Sustainability Verification Report for the Gold Standard Project Activity

atmosfair gGmbH

Nairobi River Basin Biogas Project In

Kenya

(Gold Standard ID Number GS 939)

Monitoring Period:
31 December 2012 to 30 December 2014 (including both dates)

Report No: CCIPL384/CDMGS/NRBBP/20150601

Revision number: 04

Report Date: 12 December 2015

Carbon Check (India) Private Ltd.
209, 2nd Floor, Vishwadeep Tower, District Centre, Janak Puri, New Delhi – 110058

I. PROJECT DATA

Project title:	Nairobi River Basin Biogas Project			
Registration No. / Date:	GS 939 ; 19/12/2012	Scale:	Small	
Monitoring period:	31/12/2012 – 30/12/2014 (including both the dates)	**Monitoring Period Number:**	1	
Methodology:	AMS I E version 04	Sectoral Scope/Technical Area:	1/1.1	
Publication of MR:	The monitoring report (version 1, 10/07/2015)			
Final Monitoring Report:	version 5, 07/12/2015			
Average emission reductions:	Estimated:	25,594 t CO_2e	Verified:	Total: 2,848 t CO_2e (2012: 2 tCO_2e 2013: 1,083 tCO_2e 2014: 1,763 tCO_2e)
GHG reducing measure/technology:	The purpose of the project activity is to construct and operate domestic biogas units which are fed with cow dung to produce renewable biogas used for cooking and water heating purpose. The project activity is saving greenhouse gas emissions by replacing non-renewable biomass with renewable biogas.			

Party	Project participants	Party considered a project participant	Contract party
Kenya (Host)	Sustainable Energy Strategies Ltd.	No	☐
Germany	atmosfair gGmbH	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
Sanjay Agarwalla	India	1.1, 1.2, 2.1, 3.1, 4.1, 5.1, 5.2, 9.1, 9.2, 13.1	X				X					
Job N Muriuki	India	--			X							
Anubhav Dimri	India	1.1, 1.2, 3.1, 13.1								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
☒	**Anubhav Dimri**	☒ No distribution without permission from the Client or responsible organizational unit
Date: 14/12/2015		☐ Limited Distribution ☐ Unrestricted distribution

Abbreviations

BAU	Business As Usual
CA	Corrective Action / Clarification Action
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entities
DVR	Draft Verification 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)
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
OSV	On Site Visit
QC/QA	Quality control/Quality assurance
SD	Sustainable Development
SDI	Sustainable Development Indicators
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Verification Opinion — summary

Carbon Check (India) Private Ltd. has performed first periodic verification of the CDM/GS project "Nairobi River Basin Biogas Project" and UNFCCC reference number 6549 and GS registry number GS939 for the period 31 December 2012 to 30 December 2014. The verification team assigned by the DOE concludes that the GS Project Activity as described in the registered CDM PDD (version 2.4, dated 11/06/2012) /B06/, GS Passport (version 3.1, dated 19/02/2013) /18/ and monitoring report (version 5, dated: 07/12/2015) /2/, 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 /B01/ as well as the Gold Standard Version 2.1 /B02/.

Verification methodology and process

The Verification team confirms the contractual relationship signed on the (08/06/2015) between the DOE, Carbon Check (India) Private Ltd. and the Project Participant, (atmosfair gGmbH). The team assigned to the verification meets the Carbon Check (India) Private Ltd. 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 PDD (version 2.4 and dated 11/06/2012) including the monitoring plan and the corresponding validation report /B06/ and the Gold Standard Passport /18/, the Sustainability Matrix and monitoring data;
- Confirm the monitoring report /02/ has been made available to the Gold Standard Registry
- Desk review of the MR /01/ and other relevant documents including documents related to the projects activities in emission reductions.
- Review of the applied monitoring methodology (AMS I E version 04) /B03/;
- Review of any CMP and EB decisions, clarifications and guidance and the Gold Standard Secretariat;
- On-site assessment (11/08/2015 – 14/08/2015)
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

