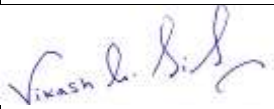
| Verification and certification report form for programme of activities | |
|---|---|
| **BASIC INFORMATION** | |
| **Title and GS reference number of the project** | Municipal Waste Composting in Dschang, Cameroon GS ID 4593 |
| **Version number of the PDD to which this report applies** | 5.0 |
| **Version number of the verification and certification report** | 2.0 |
| **Completion date of the verification and certification report** | 20/03/2023 |
| **Monitoring period number and duration of this morning period** | Third Monitoring Period<br>01/01/2021 - 31/12/2021 (including both days) |
| **Version number of the monitoring report to which this report applies** | 3.0 Dated 14/03/2023 |
| **Activity Requirements applied** | Community Services Activities |
| **Product Requirements applied** | GHG Emission Reduction & Sequestration |
| **Coordinating/managing entity (CME)** | GoodPlanet Foundation |
| **Host Country** | Cameroon |
| **Applied methodologies and standardized baselines** | CDM small-scale methodology: AMS.III-F: "Avoidance of methane emissions through composting", version 12 |
| **Mandatory sectoral scopes** | 13: Waste handling & Disposal |
| **Conditional sectoral scopes, if applicable** | Not applicable |
| **Name and UNFCCC reference number of the VVB** | E-0052: Carbon Check (India) Private Ltd. |
| **Name, position, and signature of the approver of the verification and certification report** |  <br>Vikash Kumar Singh, Compliance Officer |

## SECTION A. Executive summary

>>

**Introduction:**

The Co-ordinating Managing Entity/Project Participant Sustaincert has appointed the VVB, Carbon Check (India) Private Ltd. (CCIPL) to perform independent verification of the GS project activity "Municipal Waste Composting in Dschang, Cameroon" in Cameroon.

The project "Municipal Waste Composting in Dschang, Cameroon" is a project which employs small scale methodology; AMS-III.F Avoidance of methane emissions through composting, version 12. The project involves Municipal Waste Composting in Dschang, Cameroon. This composting facility was started in 2014 and compost production was initiated in a large scale in 2015 Before Project proponent started its composting operations, the project has two production sites: one located in Siteu district, the second in N'gui district. The two production sites are 5.05 km apart. waste is being collected and disposed of on an official Solid Waste Disposal Site (SWDS) designed and implemented between 2006 and 2008. Where it decomposes anaerobically and produces methane. The proposed project technology consists in a Biological Mechanical Treatment (BMT). A BMT system is a form of waste processing operation that combines a physical treatment (both manual and mechanical) and a biological treatment. Project proponent uses a windrow or piles composting method that ensures that the waste is composted aerobically by strictly controlling parameters within the windrows, including: i) temperature ii) oxygen content (O2) and carbon dioxide (CO2). By avoiding the methane-producing anaerobic decomposition of waste that would otherwise occur in landfills, Project proponent's composting activities result in reduced emission of greenhouse gases (GHGs).

This report summarises the verification findings of the project, performed on the basis of Procedures, and CDM methodology requirements & GS4GG requirements, as well as on the basis of given criteria for consistent project operations, monitoring, reporting, and the subsequent decisions by the Gold Standard Secretariat. Verification is required for all registered GS project activities intending to confirm their achieved emission reductions and proceed with a request for issuance of VERs. This report contains the findings and resolutions from the verification along with a certification statement for the certified emission reductions.

**Objective:**

Verification is the process of periodic independent review and ex-post determination of both quantitative and qualitative information by a VVB. In verification, the monitored reductions in GHG emissions that have occurred because of the registered GS project activity during a defined monitoring period are to be verified.

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

The duration of this monitoring period is 01/01/2021 - 31/12/2021 (inclusive of both dates). The objective of this verification was to verify and certify Emission Reductions and SDG benefits achieved for the period of 01/01/2021 - 31/12/2021 (inclusive of both the dates) reported for the "Municipal Waste Composting in Dschang, Cameroon" in the host country "Cameroon".

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

In particular, the monitoring plan, monitoring report, and the project's compliance with relevant UNFCCC, GS, and host Party criteria are verified to confirm that the component project/s has/have been implemented in accordance with the previously registered/included component project design with conservative assumptions, as documented. Also, it is confirmed that the monitoring plan is following the registered/included PDD and the approved monitoring methodology.

Scope:

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered/included PDD.
- To verify the implemented monitoring plan with the registered/included 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 are free from material misstatement.
- To verify that reported GHG emission data are sufficiently supported by evidence.

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 covering the monitoring period from 01/01/2021 - 31/12/2021 and based on the registered/included PDDs including the monitoring plan, emission reduction calculation spreadsheet, monitoring methodology and all related evidence provided by the project participant.

The verification team assigned by the VVB concludes that the PDD (Version 5.0, dated 27/11/2018), all relevant requirements of the GS4GG requirements and UNFCCC for CDM project activities including article 12 of the Kyoto Protocol and paragraph 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 and Gold Standard Secretariat. The verification has been conducted in line with the GS4GG requirements for Microscale project requirements in Version 1.2

The voluntary project activities were correctly implemented according to the selected monitoring methodology, monitoring plan, and the approved revised PDD. The monitoring system was implemented, 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 of documents and information shared by the CME, the verification team confirms that the project has resulted in emission reductions during the third monitoring period as follows: 3,816VERs.

CCIPL, as a VVB, is therefore pleased to issue a positive verification opinion expressed in the attached Certification statement.

## SECTION B. Verification team

### B.1. Verification team, technical reviewer, and approver[1]

Carbon Check (India) Private Ltd. has appointed a competent team as per the UNFCCC Accreditation Standard, GS4GG requirements and CCIPL's internal procedures. Further details regarding team competence can be found in Appendix 2. The team is outlined below:

| Sr. No. | Role | Type of resource | Last name | First name | Affiliation (e.g., name of central or other office of VVB or outsourced entity) |
|---|---|---|---|---|---|
| 1. | Team Leader/Technical Expert | IR | Agarwalla | Sanjay Kumar | CCIPL |
| 2. | Team member/Technical expert | IR | Sharma | Harish | CCIPL |
| 3. | Trainee Assessor | IR | Bankar | Siddhant | CCIPL |
| 4. | Technical Reviewer | IR | C. | Indhumathi | CCIPL |
| 5. | Approver | IR | Singh | Vikash Kumar | CCIPL |

