now added the content used for the usage survey training for the staff who conducted the usage survey. CAR is closed.				

CAR ID	14	Section no.	D.2	Date: 18/04/2023

Description of CAR	
Mentioned source of data under section D.2 for the parameter Hygiene campaigns is missing, CME to submit the same along with wash reports.	
Project participant response	**Date: 03/12/2023**
PP has shared WASH report of Hygiene campaigns conducted.	
Documentation provided by project participant	
2022-Amhara -WASHCOM training.pdf	
GS VVB assessment	**Date: 09/02/2024**
VVB has reviewed the document "WASH report of Hygiene campaigns" which is found to be appropriate and further PP has added the source of data under section D.2 of the MR. CAR is closed.	

CAR ID	15	Section no.	D.4	Date: 18/04/2023
Description of CAR				
Under Section D.4 of MR 1) CME to submit the supporting evidence of the outcome of random number generator. 2) CME To provide training documents for Field staff as proof of training.				
Project participant response				**Date: 03/12/2023**
1) PP has included Random Sample and procedure (with random number generator included) 2) PP has provided these.				
Documentation provided by project participant				
1) Random Sample Amhara 2022 BH. Excel *2) Vita-Amhara-Water Annual Survey Staff Traning-2022.PDF*				
GS VVB assessment				**Date: 09/02/2024**
PP has provided the required evidence under Section D.4 of the MR which has been assessed and revied by the VVB and found to be appropriate and acceptable. CAR is closed.				

CAR ID	16	Section no.	E.5	Date: 18/04/2023
Description of CAR				
Ex-ante values are missing for the GS10737 CME to mention the ex-ante values considered for the each VPA. Furthermore, the values mentioned for the SDG 3 is not in line with registered VPA-DD. i.e.1044 in the VPA-DD Same for the SDG 6 i.e. 5741				
Project participant response				**Date: 03/12/2023**
PP has added these to section E.5 as requested				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 28/02/2024**
PP has now added the Ex-ante values considered for the GS10737 for each of the VPAs, and which seems appropriate and acceptable to VVB.CAR is closed				

CAR ID	17	Section no.	E.6	Date: 18/04/2023
Description of CAR				
CME to provide the remark for each SDG for which the value estimated is increased than approved PDD. i.e. SDG 3 and SDG 6				
Project participant response				**Date: 03/12/2023**
PP has provided remarks in Section E.6 as required				
Documentation provided by project participant				
revised MR				
GS VVB assessment				**Date: 28/02/2024**
VVB has reviewed the revised MR and found that PP has now included the remark on each SDGs under section E.6 of the MR which deems appropriate and acceptable to VVB. CAR is closed.				

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

Relevant SDG Indicator	SDG 13. B.1 Climate action
Parameter	CO_2 emission factor arising from use of wood fuel in baseline scenario (EF b,co2) (wood)
Data unit	tCO_2/TJ
Default values used	112
Purpose of data	EF-fuel 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. B.1 Climate action
Parameter	CO_2 emission factor arising from use of wood fuel in baseline scenario (EF b,co2) (charcoal)
Data unit	tCO_2/TJ
Default values used	336
Purpose of data	Calculation of baseline emissions
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.B.1 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) ($EF_{b,\ non\text{-}co2}$).(Wood)
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.B.1 Climate action
Parameter	Non-CO_2 (CH4 and N_2O) emission factor arising from use of charcoal fuel in baseline scenario ($EF_{b,\ non\text{-}co2}$).(charcoal)
Data unit	tco_2/TJ
Default values used	28.38
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 https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Relevant SDG Indicator	SDG 13.B.1 Climate action
Parameter	CO2 emission factor arising from use of wood fuel in project scenario ($EF_{p,\ co2}$). (Wood)
Data unit	tco_2/TJ
Default values used	112
Purpose of data	Calculation of emission reductions
Source of verification of the source	Calculated from IPCC defaults https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Relevant SDG Indicator	SDG 13.B.1 Climate action
Parameter	CO2 emission factor arising from use of charcoal fuel in project scenario ($EF_{p,\ co2}$). (charcoal)
Data unit	tco_2/TJ
Default values used	336
Purpose of data	Calculation of emission reductions
Source of verification of the source	Calculated from IPCC defaults https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Relevant SDG Indicator	SDG 13.B.1 Climate action
Parameter	CO2 emission factor arising from use of wood fuel in project scenario ($EF_{p,\ non\text{-}co2}$). (wood)
Data unit	tco_2/TJ
Default values used	9.46
Purpose of data	Calculation of emission reductions
Source of verification of the source	Calculated from IPCC defaults https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Relevant SDG Indicator	SDG 13.B.1 Climate action
Parameter	CO2 emission factor arising from use of wood fuel in project scenario ($EF_{p,\ non\text{-}co2}$). (Charcoal)
Data unit	tco_2/TJ
Default values used	28.38
Purpose of data	Calculation of emission reductions
Source of verification of the source	Calculated from IPCC defaults https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

