Sustainability VERIFICATION REPORT for the Gold Standard Programme of Activities

World Food Programme Ethiopia

Fuel Efficient Stoves for Ethiopia Programme of Activity In Federal Democratic Republic of Ethiopia

(PoA Gold Standard ID Number GS 2718
UNFCCC Registration Ref.No. 10045)

(CPA Gold Standard ID Number GS 2722
UNFCCC Registration Ref.No. 10045-0001)

Monitoring Period:
15 November 2014 to 14 November 2015

Report No:
CCIPL419/CDM/VER/FESEPoA/20151125

Revision number: 001

Report Date: 14 July 2016

Carbon Check (India) Private Ltd.
3rd Floor, G49&50, Sector 3, Noida, Uttar Pradesh – 201301

I. PROJECT DATA

PoA title:	Fuel Efficient Stoves for Ethiopia Programme of Activity		
CPA(s):	Fuel Efficient Stoves for Ethiopia Programme of Activity CPA 001		
Registration No. / Date:	10045 (PoA) / 13-10-2014 10045-0001 (CPA)	Scale:	Small
Monitoring period:	15-11-2014 — 14-11-2015	**Monitoring Period Number:**	01
Methodology:	AMS-II.G Version 05	Sectoral Scope/Technical Area:	3/3.1
Initial MR:	The GS monitoring report (version 1, 11-04-2016)		
Final Monitoring Report:	The GS monitoring report (version 2, 14-07-2016)		
Average emission reductions:	Estimated: 43,097 tCO_2e/yr	Verified:	24,458 tCO_2e/yr
GHG reducing measure/technology:	GHG reduction due to reduction of fuel-wood consumption (non-renewable biomass) through implementation of efficient Cookstoves.		

Party	Project participants	Party considered a project participant	Contract party
Federal Democratic Republic of Ethiopia (Host)	World Food Programme Ethiopia	No	☒

II. VERIFICATION TEAM

Verification Team			Role									
Full name	Affiliation	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting/trainee Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Acting/Trainee Tech. Expert	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Anubhav Dimri	CCIPL	1.1, 1.2, 3.1, 13.1	X				X					
Samuel Abebaw	CCIPL	--			X							
Kranav Sharma	CCIPL	1.2, 3.1				X						
Vikash Kumar Singh	CCIPL	1.2, 3.1, 4.1, 13.1, 13.2								X		

III. VERIFICATION REPORT

Verification Phases and Status:

☒ Desk Review ☒ Follow up interviews, On Site Assessment

☐ Resolution of outstanding issues ☒ Corrective Actions / Clarifications Requested

☒ Full Approval and Submission for Issuance ☐ Rejected

Final Approval Date	Approval	Distribution
☐ Date: 2016-08-03	By: Amit Anand	☒ No distribution without permission from the Client or responsible organizational unit ☐ Limited Distribution ☐ Unrestricted distribution

Abbreviations

AQL	Acceptable Quality Level
BAU	Business As Usual
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CCT	Controlled Cooking Test
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
CME	Coordinating/ Managing Entity
DOE	Designated Operational Entities
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final Verification Report
GS	Gold Standard
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
ICS	Improved Cook-stoves
IPCC	Intergovernmental Panel on Climate Change
PoA	Programme of Activities
MoARD	Ministry of Agriculture and Rural Development
MP	Monitoring Plan
MR	Monitoring Report
OSV	On Site Visit
QC/QA	Quality control/Quality assurance
RMP	Revised Monitoring Plan
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Level
VER	Verified Emission Reduction
VVS	Validation and Verification Standard
WBT	Water Boiling Test

Verification Opinion — summary

Carbon Check (India) Private Ltd. has performed first periodic verification of the CDM/GS PoA "Fuel Efficient Stoves for Ethiopia Programme of Activity" and UNFCC ref number 10045 and GS registry number 2718 for the period 15 November 2014 to 14 November 2015. CPA(s) under verification are:

- Fuel Efficient Stoves for Ethiopia Programme of Activity CPA 001 (UNPA: 10045-0001 and GS Ref. 2722)

The verification team assigned by the DOE concludes that the CDM /GS Project Activity as described in the registered PoA-DD (version 02.2, dated 07/08/2014) and GS Passport for the PoA (version 05, dated 22/04/2016), CPA-DD (version 02.2, dated 07/08/2014) and GS Passport for the CPA (version 06.0, dated 22/04/2016), monitoring report (version 2.2, 22/07/2016) and GS monitoring report (version 2, dated 14/07/2016), meets all relevant requirements of the Gold Standard, UNFCCC for CDM project activities including article 12 of the Kyoto Protocol and paragraph 56 and 62 of CDM M & P, the modalities and procedures for CDM (Marrakesh Accords) and the subsequent decisions by the COP/MOP and CDM Executive Board. The verification has been conducted in-line with the UNFCCC VVS requirements version 09.0 as well as the Gold Standard Version 2.2.