## SECTION C. Application of materiality in conducting the verification

### C.1. Consideration of materiality in planning the verification

| No. | Risk that could lead to material errors, omissions, or misstatements | Assessment of the potential risk | | Assessment of the records/information/interview with personnel to check controls/ mitigation measures |
|---|---|---|---|---|
| | | Risk level | Justification | |
| 1. | **Human Error:** Recording and reporting of the information in the ER spreadsheet. | *Medium* | *All the ER spreadsheet data of the, including sales database, determination of parameter for efficiency testing including data calculation. This includes all the parameters to be monitored ex-post as per the PDD* | *The risk will be mitigated by reviewing the training records of the personnel involved in the data capture and calculations. The monitoring responsibilities will be reviewed. Also, the ER data/claulations will be cross checked to insure the errorfree data.* |
| 2. | **Information System:** Use of spreadsheets without adequate controls related to data changes/updates, version tracking, | *Medium* | *The data is recorded in the spreadsheets based on the raw data collected during the field visits. The access to the spreadsheets for calculation of ERs,* | *The identified risk will be mitigated by reviewing the management of access to the records. It will be confirmed through interviews whether the raw data is collected by the field personnel and then transmitted* |

[1] Confirming to the GS requirements of paragraph 2.2 of RU 2020 PR - PR, V1.2 (validation and verification by same VVB), VVB confirms that it was not involved in any kind of validation activity of the project.

| No. | Risk that could lead to material errors, omissions, or misstatements | Assessment of the potential risk | | Assessment of the records/information/interview with personnel to check controls/ mitigation measures |
|---|---|---|---|---|
| | | Risk level | Justification | |
| | traceability, and security. | | *monitoring and sales database and baseline efficiency testing of project & baseline and other quality test records.* | *and stored electronically to the PP's office. The data quality control to be checked.* |
| 3. | Accuracy of the measuring equipment | *High* | *Check the calibration records for the measurement equipment used for conducting efficiency test/or monitoring/measuring the values.* | *The risk due to accuracy of the measuring equipment will be ensured by planning to check calibration certificates of the measuring equipment used for stove efficiency.* |
| 4. | Competence of personnel involved in operations, monitoring, record keeping and other quality test etc. | *Low* | *Interview of the personnel involved and check the training records / accreditation certificates involved in conducting such tests/activities.* | *The risk will be mitigated by reviewing the training records of the personnel involved in conducting such tests and by following the monitoring responsibilities. For institutions involved in conducting such tests, their accreditation certificates will be checked to establish their competencey. The training records and certificates will be reviewed which will also be confirmed during the onsite interviews.* |

## C.2. Consideration of materiality in conducting the verification

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The project is a Micro-scale, project activity achieving total emission reductions of <10,000 tons of CO2e per year; as such, a 10 percent materiality threshold is applied. The threshold of materiality was evaluated based on §13 of Guideline "Application of materiality in verifications" Version 2.0 It was concluded that the materiality threshold applicable to the project activity based on actual emission reductions achieved is 10% of 3,816 $tCO_2e$ [2] which is equal to 381 $tCO_2e$.

In planning the verification, the verification team took cognizance of §11 of the "Guideline: Application of materiality in verifications" Version 02.0. A materiality threshold of 381 $tCO_2e$ is determined in line with §326 (e) of "CDM validation and verification standard for project activities", version 3.0.

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

1. Monitoring system including the data input procedure (including relevant personnel and applicable template forms used)
2. Statutory Approvals and clearances as per host country requirement
3. ER sheet (application of data)
4. Data flow
5. Data control procedures
6. Monitoring survey records

In conducting the verification, VVB took cognizance of §13 of the guideline "Application of materiality in verifications" Version 02.0 and based on the input of data from different sources checked. Data flow was checked through a comparison of data in hand-written forms, electronic database, and ER sheet /2/. The competence of the personnel involved in conducting standardized tests rrecording of data, and calculation of the emission reduction data have been checked by the verification team by means of Interviewing the personnel involved in conducting such tests/activities.

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

Mitigation of Human error risks: The verification team mitigated the risk by checking the training records of the personnel and assessing their competencies, skills, monitoring/testing procedure followed, understanding of the monitoring survey forms, protocol, and testing procedure, etc. Further, data was crosschecked with the ER calculation spreadsheet /2/ and the sample raw data.

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

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

Competence of personnel involved in conducting standardized tests: Verification team has reviewed the abilities, qualifications, and recognition of involved personnel and institutions of the team involved in standardized tests has been checked by the verification team by means of Interviewing.

In conducting the verification, VVB took cognizance of §13-17 of the Guideline: "Application of materiality in verifications" (version 2.0) and based on the input of data from different sources checked electronically and physically to insure the reasonable level of assurance.

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

## SECTION D. Means of verification

### D.1. Desk/document review

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

### D.2. On-site inspection

GS4GG Programme of Activity Requirements version 2.0, VVB requires conducting an on-site inspection for transition projects. Furthermore, an on-site visit is done for the validation activity. The following activities have been carried out during the on-site visit.

The validation team has carried out on-site interviews to assess the information included in the project design document, and stakeholder consultation report. During the desk review, the relevant records related to project design, implementation, and operation were checked, stakeholders

engaged, and implementing agency and onsite beneficiary interviews with stakeholders were taken on a sampling basis.

