VERRA REVIEW FINDINGS REPORT

This report includes findings identified during Verra's post-registration review of the below-mentioned project. The review was conducted pursuant to Section 6 of the *VCS Registration and Issuance Process*.

The VVB must:

1. Address the findings and provide responses in this report for Verra's review.
2. Attach supporting documentation as needed.

Confidential information may be provided as separate attachments and should be clearly designated as such.

This report may be shared with the relevant accreditation body.

Project and Relevant Assessment(s)	2351, Installation of High Efficiency Wood Burning Cookstoves in Mozambique VCS Verification (Verification Report Issued on 18 March 2023) for MP: 01/09/2021 - 28/02/2022. VCS Verification (Verification Report Issued on 22 September 2023) for MP: 01/03/2022 - 15/09/2022. VCS Verification (Verification Report Issued on 27 July 2023) for MP: 16/09/2022 - 31/03/2023.
Verra Program(s)	Verified Carbon Standard (VCS) Program
VVB	VKU Certification Pvt. Ltd.
Lead Contact	Vikas Kumar Aharwal
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References	*VCS Standard, v4.7; VCS Program Guide, v3.7;* ISO 14064

Date of First Issue	29 July 2024
Due Date for Responses	16 August 2024
Review Conclusion	Approved
Date of Final Issue	14th October 2024

FINDINGS

Finding 1 - Lack of clarity on the determination of $B_{y=1,new,i,j,survey}$, (Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j) and accuracy of the value applied.

Issues

1. The on-ground monitoring raw data have not been cross-checked to verify the value of $B_{y=1,new,i,j,survey}$ against on-ground monitoring raw data, which is necessary to confirm the absence of data inaccuracies and inconsistencies.
2. According to the registered project description (PD) and monitoring report (MR), the parameter '$B_{y=1,new,i,j,survey}$', is determined *ex-post* after one year of stove operation and fixed for the rest of the crediting period. However, the monitoring report(s) does not transparently outline the process and methods used to determine this value
3. The MR and verification report (VR) do not provide information about whether the survey conducted meets the statistical requirements of 90/10 or 95/10 confidence and precision, and whether it is representative of different types of cookstoves distributed/strata, as per the Standard for Sampling and surveys for CDM project activities and programmes of activities.
4. Section 4.3 of the MR states that this parameter was determined through measurement campaigns at representative households. However, the VVB has not assessed whether the monitoring procedures applied align with VMR0006, v1.1 and how the conditions specified under '$B_{y=1,new,i,j,survey}$' parameter table (refer page 17-18 of VMR0006, v1.1) were satisfied.

Action Required

1. The VVB must assess how the $B_{y=1,new,i,j,survey}$ value applied for monitoring period(s) is accurate, consistent and credible for monitoring period(s) under review.
2. The VVB must cross-check the value used in emission reductions and removals (ERR) calculations with the on-ground monitoring raw data to confirm the accuracy of the value.
3. The VVB must assess whether the survey, process and methods to determine $B_{y=1,new,i,j,survey}$ for new instances added in the monitoring period are transparent and align with VMR0006, v1.1 and the latest version of the CDM Standard for sampling and surveys for CDM project activities and programme of activities.
4. The VVB must use objective evidence to independently assess information provided by the project proponent related to the value applied and ensure that the monitoring report and verification report are updated to include this evidence and assessment.

Program Rule(s)

VCS Standard v4.7, section 3.16.1 -3.16.5.

Background

Refer Annexure I

VVB Response

1. The VVB has cross-checked the raw data which was used to calculate the value of '$B_{y=1,new,i,j,survey}$' with the *"Verra s6.1Operations MP1 2351"* sheet submitted to VVB by PP; where raw ground data of all selected samples is provided with reliability check according to 90/10 confidence/precision applicable. PP has recalculated the '$B_{y=1,new,i,j,survey}$' value as per the ground data applicable and revised in MP-1 MR and subsequently in MRs of all MPs with respect to the calculation of '$B_{y=1,new,i,j,survey}$' in the *"Verra s6.1Operations MP1 2351".* FVRs of all MPs have been revised to include new values with assessmentwhich is necessary to confirm the absence of data inaccuracies and inconsistencies in emission reductions achieved in all 3 MPs.
2. PP has provided the revised MR and ER sheet for all 3 MPs and it was found that the measurement of parameter '$B_{y=1,new,i,j,survey}$' is done as per the applied methodology VMR0006 V1.1 and the procedure is already mentioned in brief in section 4.2 which is found to be consistent with the VCS PD.
3. The revised MR submitted by PP and the previous MRs section 4.3 clearly states the statistical requirements of 90/10 confidence and precision applied by PP as per the Standard for Sampling and surveys for CDM project activities and programme of activities. The *"Verra s6.1Operations MP1 2351"* sheet for '$B_{y=1,new,i,j,survey}$' and revised ER sheets includes the revised '$B_{y=1,new,i,j,survey}$' value submitted by PP which are found to be following the same approach hence it is accepted by VVB.
4. As verified from the applied methodology by VVB that the value of $B_{y=1,new,i,j,survey}$, was determined in the first year of the introduction of the devices (e.g., during the first year of the crediting period, y=1) through measurement campaigns at representative households in MR. PP has used the measurement campaigns at representative households for determination of this parameter which is as per the methodology version 1.1 applicable and registered VCS PD. Hence VVB confirms that the parameter is appropriately calculated and the conditions specified under '$B_{y=1,new,i,j,survey}$ parameter table (refer page 17-18 of VMR0006, v1.1) were not applicable.