<u>Verification methodology and process</u>

The Verification team confirms the contractual relationship signed on the 12/01/2016 between the DOE, Carbon Check (India) Private Ltd. and the Coordinating/Managing Entity, (World Food Programme Ethiopia). The team assigned to the verification meets the Carbon Check (India) Private Ltd.'s internal procedures including the UNFCCC requirements for the team composition and competence. CCIPL has conducted a thorough contract review as per UNFCCC and Carbon Check procedures and requirements.

The verification has been performed as per the requirements described in the Gold Standard Requirements, Gold Standard Toolkit and VVS and constitutes the review and completion of the following steps:

- Reviewing the registered PoA-DD (version 02.2 and dated 07/08/2014), CPA-DD (version 02.2, dated 07/08/2014) including the monitoring plan and the corresponding validation report and the Gold Standard Passports (GS Passport for the PoA (version 05, dated 22/04/2016) and GS Passport for the CPA (version 06.0, dated 22/04/2016)), the Sustainability Matrix and the monitoring data;
- Confirm the monitoring report has been made available to the Gold Standard Registry
- Desk review of the MR, and other relevant documents including documents related to the projects activities in emission reductions
- Review of the applied monitoring methodology (AMS-II.G, version 05);
- Review of any CMP and EB decisions, clarifications and guidance and the Gold Standard Secretariat;
- Upload of the GS workplan to the GS registry (10/05/2016)
- On-site assessment (25/05/2016 – 29/05/2016)
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

In Carbon Check's opinion the project activity was correctly implemented according to selected monitoring methodology (ies) monitoring plan and the registered PDD. The monitoring equipment was installed, calibrated and maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on site visit the verification team confirms that the project has resulted in the 24,458 tCO_2 emission reductions during the first monitoring period. The GHG emission reductions and non-GHG parameters were correctly calculated/monitored on the basis of the approved monitoring methodology AMS-II.G Version 05 and the monitoring plan contained in the PoA-DD (version 02.2, dated 07/08/2014) and GS Passport for the PoA (version 05, dated 22/04/2016), CPA-DD (version 02.2, dated 07/08/2014) and GS Passport for the CPA (version 06.0, dated 22/04/2016). Carbon Check as a DOE is therefore pleased to issue a positive verification opinion expressed in the attached Certification statement. And certify that the emission reductions from the PoA "Fuel Efficient Stoves for Ethiopia Programme of Activity" during the above stated period amount to 24,458 tonnes of CO_2 equivalent. The vintage-wise breakup of the emission reductions is provided below:

Vintage	Emission reductions (tCO2e)
15/11/2014 – 31/12/2014	3,149
01/01/2015 – 14/11/2015	21,309

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1. INTRODUCTION

The Coordinating/Managing Entity (World Food Programme Ethiopia) has commissioned Carbon Check (India) Private Ltd. to perform an independent verification of the GS/CDM PoA "Fuel Efficient Stoves for Ethiopia Programme of Activity" in non–Annex 1 host country Federal Democratic Republic of Ethiopia (hereafter referred to as "Programme of Activities(PoA)"). This report summarises the findings of the verification of the PoA, performed on the basis of Gold Standard requirements and toolkit and paragraph 62 of the CDM M & P, as well as criteria given to provide for consistent project operations, monitoring and reporting and the subsequent decisions by the CDM Executive Board and Gold Standard Secretariat. Verification is required for all registered CDM PoAs intending to confirm their achieved emission reductions and proceed with request for issuance of CERs. This report contains the findings and resolutions from the verification and a certification statement for the certified emission reductions.

1.1 Objective

Verification is the periodic independent review and *ex-post* determination of both quantitative and qualitative information by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the registered CDM PoA during a defined monitoring period.

Certification is the written assurance by a DOE that, during a specific period in time, a PoA activity achieved the emission reductions as verified.