### D.3. Interviews

| No. | Name | Organization | Date | Topic | Team member |
|---|---|---|---|---|---|
| /1/ | SAGNE Joel | ERA Cameroon (Local coordinator carbon monitoring manager) | 04/09/2022 | •Discussion on the stated goal and policy of the Project activity.<br><br>•Discussion on the sustainability, environmental impact, local stakeholders meeting procedure, baseline scenario, additionality and monitoring plan, Start date<br><br>• Discussion on the GS Project activity-PDD and VPA-DDs, eligibility criteria and its compliance, ongoing financial need, SDG impact, eligibility criteria for inclusion of VPA in the Project activity, safeguarding principles, stakeholder consultations and grievance mechanism in line with GS4GG, requirements.<br>• Overall project management, waste collection and handling database, Review of fixed monitoring parameters, Record checking for monitoring parameters | Sanjay Agarwalla, Harish Sharma, |
| /2/ | KEMLEU TCHABGOU Jacquis Gabriel | Lord Mayor of Dschang Council (Mayor/Municipal Corporation) | 04/09/2022 | Project Introduction | Sanjay Agarwalla, Harish Sharma, |
| /3/ | NGNIKAM Emmanuel | ERA Cameroon (National coordinator) | 04/09/2022 | Project Introduction and Presentation | Sanjay Agarwalla, Harish Sharma, |
| /4/ | SIME NGUESSOU Felix | Municipal waste management agency (Dschang council) (Waste collection manager) | 05/09/2022 | Waste collection procedure, waste handling during transportation of waste. | Sanjay Agarwalla, Harish Sharma, |
| /5/ | FOGAP Linus | Dschang Council (Communicator) | 05/09/2022 | Overall communication | Sanjay Agarwalla, |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | Harish Sharma, |
| /6/ | Fapong Leon Josiaste | Municipal waste management agency (Dschang council) (Compost sales manager) | 05/09/2022 | Sales data, Type of users, end user's database | Sanjay Agarwalla, Harish Sharma, |
| /7/ | Tassemo Temfack Roxy | Municipal waste management agency (Dschang council) (Responsible of composting sites) | 05/09/2022 | Composting procedures and different phases of the composting process, Handling, and storage of compost, ensuring aerobic storage | Sanjay Agarwalla, Harish Sharma, |
| /8/ | Fomat MBOKOUO KO Pascal | Municipal waste management agency (Dschang council) (Director) | 05/09/2022 | Overall Project Management, stakeholder coordination and information management | Sanjay Agarwalla, Harish Sharma, |
| /9/ | ANAFACK KENTIA espe MOMO S.Gaelle | Municipal waste management agency (Dschang council) (Financial manager) | 05/09/2022 | Sales and purchase Records, Invoices, Salary Records, Electricity Bills | Sanjay Agarwalla, Harish Sharma, |
| /10/ | Kenzo youbi | Municipal waste management agency (Dschang council) (Household sensitizer) | 06/09/2022 | Process of sensitization, mode of communication, training records, campaign records | Sanjay Agarwalla, Harish Sharma, |
| /11/ | NANFACK Magellan | TAANKH (Manager) | 06/09/2022 | End-user compost handling procedure to ensure GHG-free application | Sanjay Agarwalla, Harish Sharma, |
| /12/ | AYEMKEM Valdes | TAANKH (Organic products sales manager) | 06/09/2022 | End-user compost handling procedure to ensure GHG-free application | Sanjay Agarwalla, Harish Sharma, |

### D.4. Site Inspection

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Carbon Check has conducted an on-site inspection and checked the following things:

1) An assessment of the implementation and operation of the project activity as per the registered GS4GG PDD.
2) A review of information aggregating and reporting of the monitoring parameters.
3) Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP.
4) A cross-check between product sales information provided in the MR and data from other sources.
5) A check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the GS4GG PDD and the applied monitoring methodologies.

6) A review of calculations and assumptions made in determining the GHG data and ERs.
7) An identification of QA/QC procedures in place to prevent, or identity and correct, any errors or omissions in the reported monitoring parameters.

In addition, the verification team interviewed the PP, and it was confirmed that the waste prior to the project was sent to an SWDS site. Thus, the baseline scenario is in compliance with the requirements of the methodology.
The verification team carried out on-site interviews with representatives of PP from 04/09/2022 to 06/09/2022 in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the GS4GG.

## SECTION E. Verification findings

### E.1. General

### E.1.1. Compliance of the monitoring report with the monitoring report form

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Findings** | - |
| **Conclusion** | CME has used the GS4GG template Monitoring Report, version 1.1. The verification team confirms that the latest available version of the monitoring report template has been used by the CME and the MR is in compliance with the monitoring report form and related template guide Monitoring Report, version 1.1.<br>This confirms compliance with § 352 & § 353 of CDM VVS project activity Version 03.0 and GS4GG requirements. |

### E.1.2. Remaining forward action requests from validation and/or previous verifications

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There were two (2) FAR raised in the previous verification for the current monitoring period. The FAR 1 has been verified during site visit whereas against FAR 2, CAR 3 has been raised.

No **FAR** is raised during this monitoring period.

### E.2. Programme of activities

### E.2.1. Compliance of the program implementation with the registered program design document

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | CCIPL by means of on-site interview document review assessed that all physical features (technology, project equipment, and monitoring equipment) of the included project activity are in place and that the coordinating/managing entity has operated project as per the registered PDD.<br><br>There are no deviations or proposed or actual changes in the implementation or operation of the project. |

| | |
|---|---|
| | The verification team confirms the actual operation of the project implementation and operation in compliance with the registered PDD in order to confirm the compliance of GS4GG requirements. |

### E.2.2. Implementation and operation of the management system

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | The project management system including the record-keeping system has been explained in the PDD. During verification, the verification team based on a review of provided documents, site interviews, and observations has assessed this management system. The verification team evaluated the management systems in place to implement the monitoring of the project activity. This included the roles and responsibilities of the monitoring staff, data collection, transfer and aggregation procedures, data storage, and archiving procedure for the monitoring system.<br><br>Monitoring surveys were conducted by the team of Good planet foundation. To ensure the completeness and accuracy of monitoring information, an electronic database is operated and maintained by the project implementer. This information is further maintained by the CME.<br><br>The responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan. The details about the monitoring system have been provided in the Monitoring report.<br><br>The verification team confirms that the monitoring management system of the GS4GG is in place, with the responsibilities properly identified and in place. This confirms the compliance of Microscale project requirements V1.2 & Principal and requirement V1.2 of GS4GG. |

## E.3. Voluntary project activities

**>>**

NA

### E.3.1. Compliance of monitoring activities with the registered monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the PDD. This conclusion has been made based on the assessment below.

#### E.3.1.1. Data and parameters fixed ex-ante or at the renewal of crediting period

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | The verification team confirms that the Data and parameters fixed ex-ante are in compliance with the monitoring plan. Please refer Appendix 5 for detailed analysis of the ex-ante parameters.<br><br>The verification took cognizance of VVS project activity Version 03.0 and GS4GG requirements. |

#### E.3.1.2. Data and parameters monitored

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | The Verification team confirms that the Data and parameters monitored are in compliance with the PDD and the monitoring plan. A complete assessment of each of the monitored parameters has been provided in Appendix 6 of the verification report.<br><br>The verification took cognizance of VVS project activity Version 03.0 and GS4GG requirements. |

### E.3.2. Compliance with the calibration frequency requirements for measuring instruments

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | Different tests and weight measurements are carried out during the process of composting from CME reports were submitted to the verification team as per methodology from CDM of AMS-III.F – Avoidance of methane emissions through composting", (Version 12). To confirm equipment used during this process are good to use and reliable calibration certificates were submitted and witnessed during site-visit for the measuring instruments used by CME. |

### E.3.3. Emission Reduction Quantification

Assessment of data and calculation of emission reductions or net removals
In line with the requirement of CDM Methodology AMS-III.F – Avoidance of methane emissions through composting", (Version 12) the verification team has reviewed the Monitoring report /1/ and ER spreadsheets /2/ to check the arithmetic calculation of the emission reductions. The equation used for the calculation is compared with those provided in the PDD and CDM Methodology AMS-III.F – Avoidance of methane emissions through composting", (Version 12).