Relevant SDG Indicator	SDG 13. B.1 Climate Action

Parameter	Net calorific value of the fuel used in the baseline NCV_b [Wood]
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. B.1 Climate Action
Parameter	Net calorific value of the fuel used in the baseline (NCVb) (charcoal)
Data unit	TJ/ton
Default values used	0.0295
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. B.1 Climate Action
Parameter	Net calorific value of the fuel used in the project (NCVp) (wood)
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. B.1 Climate Action
Parameter	Net calorific value of the fuel used in the project (NCVp) (charcoal)
Data unit	TJ/ton
Default values used	0.0295
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.B.1 (Climate Action), SDG 3.9.1 (Good Health and Well-Being)
Parameter	Quantity of wood fuel that is used to treat 1 litre of water in baseline scenario b during year y ($W_{b,y}$) (wood)
Data unit	T/L
Default values used	0.0004
Purpose of data	Calculation of emission reductions
Source of verification of the source	Baseline Water Boiling Test

Relevant SDG Indicator	SDG 13.B.1 (Climate Action), SDG 3.9.1 (Good Health and Well-Being)
Parameter	Quantity of charcoal fuel that is used to treat 1 litre of water in baseline scenario b during year y ($W_{b,y}$) (charcoal)
Data unit	T/L
Default values used	0.0001
Purpose of data	Calculation of emission reductions
Source of verification of the source	Baseline Water Boiling Test

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

Relevant SDG Indicator	SDG 13.B.1 (Climate Action), SDG 3.91 (Good Health and Well Being)
Parameter	Quantity of charcoal that is used to treat 1 litre of water project scenario p during project year ($W_{p,y}$) (charcoal)
Data unit	T/L
Default values used	0.0001
Purpose of data	Calculation of emission reduction
Source of verification of the source	Baseline Water Boiling Test

Relevant SDG Indicator	SDG 13.B.1 (Climate Action), SDG 6.1.1 (Clean Water and Sanitation)
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	22.73%
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. B.1 (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	1
Purpose of data	calculation of emission reductions

Source of verification of the source	Baseline study. Credible literature, studies, survey, reports, relevant to the project target area

Relevant SDG Indicator	SDG 5.4.1 (Gender Equality)
Parameter	Time spent collecting firewood per household per day before the project activity ($T_{b,y}$)
Data unit	hours
Default values used	1.42
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/

Relevant SDG Indicator	SDG 5.4.1 (Gender Equality)
Parameter	Percentage of persons boiling water in the baseline (Pb, boil)
Data unit	percentage
Default values used	83.64%
Purpose of data	Determination of number of persons boiling water in the baseline
Source of verification of the source	Baseline project survey /03-d/

Annex 2: Assessment of data and parameters monitored.

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13.B.1 (Climate Action)
Data / Parameter: (as in monitoring plan of PDD):	Non-renewability status of woody biomass fuel in scenario i during year y (fNRB)
Unit	Non-Renewability Fraction
Measuring frequency/Time Interval:	Annual
Reported value	0.88
Verified Source of Data	CDM Default stated in following document: https://cdm.GS.int/Panels/ssc_wg/meetings/037/ssc_37_an14.pdf
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.B.1 (Climate Action), SDG 6.1.1 (Clean Water and Sanitation)
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	GS10735: 2,497,493 (Non-functional days 06) GS10736: 2,982,912 (Non-functional days 05) GS10737: 961,891 (Non-functional days 0)
Verified Source of Data	ER sheet /02/ project survey /03/
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.B.1 (Climate Action), SDG 6.1.1 (Clean Water and Sanitation), SDG 3.9.1 (Good Health and Well Being)

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	100% (capped at 95%)
Verified Source of Data	Usage Survey /4/
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?	YES

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 13.B.1 (Climate Action), SDG 3.9.1 (Good Health and Well Being)
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	GS10735: Capped at 7l. (10.62l) GS10736 and GS10737: Capped at 7l. (9.02)
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	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place

reductions and are necessary QA/QC processes 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.B.1 (Climate Action), SDG 3.9.1 (Good Health and Well Being)
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 (Every 2 years)
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.B.1 (Climate Action)
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.B.1 (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/
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	GS10735: 0.95 hours GS10736 and GS10737: 1.11 hours
Verified Source of Data	Project Survey /03/
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 6.1.1 (Clean Water and Sanitation)
Data / Parameter: **(as in monitoring plan of PDD):**	Quality of Treated Water
Unit	Parameters as per national standards
Measuring frequency/Time Interval:	Quarterly
Reported value	100% pass rate (capped at 92.7 by PP as per related deviation request) Of the WQTs conducted during the MP, the project achieved 100% pass rate. This was capped in relation to the approved deviation request described in B.2
Verified Source of Data	
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?	Yes

Monitoring Parameter Requirement	**Assessment/ Observation by the VVB**
Relevant SDG Indicator	SDG 6.1.1 (Clean Water and Sanitation), SDG 3.9.1 (Good Health and Well-Being)
Data / Parameter: **(as in monitoring plan of PDD):**	Hygiene campaigns
Unit	Outcome of WASH meetings
Measuring frequency/Time Interval:	Annual
Reported value	
Verified Source of Data	
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 6.1.1 (Clean Water and Sanitation), SDG 3.9.1 (Good Health and Well-Being)

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	GS10735: 8,614 GS10736: 9,166 GS10737: 4,632 Cap of 300 users per borehole applied (GS10735)
Verified Source of Data	Usage Survey /04/ and WCFT/15/
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 GS 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