The objective of this verification was to verify and certify emission reductions reported for the "Fuel Efficient Stoves for Ethiopia Programme of Activity" in country "Federal Democratic Republic of Ethiopia" for the period 15/11/2014 to 14/11/2015.

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. Other non-GHG parameters shall also be assessed as per the requirement of GS. Verification of emission reductions for Gold Standard crediting is only for eligible gases.

In particular, the monitoring plan, monitoring report and the PoA's compliance with relevant UNFCCC and host Party criteria are verified in order to confirm that the PoA has been implemented in accordance with the previously registered PoA design and conservative assumptions, as documented. And also to confirm that monitoring plan is in compliance with the registered PDD and approved monitoring methodology.

1.2 Scope

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered PoA-DD/CPA-DD or approved revised PoA-DD/CPA-DD
- To verify the implemented monitoring plan with the registered PoA-DD/CPA-DD or approved revised PoA-DD/CPA-DD and applied baseline and monitoring methodology.
- 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 and other non-GHG parameters as per the requirement of GS is sufficiently supported by evidence.

Carbon Check scope of verification as a third party verifier is verify project emission reductions and sustainable development impacts against the requirements set out by the Gold Standard. The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

The verification comprises a review of the monitoring report over the monitoring period from 15/11/2014 to 14/11/2015 and based on the registered PoA-DD/CPA-DD in part of the monitoring parameters and monitoring plan, emission reduction calculation spreadsheet, monitoring methodology and all related evidence provided by project participant.

On-site visit and stakeholders' interviews are also performed as part of the verification process.

1.3 Project Activity Description

The programme distributes fuel efficient cooking stoves (improved cook-stoves or "ICSs") to particularly rural households or institutions in Ethiopia. The efficient cooking stoves replace traditional stoves with energy efficient stoves (Improved Cookstoves or ICSs) for cooking purposes, thereby aiming to reduce the use of non-renewable biomass. The PoA is implemented by World Food Programme Ethiopia, the coordinating/managing entity (hereafter referred to as "CME") for the PoA. The CME is responsible for channelling funding for stove procurement, monitoring and selling CERs. Funding for the first implementation phase was channelled through the regional level bureaus of Finance to the Regional Bureaus of the Ministry of Agriculture. Only one CPA has been included in the PoA till the time of site visit for the verification of the PoA. The CPA is located in East Belesa and Ebenat woredas of Amhara region in Ethiopia. The CPA involves distribution of following two types of stoves:

1) fixed Mirt stoves (slim type, further only referred to as "Mirt stove") designed for injera baking,
2) Tikikil portable household cookstove for household cooking other than injera baking

11,084 stoves of each type (Mirt and Tikikil) have been distributed in the CPA till the monitoring period and thus a total of 22,168 stoves have been distributed.

The stove design matches the details provided in the CPA-DD/B04/ and the Monitoring report/02/.

There were no changes observed during OSV from the technology stated during the validation and earlier verifications.

The verification team confirm that the project is in line with the plans contained in the registered PoA-DD/CPA-DD /04/.

2. METHODOLOGY

The verification consists of the following four phases:

1. Completeness check of the Emission Reductions, Monitoring report and Gold Standard Sustainability Monitoring Report.
2. Review of project documentation (monitoring plan, monitoring report, monitoring methodology, project design document, applicable tools in particular attention to the frequency of measurements, quality of metering equipment's including calibration requirements, QA/QC procedures and other relevant documents and regulations);
3. Submission of verification Workplan to the Gold Standard Foundation (09/05/2016).
4. On-site visit (including follow-up interviews with project stakeholders, when deemed necessary). The on-site assignment includes the following;
    - An assignment of implementation and operation of PoA with respect to the registered PoA-DD/CPA-DD;

- Review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the PoA-DD/CPA-DD;
- Cross check of information and data provided in the monitoring report with plant logbooks, inventories, purchase records or similar data sources;
- Check of monitoring equipment, calibration frequency and monitoring practice in-line with methodology and PoA-DD/CPA-DD;
- Review of assumptions made in calculating the emission reduction;
- Implementation of QA/QC procedure in-line with the PoA-DD/CPA-DD and methodology requirement.

5. Resolution of outstanding issues and the issuance of the final Verification report and Certification statement.

The following sections outline each step in more detail.