#### E.3.3.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | Baseline are the methane emissions avoided from preventing waste disposal at the solid waste disposal site. These emissions are calculated as follow:<br><br>$$BE_{CH_4,SWDS,x} = \varphi.(1-f).GWP_{CH_4}.(1-OX).\frac{16}{12}.F.DOC_f.MCF.\sum_{x}^{Z}\sum_{j}W_{j,y}.DOC_j.e^{-k_j.(Z-x)}.(1-e^{-k_j})$$<br><br>Where:<br><br>$BE_{CH4, SWDS,y}$ — Methane emissions avoided during the year y from preventing waste disposal at the solid waste disposal site (SWDS) during the period from the start of the project activity to the end of the year y in (tCO2e)<br>ϕ — Model correction factor to account for model uncertainties<br>F — Fraction of methane captured at the SWDS and flared, combusted or used in another manner<br>$GWP_{CH4}$ — Global warming potential (GWP) of methane, valid for the relevant commitment period<br>F — Fraction of methane in the SWDS gas (volume fraction) |

| | |
|---|---|
| | $DOC_f$ Fraction of degradable organic carbon (DOC) that can decompose<br>MCF Methane correction factor<br>$W_{j,k}$ Amount of organic waste type j prevented from disposal in the SWDS in the year x (tons).<br>$DOC_j$ Fraction of degradable organic carbon (by weight) in the waste type j<br>$K_j$ Decay rate for the waste type j<br>j Waste type category<br>X Year for which methane emissions are calculated<br>Z Final year considered for methane emissions calculation.<br><br>Considered:<br><br>$$K = \varphi.(1-f).GWP_{CH_4}.(1-OX).\frac{16}{12}.F.DOC_f.MCF$$<br>independent from the year and from the waste type.<br><br>The verification team confirms that the calculation of baseline emission and emission reductions is in accordance with the applied methodological equation and the PDD. Calculations have been checked and confirmed from the ER spread sheet /2/.<br><br>The verification took cognizance of VVS project activity Version 03.0 and GS4GG requirements. |
| | |

### E.3.3.2. Calculation of project GHG emissions or actual net GHG removals by sinks

| | |
|---|---|
| **Means of verification** | Document Review, Interview, and Site Visit. |
| **Conclusion** | From the PDD and interviews it explained in the project GHG emissions are from:<br>**i)** CO2 emissions on account of electricity used by the project activity facilities for screening and mechanical sorting of compost.<br>**ii)** Methane emissions during composting process<br>**iii)** Nitrous oxide emissions during composting process<br><br>To Calculate above parameters following Equations have been used:<br><br>$$PE_{comp,y} = PE_{EC,y} + PE_{CH4,y} + PE_{N2O,y}$$<br>Where:<br><br>$PE_{comp,y}$ Project activity emissions in the year "y" (tonnes of CO2 equivalent)<br>$PE_{EC,y}$ Emissions from electricity consumption in the year "y",<br>$PE_{CH4,y}$ Methane emissions during composting process during year "y"<br>$PE_{N2O,y}$ Nitrous oxide emissions during composting process during year "y"<br><br>**Emissions from electricity consumption**<br><br>$$PE_{y,power} = EE_y * EF_{CO2} * (1+ TDL)$$<br>Where<br>EEy Electrical energy consumption in the year y (kWh)<br>$EF_{CO2}$ CO2 emission factor from electricity produced from fossil fuel |

| | |
|---|---|
| | TDL — Average technical transmission and distribution losses for providing electricity to source j in year y<br><br>**Methane emissions during composting process**<br><br>$$PE_{y,comp} = Q_y * EF_{composting} * GWP_{CH4}$$<br>Where<br>$Q_y$ — Quantity of raw waste treated in the year y (tonnes)<br>$EF_{composting}$ — Emission factor for composting of organic waste (t CH4/ton waste treated).<br>$GWP_{CH4}$ — Global warming potential (GWP) of methane, valid for the relevant commitment period<br><br>**Nitrous oxide emissions during composting process**<br><br>Nitrous Oxide emissions are calculated following the default values of the tool to determine "TOOL13: Project and leakage emission from composting" V1.0.<br><br>$$PE_{N2O,y} = Q_y * EF_{N2O,y} * GWP_{N2O}$$<br>Where<br>$Q_y$ — Quantity of waste composted in year y (t/yr)<br>$EF_{N2O,y}$ — Emission factor of methane per tonne of waste composted valid for year y (t N2O / t)<br>$GWP_{N2O}$ — Global warming potential of N2O (TCO2e/t N2O) |

### E.3.3.3. Calculation of leakage GHG emissions

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | As per para 6 of the applied methodology, the CME has conducted the site visit to analyse the applicability of leakage emissions. It is found that the project activity doesn't qualify any of the criteria for considering the leakage emission. Hence, leakage emission deemed to be zero. |

### E.3.3.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Conclusion** | The verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence, and calculations are done in accordance with the pre-defined formulae from PDD. The total number of ERs achieved during the monitoring period is 3,816 VERs.<br><br>In summary, the verification team confirms that the actual emission reduction is lower than the estimate of the PDD for the current monitoring period.<br><br>The verification took cognizance of VVS project activity Version 03.0 and GS4GG requirements. |

| Title and UNFCCC reference number | Baseline emissions or baseline net GHG removals by sinks ($tCO_2e$) | Project emissions or actual net GHG removals by sinks ($tCO_2e$) | Leakage ($tCO_2e$) | GHG emission reductions or net GHG removals by sinks ($tCO_2e$) | |
|---|---|---|---|---|---|
| | | | | Amount achieved from 1 Jan 2021 to 31 Dec 2021 | Amount achieved in the monitoring period |
| Municipal Waste Composting in Dschang, Cameroon GS4593 | 4,324 | 508 | - | 3,816 | 3,816 |

### E.3.3.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates

| | |
|---|---|
| **Means of verification** | Document Review |
| **Findings** | - |
| **Conclusion** | Comparison of the actual GHG emission reductions with the estimates in the included is given in the below table. The verification team took cognizance of VVS project activity Version 03.0 and GS4GG requirements |

| Title and UNFCCC reference number | Actual values achieved during this monitoring period | Value estimated in ex-ante calculation in the included PDD |
|---|---|---|
| Municipal Waste Composting in Dschang, Cameroon GS4593 | 3,816 | 6,557 |

### E.3.3.6. Remarks on difference from estimated value from PDD

| | |
|---|---|
| **Means of verification** | Document review |
| **Findings** | - |
| **Conclusion** | The actual emission reductions are less than the ex-ante estimated values in the PDD. |

### E.3.4. Assessment of reported sustainable development co-benefits

| | |
|---|---|
| **Means of verification** | Document Review, Interview |
| **Findings** | - |
| **Conclusion** | The Verification team confirms that the data and parameters monitored related to sustainable development co-benefits are in compliance with the PDD and the monitoring plan. A complete assessment of each of the monitored parameters has been provided in Appendix 6 of the verification report.<br><br>The verification took cognizance of VVS project activity Version 03.0 and GS4GG requirements. |

## SECTION F. Internal quality control

>>

The final verification report passed a technical review. A technical reviewer qualified in accordance with the CCIPL's qualification scheme for CDM validation and verification has performed the technical review.