In Carbon Checks opinion the project activity was correctly implemented according to selected monitoring methodology /B03/ monitoring plan and the registered PDD. The 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 activity has resulted in the 2,848 tCO_2e emission reductions during the 1st monitoring period. The GHG emission reductions and non-GHG parameters were correctly calculated / monitored on the basis of the approved monitoring methodology AMS I E, Version 04 /B03/ and the monitoring plan contained in the PDD (version 2.4, dated 11/06/2012) /B06/. Carbon Check as a DOE is therefore obliged to issue a positive verification opinion expressed in the attached Certification statement and certify that the emission reductions from the project activity during the above stated period amount to 2,848 tonnes of CO_2 equivalent and the year wise values are as given below;
2012: 2 tCO_2e
2013: 1,083 tCO_2e
2014: 1,763 tCO_2e

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1. INTRODUCTION

The Project Participant has commissioned Carbon Check (India) Private Ltd. to perform an independent verification of the GS project activity "Nairobi River Basin Biogas Project" in non –Annex 1 host country "Kenya" (hereafter referred to as "project activity"). This report summarises the findings of the verification of the project, 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 project activities 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 project activity during a defined monitoring period.

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

The objective of this verification was to verify and certify emission reductions reported for the "Nairobi River Basin Biogas Project" in country "Kenya" for the period 31/12/2012 to 30/12/2014 (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. 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 project's compliance with relevant UNFCCC and host Party criteria are verified in order to confirm that the project has been implemented in accordance with the previously registered project design and conservative assumptions, as documented. And also to confirm that monitoring plan is in compliance with the registered PDD /B06/ and approved monitoring methodology /B03/.

1.2 Scope

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered PDD.
- To verify the implemented monitoring plan with the registered PDD 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 31/12/2012 to 30/12/2014 and based on the registered PDD 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 project activity involves construction and operation of domestic biogas units for individual households. The biogas units are fed with cow dung which produces renewable biogas for cooking and water heating purpose.

The biogas units are of 2 m^3 or 3 m^3 gas storage capacities. The digestion process also generates fertile slurry as a by product which is used as manure in local agricultural thereby generating income. The project activity utilizes “Deenbandhu model 2000” type of biogas units developed by an Indian NGO, Action for Food Production (AFPRO). The gas units are constructed using locally procured materials having a lifetime of over fifteen years.

The project activity is saving greenhouse gas emissions by replacing non-renewable biomass with renewable biogas.

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

The verification team confirm that the project is in line with the plans contained in the registered PDD /B06/.

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, and submission to the Gold Stand Registry and Project Administration System;
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. 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 project activity with respect to registered PDD or approved revised PDD;
    - 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 PDD;
    - 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’s, calibration frequency and monitoring practice in-line with methodology and PDD;

- Review of assumptions made in calculating the emission reduction;
- Implementation of QA/QC procedure in-line with the PDD and methodology requirement.

4. 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: 08/06/2015
- Pre-site visit preparation: 16/07/2015 to 07/08/2015
- On Site Visit 11/08/2015 to 14/08/2015
- Reporting/Calculations/Quality and Control checks : 17/08/2015 to 05/10/2015

2.1 Desk review

The following table outlines the documentation reviewed during the verification:

Ref no.	*Reference Document*
/1/	1. Monitoring Report version 1, dated 10/07/2015; 2. Monitoring Report version 2, dated 19/08/2015; 3. Monitoring Report version 3, dated 04/09/2015; 4. Monitoring Report version 4, dated 01/10/2015
/2/	Final Monitoring Report, version 5, dated 07/12/2015
/3/	Emission reduction calculation spread sheets related to webhosted Monitoring Report /1/
/4/	Final emission reduction spread sheets related to final version of monitoring report /2/
/5/	Evidence for the commissioning of the first biogas unit on 09/10/2010
/6/	Evidence for unique identification of each of the biogas units
/7/	Evidence for the total number of biogas units distributed during the monitoring period for the determination of the monitoring parameter "N_y"
/8/	Evidence for determination of the monitoring parameter "DO_y" during the monitoring period
/9/	Copies of the monitoring survey records for the monitoring period including "traceable check" evidence of the units visited during sampling
/10/	Evidence for the biogas units technical specifications
/11/	Sample biogas units sales receipt
/12/	Training records
/13/	Sampling plan along with sample number generator evidence
/14/	Sample agreement copies with the end users
/15/	Copy of the monitoring manual for the project activity
/16/	Evidence for the monitoring records for the sustainable development parameters: 01. Air quality - Kenya_MP1_Inspection Database_10-07-2015 - Filled out questionnaires for Monitoring Campaign 1 and Monitoring Campaign 2 02. Quality of employment - List of people trained as masons in 2013 and 2014 03. Access to affordable and clean energy services - Kenya_MP1_CER calculation

	04. Quantitative employment and income generation - Staff figure reported by SES 05. Technology transfer and technological self-reliance - Staff figure reported by SES
/17/	Gold Standard Verification Work Plan.
/18/	Gold Standard Passport, version 3.1, dated 19/02/2013

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. CDM Validation and Verification Standard version 09 2. CDM Project Standard version 09
/B02/	Gold Standard specific rule/guidelines/standard: 1. Gold Standard tool kit (GSv2.1_Toolkit) 2. GSv2.1-Requirements 3. GS-annexes to toolkit
/B03/	Applied baseline and monitoring methodology, AMS I E, Version 04
/B04/	Template of MR available on UNFCCC website and Instructions for completing the MR
/B05/	Guideline on the application of Materiality in verifications (version 02.0)
/B06/	CDM Registered PDD (version 2.4 dated 11/06/2012) and the corresponding validation report

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

An OSV was performed by members of the verification team of Carbon Check on (11/08/2015 to 14/08/2015) and the following activities were performed:

i. An assessment of the implementation and operation of the registered project activity as per the registered PDD;
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 PDD;
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 PDD and the selected methodology and corresponding tool(s), where applicable;
vi. A review of 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
1	Sven Bratschke	atmosfair gGmbH	Project implementation and	On site

			operation, monitoring procedure, data and information flow, Sustainability Monitoring Plan, Survey records, Sales/Distribution records, CER calculation and completeness of monitoring report, Electronic Monitoring system, Sampling Plan, QA/QC Procedures, Quality Assurance – Management and operating system	
2	David Karanja	Sustainability Energy Strategies Ltd.	Project implementation and operation, monitoring procedure, data and information flow, Sustainability Monitoring Plan, Survey records, Sales/Distribution records	On site
3	Humphres Kinyairnju	Mason (Stakeholder)	Employment status due to project implementation	On site
4	Mathew Wangai	Mason (Stakeholder)	Employment status due to project implementation	On site
5	Douglas Miruru	Mason (Stakeholder)	Employment status due to project implementation	On site
6	Teresia Njeri	Local Stakeholder (end user)	Onsite inspection and Interview	On site
7	Keziah Wanjiku N	Local Stakeholder (end user)	Onsite inspection and Interview	On site
8	Mercy Waweru	Local Stakeholder (end user)	Onsite inspection and Interview	On site
9	Hannah Ngeene	Local Stakeholder (end user)	Onsite inspection and Interview	On site
10	Anne Gitau	Local Stakeholder (end user)	Onsite inspection and Interview	On site
11	Wambui Njenga	Local Stakeholder (end user)	Onsite inspection and Interview	On site
12	Easter W Njau	Local Stakeholder (end user)	Onsite inspection and Interview	On site
13	Samuel Rukungu	Local Stakeholder (end user)	Onsite inspection and Interview	On site
14	Hannah Muthoni	Local Stakeholder (end user)	Onsite inspection and Interview	On site
15	Agnes W Ndonye	Local Stakeholder (end user)	Onsite inspection and Interview	On site
16	Naomi Nyakinyi	Local Stakeholder (end user)	Onsite inspection and Interview	On site
17	Pauline Wairimu	Local Stakeholder (end user)	Onsite inspection and Interview	On site
18	Shadrack Gachangi	Local Stakeholder (end user)	Onsite inspection and Interview	On site
19	Ann Wanjiru Wanjau	Local Stakeholder (end user)	Onsite inspection and Interview	On site
20	Margaret Njeri Waweru	Local Stakeholder (end user)	Onsite inspection and Interview	On site