Duration of Verification:

- Signing of Letter of Engagement: 12/01/2016
- Pre-site visit preparation: 01/05/2016 to 14/05/2016
- GS Workplan: 09/05/2016
- On Site Visit 25/05/2016 to 29/05/2016
- Reporting/Calculations/Quality and Control checks: 26/07/2016 to 03/08/2016

2.1 Desk review

The following table outlines the documentation reviewed during the verification:

Ref no.	*Reference Document*
/01/	Webhosted Monitoring report, version 1.1, 2016-04-11 Gold Standard Sustainability Monitoring Report
/02/	Final Monitoring report, version 2.2, 2016-07-22 Gold Standard Sustainability Monitoring Report version 2, 2016-07-14
/03/	Emission reduction calculation spread sheet corresponding to /01/
/04/	Emission reduction calculation spread sheet corresponding to /02/
/05/	Sample size calculation spreadsheet 1. Ex-ante sample size calculation sheet 2. Ex-post sample size calculation sheet
/06/	Sales/Distribution records
/07/	Sample sales receipts/Carbon credit waiver for end users
/08/	Sampling Results spreadsheet
/09/	Stoves Technical Specifications 1. Mirt Stove Technical Specifications 2. Manual for Production of a Household Rocket Stove “Tikikil”
/10/	Efficiency Test Results 1. Efficiency Test Report Summary spreadsheet 2. Mirt Stove CCT Test Report
/11/	Weighing Scale Calibration certificate/ Manufacturer’s Certificate for KD8000
/12/	Thermometer Calibration certificate/ Manufacturer’s Certificate
/13/	Calibration check 1. Weighing Scale Calibration check 2. Thermometer Calibration check
/14/	Letter from the Alternative Energy Technology Promotion And Dissemination

	Directorate, Ministry of Water and Energy, The Federal Democratic Republic of Ethiopia
/15/	GS Quality of Employment with the reporting form ID02
/16/	GS Quantitative employment and income generation with the reporting form ID04

During the desk review, Carbon Check applied the standard auditing techniques to assess the quality of information provided.

2.2 Background documents:

Ref no.	*Reference Document*
/B01/	1. Validation and Verification Standard version 09.0 2. Project Standard version 09.0 3. Project Cycle Procedure version 09.0
/B02/	Applied baseline and monitoring methodology, AMS-II.G, version 05
/B03/	Instructions for filling the monitoring report form for CDM programme of activities, version 01.0
/B04/	Registered PoA-DD (version 2.2 dated 07/08/2014), (CPA-DD for 10045-0001: version 2.2 dated 07/08/2014) and corresponding validation report.
/B05/	Websites: 1. http://cdm.unfccc.int/ 2. http://www.ipcc-nggip.iges.or.jp/
/B06/	Guidelines: Sampling and surveys for CDM project activities and programmes of activities, Version 04.0
/B07/	Standard: Standard for sampling and surveys for CDM project activities and Programme of Activities, version 05
/B08/	Default values of fraction of non-renewable biomass (https://cdm.unfccc.int/DNA/fNRB/index.html)
/B09/	Gold Standard specific rule/guidelines/standard: 1. Gold Standard tool kit (GSv2.2_Toolkit) 2. GSv2.2-Requirements 3. GS-annexes to toolkit
/B10/	GS Passport for the PoA (version 5, dated 22/04/2016) and CPA (version 6, dated 22/04/2016)

2.3 On-site visit and follow-up interviews with project stakeholders

An OSV was performed by the verification team of Carbon Check from 25/05/2016 to 29/05/2016 and the following activities were performed:

i. An assessment of the implementation and operation of the registered project activity as per the registered PoA-DD/CPA-DD;
ii. A review of information flows for generating, aggregating and reporting the monitoring parameters;
iii. Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PoA-DD/CPA-DD;
iv. A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;

v. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PoA-DD/CPA-DD and the selected methodology and corresponding tool(s), where applicable;

vi. A review of the calculations and assumptions made in determining the GHG data and emission reductions;

vii. An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

viii. Verification of the monitoring of sustainable development indicators

The project representatives and stakeholders interviewed:

	Name	Organization	Topic	Means of interview
/i/	Kassu Kebede	World Food Program Ethiopia	Project implementation and operation, monitoring procedure, data and information flow, Roles and responsibility, Quality Assurance – Management and operating system, Sales/Distribution records, Survey records, Sampling Procedure, Qualification and Training GS sustainable development indicators and monitoring	Face to face (onsite)
/ii/	Sven Bratschke	atmosfair gGmbH	CER calculation and completeness of monitoring report, Sampling Procedure, compliance of monitoring plan with monitoring methodology and registered CPA- DD, Monitoring procedure, data and information flow, Roles and responsibility, Quality Assurance – Management and operating system, Sales/Distribution records, Survey records, Qualification and Training GS sustainable development indicators and monitoring	Face to face (onsite)
/iii/	Genety Tadesse	NA (Stove Producer)	Training, Safety procedures, safety equipment, manufacturing process, GS monitoring parameters	Face to face (onsite)
/iv/	Adino Ambelu	Bureau of Agriculture and WFP focal point in East Belesa	Distribution procedures, Monitoring database, Sales records and carbon credit waiver forms	Face to face (onsite)
/v/	Mekonent Tegaw	Stove producer	Training, Safety procedures, safety equipment, manufacturing process, GS monitoring parameters	Face to face (onsite)
/vi/	Mulualem Alemu	Bureau of Agriculture and WFP focal point in	Distribution procedures, Monitoring database, Sales records and carbon credit	Face to face (onsite)

		Ebenat	waiver forms	
/vii/	Berhan Zelleke	WFP suboffice Amhara Region	Project implementation and operation, monitoring procedure	Face to face (onsite)

Through the above mentioned activities the verification team confirmed the following Gold Standard project aspects in relation to the project activity:

- The implementation and operation of the project activity is as described in the monitoring plan in the registered PoA-DD/CPA-DD.
- The operational and data collection procedures are implemented as per the monitoring plan in the PoA-DD/CPA-DD
- The information flow for generating, grouping and reporting of the monitored parameters
- Procedures to avoid double counting are in place.

2.4 Resolution of outstanding issues

The objective of this phase of the verification is to resolve any outstanding issues (issues that require further elaboration, research or expansion) which have to be clarified/corrective action done prior to final DOE's conclusions on the PoA implementation, monitoring practices and achieved emission reductions. In order to ensure transparency a verification protocol is completed for the PoA. The protocol shows in transparent manner criteria (requirements), means of verification and resulting statements on verification actual project activity against identified criteria.

The verification protocol serves the following purposes:

- It organises in a table form, details and clarifies the requirements, which CDM PoA is expected to meet CDM requirements;
- It ensures a transparent verification process where the DOE will document how a particular requirement has been verified and the result of the verification.
- It ensures that the issues are accurately identified, formulated, discussed and concluded in the verification report.
- It ensures the determination of achieving credible emission reductions from the project activity.

The verification protocol consists of two tables. Table 1 reflects the verification requirements and reference to the materials used to verify the project activity against those requirements, as well as means of verification, reference to Table 2 (i.e. tables of findings) and preliminary and final opinion of the DOE on every particular requirement listed in table 1.

Verification Protocol Table 1: Requirement checklist				
Checklist question	***Verification Team Comment/MoV***	***Reference***	***Findings comments references, data source / Draft Conclusion***	***Final Conclusion***
The checklist items in Table 1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual	*The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the Verification team and how the assessment was carried out. The reporting requirements of the VVS and Project Standard shall be*	*Gives reference to the information source on which the assessment is based on*	*Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR is raised (see below). The assessment refers to the*	*In case a corrective action or a clarification request the final assessment at the final verification stage is given.*

project activity.	*covered in this section.*		*draft verification stage.*	

The findings of verification process are summarized in the tables below.

Finding (reference section of table 1)			
Classification	☐ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*			
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*			
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*			
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☐ The finding is closed		

In Table 2 FAR, shall reflect the forward actions initiated by the verification team if the monitoring and reporting require attention and/or adjustment for the next verification period. The completed verification protocol for this project is enclosed in Appendix A to this report.

Findings during the verification can be interpreted as a non-compliance with CDM criteria or a risk to the compliance.

Corrective action requests (CARs) are raised, in case:

(a) Non-conformities with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;

(b) Modifications to the implementation, operation and monitoring of the registered PoA has not been sufficiently documented by the project participants;

(c) Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;

(d) Issues identified in a FAR during validation/previous verification(s) that are not been resolved by the project participant(s) to be verified during current verification.