## SECTION G. Verification opinion

>>

Carbon Check (India) Private Ltd. has performed the third verification of the GS project GS4593 "Municipal Waste Composting in Dschang, Cameroon" in Cameroon.
The verification team assigned by the VVB concludes that the, GS4593 as described in the PDD (Version 5.0, dated 27/11/2018) and the Monitoring report (Version 3.0, dated 14/03/2023) meet all relevant GS4GG requirements and requirements of the UNFCCC for CDM project activities including article 12 of the Kyoto Protocol and paragraph 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.

Verification methodology and process:

The Verification team confirms the contractual relationship signed on 18/07/2022 between the VVB, Carbon Check (India) Private Ltd. And SustainCert the entity authorised by Co-ordinating Managing Entity/ Project Participant, (Good planets Foundation). The team assigned to the verification meets the Carbon Check (India) Private Ltd.'s internal procedures including the UNFCCC and GS requirements for the team composition and competence. The verification team has conducted a thorough contract review as per UNFCCC and Carbon Check's procedures and requirements.

The verification is being performed as per the requirements described in the VVS project activity Version 03.0 and GS4GG principle & requirements for microscale version 1.2 and constitutes the review and completion of the following steps:

- Reviewing the GS4593 Monitoring Report (Version 3.0, dated 14/03/2023), the monitoring plan and the corresponding verification report.
- Previous verification and certification reports and the monitoring reports for the previous monitoring periods.
- Desk review of the validation report, MR, and other relevant documents including documents related to the project activities in emission reductions
- Review of the applied monitoring methodology (AMS.III-F: "Avoidance of methane emissions through composting", version 12).
- Review of any CMP and EB decisions, clarifications, and guidance.
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

The project was correctly implemented according to the selected monitoring methodology, monitoring plan, and PDD. The monitoring system was installed, 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, the verification team confirms that the project has resulted in the 3,816 $tCO_2e$ of emission reductions for the 01/01/2021 to 31/12/2021 (inclusive of both dates) during the third monitoring period for and achieved SDG benefits as detailed in Appendix 6 for the period.

Verified emission reductions:

| Reference number | Emission Reductions ($tCO_2e$) |
|---|---|
| GS 4593 | 3,816 |

CCIPL as a VVB is therefore pleased to issue a positive verification opinion in the attached Certification statement.

**SECTION H. Certification statement**

>>

Carbon Check (India) Private Ltd., the VVB, has performed the verification of the project activity GS 4593 “Municipal Waste Composting in Dschang, Cameroon” in “Cameroon”. The Project activity involves Municipal Waste Composting in Dschang, Cameroon. This composting facility was started in 2014 and compost production was initiated in a large scale in 2015 before Project proponent started its composting operations, the project has two production sites: one located in Siteu district, the second in N’gui district. The two production sites are 5.05 km apart. waste is being collected and disposed of on an official Solid Waste Disposal Site (SWDS) designed and implemented between 2006 and 2008. Where it decomposes anaerobically and produces methane. The proposed project technology consists in a Biological Mechanical Treatment (BMT). A BMT system is a form of waste processing operation that combines a physical treatment (both manual and mechanical) and a biological treatment. Project proponent uses a windrow or piles composting method that ensures that the waste is composted aerobically by strictly controlling parameters within the windrows, including: i) temperature ii) oxygen content (O2) and carbon dioxide (CO2). By avoiding the methane-producing anaerobic decomposition of waste that would otherwise occur in landfills, Project proponent’s composting activities result in reduced emission of greenhouse gases (GHGs).

It is VVB’s responsibility to express an independent verification statement on the reported GHG emission reductions from the component project/s. The VVB does not express any opinion on the selected baseline scenario or on the validated and registered Project activity-DD/VPA-DD. The verification is carried out in line with the CDM VVS project activity and GS4GG requirements.
The verification was performed to identify the compliance of the component project with implementation and monitoring requirements, and to verify the actual amount of emission reductions achieved by project, through obtaining evidence that included

i) Checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and

ii) The collection of evidence supporting the reported data.

The verification is based on:

- PDD, Version 5.0 dated 27/11/2018.
- Monitoring period for GS 4593 is 01/01/2021 to 31/12/2021 (inclusive of both dates).
- Approved CDM monitoring methodology AMS.III-F: “Avoidance of methane emissions through composting”, version 12
- Validation report for the PDD.
- Monitoring report Version 3 dated 14/03/2023_/1/

This statement covers the verification period from 01/01/2021 to 31/12/2021 (inclusive of both dates).

The VVB had raised Zero (0) FAR, four (4) clarifications, and twelve (12) Corrective action requests which have been resolved by the CME.

The VVB considers it necessary to give reasonable assurance that reported GHG emission reductions were calculated correctly on the basis of the monitoring methodology and that the monitoring plan contained is fairly stated.

The VVB, hereby certifies that the project activity, achieved emission reductions by sources of GHG equal to 3,816 $CO_2e$ for the period 01/01/2021 to 31/12/2021 (inclusive of both dates).and achieved SDG benefits as detailed in Appendix 6 for the period 01/01/2021 to 31/12/2021 (inclusive of both the dates) and all monitoring requirements have been fulfilled and is substantiated by an audit trail that contains evidence and records.