21	Margaret Wangechi	Local Stakeholder (end user)	Onsite inspection and Interview	On site
22	Rachel Wanjiru	Local Stakeholder (end user)	Onsite inspection and Interview	On site
23	Mary N Ikuro	Local Stakeholder (end user)	Onsite inspection and Interview	On site

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 PDD /B06/.
- The operational and data collection procedures are implemented as per the monitoring plan in the PDD /B06/.
- 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 project implementation, monitoring practices and achieved emission reductions. In order to ensure transparency a verification protocol is completed for the project activity. 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 project 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 validation 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 project activity.	*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 covered in this section.*	*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 draft verification stage.*	*In case a corrective action or a clarification request the final assessment at the final verification stage is given.*

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 project activity 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 Carbon Check's internal procedures, the team is outlined below:

Verification Team			Type of Involvement							
Full name	**Location**	**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	Trainee TR
Sanjay Agarwalla	India	1.1, 1.2, 2.1, 3.1, 4.1, 5.1, 5.2, 9.1, 9.2, 13.1	X	X	X	X	X			
Job N Muriuki	India	-			X					
Anubhav Dimri	India	1.1, 1.2, 3.1, 13.1							X	

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 PDD /B06/ and GS Passports /18/ 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.

3.2 Monitoring of Gold Standard Sustainability Indicators

Parameters that are monitored in accordance with the monitoring plan for sustainability indicators as referred in the Gold Standard Passport Version 3.1, dated 19/02/2013 /18/ and monitoring report (version 5, dated 07/12/2015) /02/.

Indicator	Monitoring Source	Variables, Unit and Frequency of measurement	Assessment
Air Quality	Inspection data base and question interviewed during sampling process /16/.	Number of biogas units in use. Frequency of measurement is annual survey.	The parameter has been calculated by conducting sample surveys with the 30 sample households in each of the two annual monitoring campaigns in the monitoring period. Values for the 29 operational biogas units for each of the two campaigns were recorded. In the monitoring campaign 1, 27.59 % of the 29 operational households responded with improved air quality with 72.41% as improved / not applicable (this means that air quality has been improved but that they did not perceive respiratory problems before and hence stated not applicable). In the second monitoring campaign 100% of the 29 operational households responded with improved air quality This was cross checked with the survey records and found to be correct and also verified during the OSV interview by the verification team with the sampled households. 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	List of people trained as masons in 2013 and 2014 /16/	Annually once (i.e. once for each monitoring campaign).	7 and 6 masons were trained during the monitoring campaigns one and two respectively during the monitoring period. The trained

			masons could construct a biogas unit without supervision and also train other handyman to become mason. This has been cross checked during the interviews conducted on site visit. The mitigation measures included training to the masons and supervisors for safe construction of biogas units. This was verified during the onsite visit interview by the verification team with the masons.
Access to affordable and clean energy services	Emission reduction calculation spread sheet /17/	Annual	The parameter has been monitored through the total thermal capacity of the installed gas units in a year. The Thermal capacities during the first and second monitoring campaigns were 0.991 MW_{th} and 1.516 MWth respectively which is less than the acceptable limit of 45 MW_{th}.
Quantitative employment and income generation	Staff records of SES /16/	Once per Monitoring Period	The parameter is monitored through the total number of jobs created and their responsibilities. During the current monitoring period 54 masons and handymen, 1 project assistant, 3 marketers and 2 plumbers worked for the project activity. Job: Number Permanent: 3 Temporary: 3 Per Piece: 54 This was verified by the verification team with the records provided by the PP /16-4/.
Technology transfer and technological self-reliance	Sales Records /16/	Once per monitoring period	The technology transfer has been verified as the number of biogas units commissioned till the end of this monitoring period in the host country Kenya under the project activity. This has been cross verified with the sales record /11/.