Requests for clarification (CLs) are raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A forward action request (FAR) is raised during verification to highlight issues related to project implementation/monitoring that require review during the subsequent verification of the project activity. FARs shall not relate to the CDM requirements for issuance.

2.5 Internal quality control

The final verification report has passed a technical review before being submitted to the project participant and UNFCCC Executive Board. The technical review was performed by a technical reviewer qualified in accordance with CCIPL’s qualification scheme for CDM validation and verification.

2.6 Verification Team

Carbon Check has appointed a competent team as per the Accreditation Standard and

Verification Team		Type of Involvement						
Full name	**Appointed for Sectoral Scopes (Technical Areas)**	Supervising the work	Desk review	Site Visit + Interview	Report and protocol Writing	Technical Expert Input	Reporting Support	Technical Reviewer
Anubhav Dimri	1.1, 1.2, 3.1, 13.1	X	X	X	X	X		
Samuel Abebaw	--			X				
Kranav Sharma	1.2, 3.1		X			X	X	
Vikash Kumar Singh	1.2, 3.1, 4.1, 13.1, 13.2							X

Carbon Check internal procedures, the team is outlined below:

Anubhav Dimri: is an appointed Team Leader. He holds a Post Graduate Diploma in Industrial Safety and Environmental Management. He is a trained GHG Lead Auditor. He is participated and passed 5 days ISO 50001 Lead Auditor (UNIDO sponsored) training course. He has experience in the field of Carbon Offsets both in the regulatory and voluntary front, including project validation. He has participated in GS, VCS and CDM validations and validations. He has been involved in the GS Verification of “The Breathing Space Improved Cooking Stoves Programme, India” with GS reference number GS 916. He has also been involved in verification of other GS projects with reference numbers: GS 916, GS 1231, GS 1029, GS 1030, GS 1031, GS 1385, GS 411, GS 1162, GS1352, GS1353. He has been involved in more than 100 CDM projects/programme of activities submitted to UNFCCC for Request for Registration/Inclusion/Request for Issuance. He has also worked on a number of VCS projects. He has also attended Several Gold Standard DOE webinar training. He has also undergone training for ISO 9001, GHG verifier training, and technical area 1.2 training. He is qualified as technical expert for TA 1.1, 1.2, 3.1 and 13.1 under CDM SS/TA categorization.

Samuel Abebaw: is a host country expert for Ethiopia. He holds a Bachelor’s Degree in Engineering from Bahir Dar university, Institute of Technology and Bachelor’s Degree in Economics from Bahir Dar university, from faculty of business and economics. He is working as a General Manager with Venus Consult PLC, Bahir Dar. Samuel is an expert in renewable energy.

Kranav Sharma: holds a Post Graduate in Renewable Energy Engineering and Management. He is a trained GHG Auditor. He has participated in 2 days ISO 14064 training course. He has participated in GS, VCS and CDM validations and verifications. He worked as a consultant in GS Verification of “Energy Efficiency measures in DMRC Phase II stations” with GS reference number GS 1078. He is qualified as technical expert for TA 1.1 and 3.1 CDM SS categories. He is currently actively involved in number of gold standard validations and verifications.

3. VERIFICATION FINDINGS

The findings of the verification are described in the following sections. The verification criteria (requirements), the means of verification and the results of verification are documented in detail in the verification protocol in Appendix A.

3.1 Compliance with the sustainability monitoring plan

The monitoring system complies with the sustainable monitoring plan. All the non-neutral parameters have been discussed in the monitoring report. The "way of monitoring" as stated in the registered PoA-DD/CPA-DD/B04/ and the GS passports/B10/ has been followed. The monitoring parameters and the data in the SD matrix have been checked and cross-checked against the supporting documents. All mitigation measures have been put in place to prevent the violation of the "do no harm assessment" or to neutralise a SDI. A mitigation measure for the Safeguarding Principle No. 8 was required and thus it has been monitored in the monitoring period. Two parameters were required to mitigate for the safeguarding principle:

1. The evidence for the use of safety measures and equipment has been provided in the GS monitoring report/02/. The safety equipment was also checked at the time of site visit by the verification team and the producers were interviewed regarding the safety procedures/I-iii/ /I-v/.
2. The evidence for the training on stove production and possible safety measures during stove production has been provided in the document ID 02/15/ with the training on the safety measures during the stove production. The stove producers and employees were interviewed/I-iii/ /I-v/ with regards to the safety measures during the on-site visit by the verification team.