**Appendix 1. Abbreviations**

| Abbreviations | Full texts |
|---|---|
| AQL | Acceptable Quality Limit |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction |
| CAR | Corrective Action Request |
| CCIPL | Carbon Check (India) Private Ltd. |
| CER | Certified Emission Reduction |
| CL | Clarification Request |
| CME | Co-ordinating and Managing entity |
| VPA | Voluntary Project Activity |
| VPA-DD | Voluntary Project Activity Design Document |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| DR | Document review |
| DVR | Draft Verification Report |
| EB | CDM Executive Board |
| EF | Emission Factor |
| EI | External individual |
| FA | Final Approval |
| FAR | Forward Action Request |
| FVR | Final verification Report |
| GHG | Greenhouse gas(es) |
| GS4GG | Gold Standard for the Global Goals |
| GWh | Giga Watt Hour |
| I | Interview |
| IPCC | Intergovernmental Panel on Climate Change |
| IR | Internal resource |
| MP | Monitoring Period |
| MWh | Mega Watt Hour |
| MR | Monitoring Report |
| PoA | Programme of Activities |
| PoA-DD | Programme of Activities Design Document |
| PP | Project Participant |
| QC/QA | Quality control /Quality assurance |
| SDG | Sustainable Development Goal |
| TA | Technical Area |
| TR | Technical Review |
| TRF | Transition Request Form |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UQL | Unacceptable Quality Limit |
| VVS | Validation and Verification Standard |
| VVB | Validation & Verification Body |

## Appendix 2. Competence of team members and technical reviewers

Carbon CHECK

**Carbon Check (India) Private Limited**

# Certificate of Competency

## Mr. Sanjay Agarwalla

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

*for the following functions and requirements:*

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

*in the following Technical Areas:*

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

**Issue Date**
1st January 2023

**Expiry Date**
31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

# Carbon Check (India) Private Limited

## Certificate of Competency

### Mr. Harish Sharma

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

*for the following functions and requirements:*

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

*in the following Technical Areas:*

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

**Issue Date**

**1st January 2023**

**Expiry Date**

**31st December 2023**

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

# Carbon Check (India) Private Limited

## Certificate of Competency

### Ms. Indumathi C

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

*for the following functions and requirements:*

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

*in the following Technical Areas:*

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

**Issue Date**

1st January 2023

**Expiry Date**

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

## Appendix 3. Documents reviewed or referenced

| Sr. No. | Author | Description of project | Provider |
|---|---|---|---|
| /1/ | Goodplanet Foundation | GS 4593_Monitoring Report_V3_2023_03_14 | CME |
| /2/ | Goodplanet Foundation | GS 4593_Confidential_VER_Cals_14032023 | CME |
| /3/ | Goodplanet Foundation | GS4593_PDD_CompostingDschang_V5_27 11 2018 | CME |
| /4/ | Goodplanet Foundation | Calibration certificate weighing machine | CME |
| /5/ | Goodplanet Foundation | Compost sales data 2021 | CME |
| /6/ | Goodplanet Foundation | Compost_sales_receipt | CME |
| /7/ | Goodplanet Foundation | Confidential_Characterization Campaign jan-dec 2021 NGUI | CME |
| /8/ | Goodplanet Foundation | Confidential_Characterization Campaign jan-dec 2021 SITEU | CME |
| /9/ | Goodplanet Foundation | Confidential_list_employees_site_Ngui_déc 2021 | CME |
| /10/ | Goodplanet Foundation | Confidential_list_employees_site_Siteu_déc 2021 | CME |
| /11/ | Goodplanet Foundation | Confidential_salary 02_05_06_12_2021 | CME |
| /12/ | Goodplanet Foundation | Confidential_salary_Dec_2021_list employees | CME |
| /13/ | Goodplanet Foundation | Declaration_no_legal_contest_complains | CME |
| /14/ | Goodplanet Foundation | EIA_report_French | CME |
| /15/ | Goodplanet Foundation | Electricity bills | CME |
| /16/ | Goodplanet Foundation | ERA commercial visits to farmers | CME |
| /17/ | Goodplanet Foundation | Grievance register | CME |
| /18/ | Goodplanet Foundation | Guide provided to farmers on compost application | CME |
| /19/ | Goodplanet Foundation | IPCC_AR6_WGI_FullReport | CME |
| /20/ | Goodplanet Foundation | Justification of weighing machines calibration | CME |
| /21/ | Goodplanet Foundation | Scan_validation doc from Govt_republic of Cameroon | CME |
| /22/ | Goodplanet Foundation | TDB_PV_AMGED_Décembre 2021 vf | CME |
| /23/ | Goodplanet Foundation | Vehicle maintenance bill_depannage camionnette LT 199 GB | CME |
| /24/ | Goodplanet Foundation | Vehicle maintenance bill_depannage camionnette | CME |
| /25/ | Goodplanet Foundation | Vehicle maintenance bill_pneus camionnette LT 199 GBet vehicule OU 839 AY | CME |

| | | | |
|---|---|---|---|
| /26/ | Goodplanet Foundation | Windrow Turning | CME |

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

# 4.1 Clarifications (CLs)

**Table 1 CLs from this verification**

| **CL ID** | 01 | **Section no.** | NA | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| It is found that the waste processing capacity of both plants is being continuously increased. CME to justify the increase in capacity utilization of plant. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| It should be noted that the initial maximum waste processing capacity of the two sites is 10,000 tonnes per year. The important parameters influencing the annual increase in the quantities of waste processed are i) the number of employees on the sites and ii) the total quantity of waste supply. The gradual increase from year to year in the quantities of waste treated on the two sites can be explained by the control of the pre-collection of waste by tricycles, collection by trucks and the increase in the number of employees on the composting sites. | | | | |
| **Documentation provided by project participant** | | | | |
| Please refer to the Excel sheet: “12_TdB suivi collecte_Décembre 2021”. | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| The clarification is in line with section A.3.2 of the certified PD. CL is closed. | | | | |

| **CL ID** | 02 | **Section no.** | Table 1 | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| CME to provide the Justification for the change in GWP value of CH4 and N2O for the current monitoring period. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The GWP values are considered from the IPCC report: IPCC Sixth Assessment Report: Climate Change 2021. Please refer the Chapter 7, table 7.15, page number 1017 in the submitted document | | | | |
| **Documentation provided by project participant** | | | | |
| *IPCC Sixth Assessment Report: Climate Change 2021* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| The values are consistent with the source document, CAR Closed. | | | | |

| **CL ID** | 03 | **Section no.** | Table 1 | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| On reviewing the monthly data of compost production vs sales, it is found that in many instances the production of compost is more than its sales due to which storage need to be done,<br><br>Furthermore, as per para 28 of the applied methodology, “in case compost is subject to anaerobic storage or disposed of in a SWDS, leakage shall be estimated to account for methane emissions from the anaerobic decay of compost. The relevant procedures in the leakage part of the methodological tool “Project and leakage emissions from composting” shall be followed.<br><br>CME to justify the reason for not considering leakage emission due to storage of compost. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |

| |
|---|
| Unsold compost is not stored anaerobically in bags, but in a heap under a shed which in aerobic condition. For justification, we have provided the photos as below. Therefore, it is not considered as leakage emission as the produced compost is dry before selling it to potential clients. |
| **Documentation provided by project participant** |
|   |
| **GS VVB assessment** **Date:** 14/10/2022 |
| The storage is being handled in an anaerobic condition; CL is closed. |

| | | | | |
|---|---|---|---|---|
| **CL ID** | 04 | **Section no.** | D.2 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| PP to clarify that how the weight fraction of waste type j in the sample n collected during the year k is in conformity with the QA/QC procedure prescribed by NF X30 – 408 and NF XP X30 - 466 standards. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The characterizations of the waste carried out monthly on each site make it possible to determine the fraction corresponding to each type of waste according to the protocol used. The reference excel document on characterization have been provided for verification. | | | | |
| **Documentation provided by project participant** | | | | |
| *Please refer the Excel files on waste characterisation:*<br>*Confidential_Characterization Campaign jan-dec 2021 NGUI*<br>*Confidential_Characterization Campaign jan-dec 2021 SITEU* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| The characterizations data of the waste types assessed. Furthermore, the characterization process also witnessed during site visit. CL is closed. | | | | |