3.3 Issues remaining from the previous verification period or during validation

This is first periodic verification and there is not pending issue from validation.

APPENDIX A

Carbon Check
Gold Standard Verification Protocol

"Nairobi River Basin Biogas Project" in "Kenya"
to
Report No. CCIPL384/CDMGS/NRBBP/20150601

Table 1

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?	/1/	DR, OSV	Yes, all the non neutral indicators have been monitored as per the sustainability monitoring plan. ~~Subject to closure of CL 01~~	~~CL 01~~	OK
1.2 Have the methods to monitor data changed? And are they suitable to the project scale and type?	/1/	DR	Methods to monitor data have not changed as compared with the monitoring plan in the registered passport and monitoring plan.	OK	OK
1.3 Has the way of monitoring been followed? With the inclusion of dates and parameters?	/1/	DR	The sustainability monitoring plan has been followed as per described in the Passport.	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?	/1/	DR OSV	The mitigation measures have been put in place that has been put in records as a proof of the same. Several supporting documents as listed under section 2.1 have been provided. Also, the physical verification of the households and interviews of the trained personals of PP were performed during on site visit.	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
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?	/1/	OSV	Yes all data in the sustainability development matrix have been verified and cross checked from the supporting documents and during on site visit.	OK	OK
2. Other					
2.1 Are there any issues from the previous validation/verification? (ie FARs, requests/approvals for RMP)	/1//18//B06/	DR	There are no issues pending from the validation and this is first periodic verification.	OK	OK
2.2 Has the project ever received any requests for reviews or incompletes from the UNFCCC or GS Secretariat?	/1//18//B06/	DR	No there are no request for reviews or incomplete for the project.	OK	OK
2.3 The evaluation of the status of mitigation and compensation measures has been verified.	/1//18//B06/	DR	Yes, the status of mitigation and compensation measures has been verified.	OK	OK