3.2 Monitoring of Gold Standard Sustainability Indicators

The discussion on any additional parameters that are monitored in accordance with the monitoring plan for sustainability indicators as referred in the Gold Standard Passports for PoA (version 05, dated 22/04/2016) and CPA (version 06, dated 22/04/2016) and GS monitoring report (version 02, 14/07/2016) is provided below.

Indicator	Monitoring Source	Variables, Unit and Frequency of measurement	Assessment
Air quality	Sales records (Database), Sample survey will include question on improvement of air quality (questionnaire along with the monitoring of the stoves)	Number of Improved cook stoves in use Results from question to ICS users during monitoring, if indoor air quality has improved. Sales recorded continously (Database). Reported annually.	The parameter has been calculated by conducting sample surveys with the households and a value of 100 % was determined where the households responded that they perceived better air quality. The parameter also takes into consideration total number of ICS in use. Further it was also checked during the site visit by the verification team and same question was

			asked to the sample households. All the households responded that they perceive better air quality.
Quality of employment	Number of internal and external trainings, description of training.	Trainings for stove producers on stove production and possible safety measures during stove production. Annually. Records will be maintained until the end of the crediting period.	The parameter quality of employment has been monitored by the number of external and internal trainings (related to the project activity) and the description of the trainings. The training reported have been compared with the quality of employment reporting form/15/ and found correct.
Access to affordable and clean energy services	Sales records (Database)	Number of Improved cook stoves in use. Sales are recorded continuously. Reporting about ICS in use and sample survey with questionnaires was performed annually. Records will be maintained until the end of the crediting period.	The parameter has been monitored through the savings of the fuel from use of Improved cookstoves. The values reported have also been compared against the reported values in the PoA-DD/CPA-DD/B04/.
Quantitative employment and income generation	There will be a reporting form to be used by the CME which will record the stove producers working for the PoA, the number of staff and staff positions. Since CPAs are divided by numbers of stoves, not by geographic borders, a clear assignment of staff to the CPAs is not possible. Sample survey will include qualitative question on the savings (time and/or money) due to reduced need of fuel wood for stove users.	Number of jobs created by the project activity. Qualitative question in the monitoring questionnaire on the savings (time and/or money) of stove users due to reduced amount of fuel wood needed for cooking. Annual or biennial (has been monitored annually for the reported monitoring period). Records will be maintained until the end of the crediting period.	The parameter is monitored through the total number of staff and staff positions; also the sample survey questionnaire on the savings (time and/or money) due to reduced need of fuel wood for stove users. The reported values for the staff and staff positions have been checked and compared with the Quantitative employment and income generation form/16/ and the questionnaire has been checked with

			the ER sheet/04/

3.3 Issues remaining from the previous verification period or during validation

There are no pending issues from the validation and since this is the first periodic verification there are no issues applicable to the project activity.

APPENDIX A

Carbon Check
Gold Standard Sustainability Monitoring Protocol

Fuel Efficient Stoves for Ethiopia Programme of Activity in **Federal Democratic Republic of Ethiopia to Report No. CCIPL419/CDM/VER/FESEPoA/20151125**

Carbon Check's Checklist question	Ref.	MoV[1]	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?	/02/ /B04/	DR, 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?	/02/ /B04/	DR, I	No, the methods to monitor data for indicators of sustainable monitoring plan have not been changed. Yes, the methods are suitable for the project scale and type.	OK	OK
1.3 Has the way of monitoring been followed? With the inclusion of data and parameters?	/02/ /B04/	DR, I	Yes, the way of monitoring has been followed with the data and parameters.	OK	OK
1.4 Have mitigation measures been put in place to prevent the risk of the violation of the safe guarding principle of "Do No Harm" assessment or to neutralise a Sustainable Development Indicator that is being monitored?	/02/ /B04/	DR, I	There are no negative indicators for the PoA. Only one safeguarding principle 8 of the "Do No Harm" assessment was rated at medium risk. The mitigation measures were put in place for the safeguarding principle. In accordance with the sustainable monitoring plan in the registered GS CPA passport, the measure has been monitored and appropriate evidence of the measures provided.	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?	/02/ /B04/	DR, I	Yes, all the data in the sustainable development matrix has been verified and cross checked against available sources of project data.	OK	OK