Verra Response

The VBB has reviewed the documentation and submissions from the PP on the monitoring tests undertaken to determine the '$B_{y=1,new,i,j,survey}$' during the first monitoring period. The VVB acknowledges that at the time of the verification, there was material information which was not made available to the VVB, that had an impact on the overall emission reductions by the project for the monitoring period for MP: 01/09/2021 - 28/02/2022., MP: 01/03/2022 - 15/09/2022 and MP: 16/09/2022 - 31/03/2023.

The VVB has reviewed the material information presented by the PP, including a duly signed letter (dated 01/10/2024) from their attorneys who acted as counsel to the PP in an investigation of matters related to the misstatement of carbon credits in projects C-Quest submitted to Verra. The letter states that, *"Based on our investigation and review of the analysis conducted by C-Quest for the purposes of the Section 6.1 process, we have conveyed to the Authorities that the by.new data reflected in the Spreadsheets represents accurate updated by.new data*." Based on the new information, the $B_{y=1,new,i,j\ survey}$ value has been updated, and it is conservative as compared to the value applied in the calculation of emission reductions claimed for the project. The verifying VVB for Monitoring Period 1 has also reviewed the revised data and confirmed that the updated value of 1.0903 tonnes/year/device is conservative and appropriate as compared to the value ORIGINALLY applied to the project.

Since the value is determined during the first verification and fixed for the entire crediting period, the verifying VVB of MP1 has applied the updated value and fixed it for the entire crediting period i.e. 27/01/2021 to 26/01/2031 (10 years fixed).

The VVB for the current MP has also checked the same data and confirmed it to be correct. VVB has confirmed that the monitoring survey adheres to robust statistical analysis and is conservatively established.

Based on the VVB assessment, the monitoring report and verification report have been revised, and the ERR adjusted to reflect the correct amount due for the monitoring period(s) under review. The issue is closed.

Finding 2 – Determination of the proportion of installed cookstoves operating within the period not transparent

Issues

1. The proportion of operational cookstoves within the monitoring period(s) is reported to be 100%. This is likely unrealistic, given the minimal probability of 100% stove operation without breakages and abandonment over their lifetime. The project documentation does not transparently provide the measures put in place for on-time stove maintenance support for repairs and replacement.
2. The verification report does not provide a sufficiently detailed assessment of how the proportion of operational cookstoves was verified with cross-checking of on-ground monitoring raw data.
3. The monitoring report(s) does not provide sufficient information on how the samples for determining stoves in operation were selected and the sampling process used and whether the minimum sample size was me for each respective monitoring period.

Action Required

1. The VVB must assess and confirm the completeness, conservativeness and accuracy of the corrective MRV practices and sampling procedures related to determining the proportion of operational cookstoves within the monitoring period(s) under review.
2. The VVB must cross-check the value(s) used in ERR calculations with the on-ground monitoring raw data, project database, sales record and maintenance/repair logbook to confirm the accuracy and consistency of the value.
3. The VVB must use objective evidence to independently assess information provided by the project proponent related to the corrective value applied, and ensure that the monitoring report and verification report are updated to include this corrective method, evidence and assessment.

Program Rule(s)

VCS Standard, v4.7, Sections 3.16.3 - 3.16.5

Background

Refer Annexure I

VVB Response

1. In the previous reports submitted to VVB, PP has considered 100% stoves in operation (for MP02, MP03, MP04) which was based on monitoring survey records submitted to VVB team and these survey records were verified during on-site visit conducted for the respective MPs as part of verification assessment

following the acceptance sampling approach. The VVB has conducted assessment of these monitoring surveys based on acceptance sampling approach i.e., The VVB inspected 8 Household samples out of PP's selected samples size for each monitoring survey in the respective MPs i.e. for which the results showed 100% stoves in operation (for MP02, MP03, MP04), hence, all samples were considered statistically operational.