## 4.2 Corrective action required (CARs)

**Table 2 CARs from this verification**

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 01 | **Section no.** | N/A | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| 1. As per GS database final version of DD is 4.0, CME to update the version suitably in the MR.<br>2. Indexing under the key project information should be updated as per the template.<br>3. CME to clarify in the MR weather the start and end dates mentioned are included in the monitoring period or not. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| 1. The final version of the PDD is : “GS4593_PDD_CompostingDschang_V5_27 11 2018”. The last version of the PDD has not been made available on the GS registry. We have sent a mail to the GS to upload the version 5 of the PDD on the registry project page.<br>2. The MR has been revised.<br>3. The MR includes the start and end dates, and the MR has accordingly revised. | | | | |

| Documentation provided by project participant | |
|---|---|
| 1. *GS4593_PDD_CompostingDschang_V5_27 11 2018*<br>2. *Revised monitoring report*<br>3. *Revised monitoring report.* | |
| **GS VVB assessment** | **Date:** 14/10/2022 |
| 1. As CME confirmed the final certified version of DD as 5, the CAR is closed.<br>2. The MR updated; CAR Closed.<br>3. The MR updated; CAR Closed. | |

| **CAR ID** | 02 | **Section no.** | N/A | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| As round-up of a fraction for calculating the emissions is not recommended, CME need to round down the fraction to the nearest whole number throughout the MR. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The MR was rechecked, and the required data has been rounded up in the revised document. | | | | |
| **Documentation provided by project participant** | | | | |
| *Revised Monitoring report* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| Final Emission Reduction has been rounded down to 3,692 $tCO_2e$, however, at few sections the earlier figure is reflecting. Moreover, in table under section E.4, the values of baseline estimates and project estimates need to be updated. **CAR is open.** | | | | |
| **Project participant response** | | | | **Date:** 25/10/2022 |
| The values for the baseline were rounded down and project emission were also rounded up as a conservative approach. The correct values are now provided in the section E.4 of the revised MR. | | | | |
| **Documentation provided by project participant** | | | | |
| | | | | |
| **GS VVB assessment** | | | | **Date:** 29/10/2022 |
| The final emission reduction value is updated and is consistent throughout MR; CAR is closed. | | | | |

| **CAR ID** | 03 | **Section no.** | B 1.1 | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| In reference to Forward Action Request # 2 of earlier MR, the CME is requested to submit the database and record of all ERA commercial visits. The information should be tabulated in the relevant section of the MR also. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The database of ERA commercial visits to farmers has been submitted for verification. | | | | |
| **Documentation provided by project participant** | | | | |
| Excel file Database: “ERA commercial visits to farmers” | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| ERA visit records received, The reference to the database is provided in the MR. CAR is closed. | | | | |

| **CAR ID** | 04 | **Section no.** | A.1 & D.4 | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| The data showing no. of wheelbarrows and average load of respective months need to be provided in ER Calculation sheet. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The data for the wheelbarrows has been added in the revised ER calculation sheet. Please refer the sheets - “NGUI” & “SITEU” | | | | |
| **Documentation provided by project participant** | | | | |
| Revised ER calculation sheet. | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| ER sheet updated; CAR Closed. | | | | |

| **CAR ID** | 05 | **Section no.** | C | **Date:** 09/09/2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |

| |
|---|
| The weight fraction of weight type j is presented in the MR and ER sheet, however, CME need to transparently present the data and procedure for arriving the final values of the fraction. |
| **Project participant response** **Date:** 21/09/2022 |
| An average of the values obtained for each month and for each composting platform was calculated and considered for the calculations. The above explanation has been provided in the revised MR |
| **Documentation provided by project participant** |
| *Revised monitoring report.* |
| **GS VVB assessment** **Date:** 14/10/2022 |
| MR updated; CAR Closed. |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 06 | **Section no.** | C | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| The source of parameters mentioned in section D.1 is not correct. CME to update the relevant source of the parameters like Ox, DOC, F, MCF, $k_j$ and $DOC_j$. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The source of parameters were corrected in the revised monitoring report. | | | | |
| **Documentation provided by project participant** | | | | |
| *Revised monitoring report.* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| Sources of the parameters has been corrected in the updated MR; CAR Closed. | | | | |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 07 | **Section no.** | D.2 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| In section D.2, total amount of organic waste prevented from disposal i.e. “parameter SDG 13 – Wx” for siteu site is not consistent with ER sheet.<br>Further, the data against QA/QC procedure of parameter “SDG 13 – Wx” mentioned in the MR need to be submitted. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The data were checked and corrected in the revised monitoring report. | | | | |
| **Documentation provided by project participant** | | | | |
| *Revised monitoring report and the revised ER calculation sheet.* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| The revised MR is updated, data is provided in the updated ER worksheet. Under additional comments of the parameter “SDG 13 – Wx” the version number to be updated as per latest ER worksheet**. CAR is open.** | | | | |
| **Project participant response** | | | | **Date:** 25/10/2022 |
| The reference of the ER worksheet with the correct version (GS 4593_Confidential_VER_Cals_V2), has been updated throughout the revised MR. | | | | |
| **Documentation provided by project participant** | | | | |
| | | | | |
| **GS VVB assessment** | | | | **Date:** 29/10/2022 |
| The MR has been updated; CAR is closed. | | | | |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 8 | **Section no.** | D.2 | **Date:** 14/09/2022 |
| **Description of CAR** | | | | |
| The auxiliary power consumption data for each plant need to be separately mentioned in the MR and ER sheet. Furthermore, the calibration certificate of both billing meter needs to be submitted. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The electricity meters are the property of the electricity distribution company called “Eneo”. These meters are sealed and not subject to calibration. | | | | |
| **Documentation provided by project participant** | | | | |
| | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| The data is assessed in the ER sheet, however, the version number of the reference source worksheet need to be updated in the MR for the parameter. Furthermore, the version of the ER worksheet to be made consistent throughout the MR. **CAR is open.** | | | | |
| **Project participant response** | | | | **Date:** 25/10/2022 |