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

Carbon Check's Checklist question	Ref.	MoV[1]	Findings, comments, references, data sources	Draft conclusion	Final conclusion
2. Other					
2.1 Are there any issues from the previous validation/verification? (ie FARs, requests/approvals for RMP)	/02/ /B04/	DR, I	No, there are no issues from the previous validation of the PoA. The reported monitoring is the first monitoring period for the PoA.	OK	OK
2.2 Has the project ever received any requests for reviews or incompletes from the UNFCCC or GS Secretariat?	/02/ /B04/	DR, I	No, the project has not received any requests for reviews or incompletes from the UNFCCC or GS Secretariat.	OK	OK
3.3 The evaluation of the status of mitigation and compensation measures have been verified.	/02/ /B04/	DR, I	Yes, the evaluation of the status of mitigation and compensation measures have been verified.	OK	OK

List of findings

Finding	CAR 01		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The value of the emission reductions in the GS monitoring report does not match with the CDM monitoring report.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The GS monitoring report was adapted to match the emission reduction calculation of the CDM monitoring report.		
DOE Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The value of ERs has been provided in the GS monitoring report with the vintage-wise breakdown in the GS monitoring report. The values are consistent with the CDM monitoring report.		

Finding	**CAR 01**
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

APPENDIX B

Certificates of Competence

Carbon Check (India) Private Ltd.

Anubhav Dimri

has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

For following functions:

Validator	☒	Team Leader	☒	Technical reviewer	☒
Verifier	☒	Technical Expert	☒	Local Expert[1]	☒

In the following Technical Areas:

TA 1.1	☒	TA 3.1	☒	TA 5.2	☐	TA 9.2	☐	TA 13.2	☐
TA 1.2	☒	TA 4.1	☐	TA 8.1	☐	TA 10.1	☐	TA 14.1	☐
TA 2.1	☐	TA 5.1	☐	TA 9.1	☐	TA 13.1	☒		

Vikash K. Singh

Mr. Vikash Kumar Singh
Compliance Officer

Amit

Mr. Amit Anand
CEO

Carbon Check (India) Private Limited
New Delhi

Date of Approval
24/12/2015

Valid Till
23/12/2016

Revision History of the Document

26/12/2014	Initial Adoption
20/01/2016	Revision to reflect updated office address

[1] India, South Africa

CARBON CHECK (INDIA) PRIVATE LIMITED
Registered in India: U74930DL2012PTC232495
Regd. Off: 2071/38, 2nd Floor, Naiwala, Karol Bagh, New Delhi - 110005
Corporate off: G 49 & 50, 3rd Floor, Sector – 3, NOIDA (Uttar Pradesh) – 201301
Tel: +91 120 4373114 / +91 120 2520027 | URL: www.carboncheck.co.in
e-mail: info@carboncheck.co.in

Carbon Check (India) Private Ltd.

Kranav Sharma

has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

For following functions:

Validator	☐	**Team Leader**	☐	**Technical reviewer**	☐
Verifier	☐	**Technical Expert**	☒	**Local Expert**[1]	☒

In the following Technical Areas:

TA 1.1	☐	**TA 3.1**	☒	**TA 5.2**	☐	**TA 9.2**	☐	**TA 13.2**	☐
TA 1.2	☒	**TA 4.1**	☐	**TA 8.1**	☐	**TA 10.1**	☐	**TA 14.1**	☐
TA 2.1	☐	**TA 5.1**	☐	**TA 9.1**	☐	**TA 13.1**	☐		

Vikash K. Singh

Mr. Vikash Kumar Singh
Compliance Officer

Carbon Check (India) Private Limited
New Delhi

Amit

Mr. Amit Anand
CEO

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Tel: +91 120 4373114 / +91 120 2520027 | URL: www.carboncheck.co.in
e-mail: info@carboncheck.co.in

Carbon Check (India) Private Ltd.

Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

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Verifier	☒	**Technical Expert**	☒	**Local Expert**[1]	☒

In the following Technical Areas:

TA 1.1	☐	**TA 3.1**	☒	**TA 5.2**	☐	**TA 9.2**	☐	**TA 13.2**	☒
TA 1.2	☒	**TA 4.1**	☒	**TA 8.1**	☐	**TA 10.1**	☐	**TA 14.1**	☐
TA 2.1	☐	**TA 5.1**	☐	**TA 9.1**	☐	**TA 13.1**	☒		

Mr. Amit Anand
CEO

Carbon Check (India) Private Limited
New Delhi

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