Now considering the total population to which the stoves have been distributed, given the minimal probability of 100% stoves in operation without breakages and abandonment over their lifetime would be highly unrealistic. To further understand the cooking practices and usage rate of the beneficiaries, the PP has implemented "Stove Champion Program" to ensure maximum stove usage rate & operation status of the cookstoves distributed. Under this Stove champion program, the PP randomly visited households in MP-3 and MP-4 as follows:

24	SGS	2351	Mozambique	3	01/03/22	15/09/22	74	74	100.0%
25	SGS	2351	Mozambique	4	16/09/22	31/03/23	70	70	100.0%

Snapshot of *(44.03.06 Privileged & Confidential - Stove champion data)*

PP has updated the MRs and ER sheets submitted to VVB for verification and used 90% as proportion of operational cookstoves for all 3 MPs (MP-2, MP-3 & MP-4). The value for the parameter N_{yij} as concluded through the stove champion data was independently assessed by the VVB. PP has provided the background evidences such as:

- The stove champion follow up survey *(44.03.06 Privileged & Confidential - Stove champion data)* which was conducted in MP3 & MP4, stoves in operation were found to be 100% in MP3 and 100% for MP4. VVB has cross checked the supporting documents i.e., "VCS-2351_CQC Stove Champion Survey forms" of some randomly selected samples provided by PP on which the real time data was fed by ground team through digital form at the time of survey through which the survey data was cross verified and concluded.
- The secondary data of other projects registered under different carbon credit mechanism in the project region *(44.03.05 Stoves in Operation - Verified Secondary Data)*, suggests operational percentage of stoves as 92.80%.
- All 3 MPs (MP-2, MP-3 & MP-4) project database was assessed along with the sampling survey calculation and sampling survey records conducted and available at the time of respective MP verification and found that the 100% stoves were in operation (for MP02, MP03, MP04).

All these sources of data were assessed and found to be correct. The value undertaken by the PP for parameter N_{yij} was cross-checked for the precision (reliability calculations) and it was concluded that achieved precision is 0.0% which is deemed acceptable to the VVB as per *"2351 Nyij Precision"* sheet submitted by PP for the stove champion survey conducted in MP-3 where the operational percentage of ICS in operation was found as 100%.

Hence it can be concluded that the operational percentage of ICS in operation was found to be 90% on a conservate basis in ER estimations (for all MPs) which is confirmed by VVB.

2. The verification report is revised by VVB and an assessment on the proportion of cookstove is revised as per the evidences submitted by PP. The VVB has assessed the revised ER sheets and cross checked the default values and calculated values with the help of MRs submitted, precision sheets and *(44.03.06 Privileged & Confidential - Stove champion data)* for MPs which confirms the operational status of ICS

through on-ground monitoring raw data, and this stove champion database *(44.03.06 Privileged & Confidential - Stove champion data)* was cross verified by VVB through "VCS-2351_CQC Stove Champion Survey forms" of some randomly selected samples taken on real time basis by ground team through digital application through which the survey was concluded to confirm the accuracy and consistency of the data provided in Stove champion database. Although it is to be noted here that the operational rate of ICS (for MP02, MP03, MP04) is 100% but PP has revised the operational percentage conservatively and considered 90% as operational percentage in all 3 MPs.

3. MRs section 4.3 states the process in brief that is followed for sampling and sampling survey sheets clearly shows the calculation of the applied approach and 90/10 confidence precision is used which is found to be satisfactory and correct by VVB in the documents submitted.

Verra Response

The VBB has re-checked the documentation and submissions from the PP on the revised usage rates of project stoves. The VVB acknowledges that at the time of the verification, there was material information, which was not made available to the VVB, that had an impact on the overall emission reductions by the project for the monitoring period for the MP: 01/09/2021 - 28/02/2022, MP: 01/03/2022 - 15/09/2022 and MP: 16/09/2022 - 31/03/2023.

The VVB has reviewed the material information presented by the PP and based on the new information, the usage rate determined is lower than the one which was verified initially. The VVB initially reviewed that the usage rate in the region was 92.82%, a value determined based on the usage rate of similar projects in the same region by the same project proponent.

In addition, the VVB also reviewed other similar cookstove projects within the region and established that they are using an average usage rate of 92.82%.

Based on the two determined usage rates, the VVB has confirmed that the project opted to apply a usage rate of 90% during the monitoring period and revised the emission reductions for that period to maintain conservativeness. VVB assessed that the approach is considered conservative and does not lead to overestimating emission reductions, considering that similar projects implemented in the region and stove champion data. The issue is closed.

ANNEXURE I

Background

The VVB must assess the accuracy, conservativeness, relevance, completeness, consistency, and transparency of the information provided by the project proponent, determine whether information/data provided by the project proponent is reliable, credible and complete, and base their findings and conclusions on objective evidence.

To assess the claims and assumptions in the MR, the VVB must not be limited to evidence provided by the project proponent and must describe all steps taken and sources of information used to cross-check the information contained in the MR. In doing so, the VVB must apply the means of verification required by the relevant Verra Standard, CDM accreditation standards and normative ISO documents, and standard auditing techniques, including, but not limited to:

a. Document review involving cross-checks between the information provided in the MR, raw data and information from sources other than those used; if available, the VVB's sectoral or local expertise; and, if necessary, independent background investigations; and
b. Follow-up actions (e.g., on-site inspection and telephone or email interviews), including:
    i. Interviews with relevant stakeholders in the host country, such as personnel with knowledge of the project design and implementation.
    ii. Cross-checks between information provided by interviewed personnel (i.e., by checking sources or other interviews) to ensure that no relevant information has been omitted.