List of findings

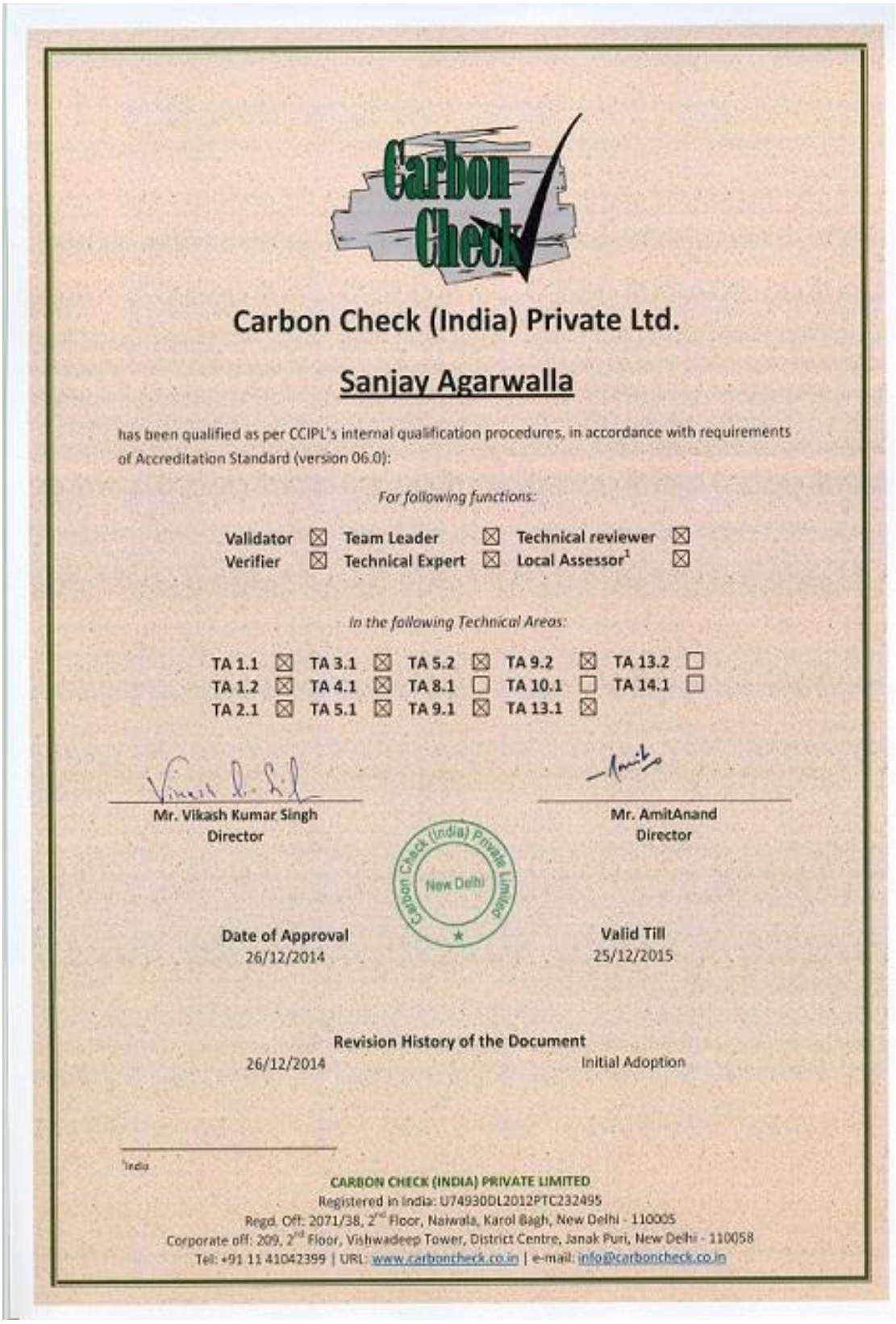
Table 2

Finding (reference 1.1 section of protocol)	**CL 01**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(DOE)*	The total thermal capacity of the project activity as stated in the MR has been added up for two years. PP needs to clarify whether this is in accordance with the applied methodology.		

	PP is requested to provide the registration date of project with Gold Standard.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	PP has corrected and changed the GS MR and stated the total thermal capacity for both Monitoring Campaigns individually instead of summing them up for the overall monitoring period. Thus, the total thermal capacity for Campaign 1 and 2 were 0.99MW and 1.516MW respectively. The GS registration date of the project is 19/12/2012. PP has added the registration date into the GS MR and submitted the revised version (Kenia GS Monitoring Report MP1_v.2.0 19-08-15) to the DOE.
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.*	PP has submitted revised MR with year wise thermal capacity and also the GS registration date has been stated. The CL is closed.
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.

Sanjay Agarwalla

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 Assessor[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. Vikash Kumar Singh
Director

Mr. AmitAnand
Director

Carbon Check (India) Private Limited New Delhi

Date of Approval
26/12/2014

Valid Till
25/12/2015

Revision History of the Document

26/12/2014	Initial Adoption

[1] India

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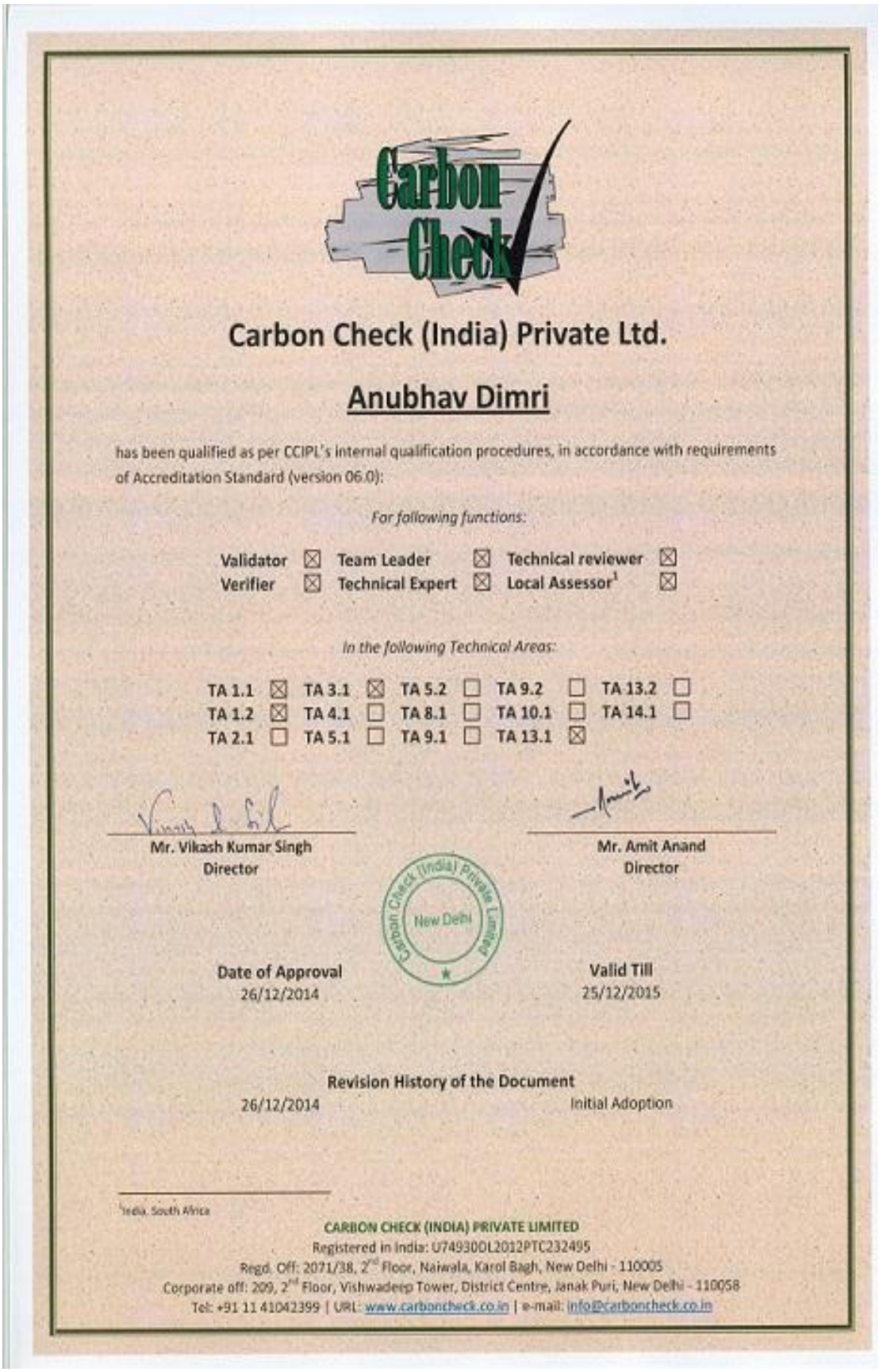
Registered in India: U74930DL2012PTC232495
Regd. Off: 2071/38, 2nd Floor, Nanwala, Karol Bagh, New Delhi - 110005
Corporate off: 209, 2nd Floor, Vishwadeep Tower, District Centre, Janak Puri, New Delhi - 110058
Tel: +91 11 41042399 | URL: www.carboncheck.co.in | e-mail: info@carboncheck.co.in



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 Assessor[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. Vikash Kumar Singh
Director

Mr. Amit Anand
Director

Carbon Check (India) Private Limited New Delhi

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[1] India, South Africa

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Corporate off: 209, 2nd Floor, Vishwadeep Tower, District Centre, Janak Puri, New Delhi - 110058
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