| |
|---|
| The reference of the ER worksheet with the correct version (GS 4593_Confidential_VER_Cals_V2), has been updated in the revised MR. |
| **Documentation provided by project participant** |
| |
| **GS VVB assessment** **Date:** 29/10/2022 |
| MR updated for the correct version; CAR is closed. |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 9 | **Section no.** | D.2 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| CME needs to submit the following documents for records.<br>1. Sales receipt on sample basis.<br>2. Snapshot of grievance register being maintained at the site.<br>3. Air and water quality test report and the calibration certificate of the measuring equipment used for the quality test.<br>4. The information on the type of crops on which the compost is applied. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The requested documents have been submitted for verification. | | | | |
| **Documentation provided by project participant** | | | | |
| *Please refer the following pdf documents:*<br>• *Compost sales data 2021*<br>• *Compost_sales_receipt*<br>• *EIA_report_French*<br>• *Calibration certificate weighing machine*<br>• *Guide provided to farmers on compost application*<br>• *ERA commercial visits to farmers provides the details on the type of crops on which the compost is applied* | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| Data evidenced during site visit, the copy of data is also received. CAR Closed. | | | | |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 10 | **Section no.** | D.2 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| In section D.2 against parameter SDG 11, it is claimed that a study about the environmental impact of the project was carried out for both the sites – Ngui and Siteu. Also, claimed that as per the report, no water or air quality problem has been raised by the project. Furthermore, it is mentioned that the report was also reviewed and validated by the governmental agency – "Divisional Delegation of Environment, Protection of Nature and Sustainable Development" of the Republic of Cameroon.<br><br>In reference to the statement, CME is requested to submit the Environmental impact study along with the validation document provided by "Divisional Delegation of Environment, Protection of Nature and Sustainable Development" of the Republic of Cameroon. | | | | |
| **Project participant response** | | | | **Date:** 21/09/2022 |
| The environmental impact document has been provided for verification. Please refer the summary in English of the EIA document, page 7.<br>And the validation letter stating "avis favorable"/ "favorable view" for the project. Please refer the page 1, 4th paragraph. | | | | |
| **Documentation provided by project participant** | | | | |
| Pdf document - EIA_report_French<br>Scan_validation doc from Govt_republic of Cameroon | | | | |
| **GS VVB assessment** | | | | **Date:** 14/10/2022 |
| Found in conformity with the statement. CAR is closed, | | | | |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 11 | **Section no.** | D.2 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |

| | |
|---|---|
| In section E.2, it mentioned that the various scans and pieces of document linked to this monitoring report are separately provided on the GS registry. CME is requested to submit the listed documents. | |
| Project participant response | **Date:** 21/09/2022 |
| The requested documents are provided for verification. | |
| **Documentation provided by project participant** | |
| | |
| **GS VVB assessment** | **Date:** 22/10/2022 |
| Ok, CAR is closed. | |

| | | | | |
|---|---|---|---|---|
| **CAR ID** | 12 | **Section no.** | Table 1 | **Date:** 09/09/2022 |
| **Description of CAR** | | | | |
| Number of employees mentioned in the MR are not consistent with the employment data provided till may 2021. CME to submit the employment data as per the number of employees claimed in MR. | | | | |
| Project participant response | | | | **Date:** 21/09/2022 |
| The project activity employees both permanent and temporary positions. The average number of employees during year is reported to be 59 in the monitoring period. Few scans of salaries slips are provided for verification. | | | | |
| **Documentation provided by project participant** | | | | |
| *Pdf document: "Confidential_salary_Dec_2021_list employees"* | | | | |
| **GS VVB assessment** | | | | **Date:** 22/10/2022 |
| Data assessed; CAR Closed. | | | | |

**Appendix 5. Data and parameters fixed ex-ante**

**SDG 13: Climate Action**

| **Parameter** | **ϕ** |
|---|---|
| **Data unit:** | - |
| **Description** | Model correction factor to account for model uncertainties |
| **Default values used:** | 0.85 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| **Parameter** | **Ox** |
|---|---|
| **Data unit:** | - |
| **Description** | Oxidation factor (reflecting the amount of methane from SWDS that is oxidized in the soil or other material covering waste) |
| **Default values used:** | 0.1 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| **Parameter** | **F** |
|---|---|
| **Data unit:** | - |
| **Description** | Fraction of methane in the SWDS gas (volume fraction) |
| **Default values used:** | 0.5 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| **Parameter** | **$DOC_f$** |
|---|---|
| **Data unit:** | - |
| **Description** | Fraction of degradable organic carbon (DOC) that can decompose |
| **Default values used:** | 0.5 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| **Parameter** | **MCF** |
|---|---|
| **Data unit:** | - |
| **Description** | Methane correction factor |
| **Default values used:** | 1 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| **Parameter** | **$DOC_j$** |
|---|---|
| **Data unit:** | - |
| **Description** | Fraction of degradable organic carbon (by weight) in the waste type j |

| | |
|---|---|
| **Default values used:** | **Waste type j** / **DOCj (% wet waste)**<br>Wood and wood products: 43<br>Pulp, paper and cardboard (other than sludge): 40<br>Food, food waste beverages and tobacco (other than sludge): 15<br>Textiles: 24<br>Garden, yard and park waste: 20<br>Glass, plastic, metal and other inerts: 0 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| | |
|---|---|
| **Parameter** | **$k_j$** |
| **Data unit:** | 1/year |
| **Description** | Decay rate for the waste type j |
| **Default values used:** | **Waste type j** / **Weather wet and tropical**<br>Slowly degrading: Pulp, paper and cardboard (other than sludge), textiles: 0.07<br>Slowly degrading: Wood and wood products and straw: 0.035<br>Moderately degrading: Other (non-food) organic putrescible garden and park waste: 0.17<br>Rapidly degradin: Food, food waste, sewage sludge, beverages and tobacco: 0.40 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL4: Emissions from solid waste disposal sites" Version 08 |

| | |
|---|---|
| **Parameter** | **$EF_{power}$** |
| **Data unit:** | $t_{CO2}$/MWh |
| **Description** | Emission factor for grid electricity |
| **Default values used:** | 1.3 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" EB 39 Annex 7 May 16th 2008 |

| | |
|---|---|
| **Parameter** | **$EF_{CH4,default}$** |
| **Data unit:** | $t_{CH4}$/T |

| | |
|---|---|
| **Description** | Default emission factor of methane per ton of waste composted (wet basis) |
| **Default values used:** | 0.002 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL13 Project and leakage emissions from composting" Version 1.0 |

| | |
|---|---|
| **Parameter** | **$EF_{N2O,default}$** |
| **Data unit:** | tN2O/T |
| **Description** | Default emission factor of methane per ton of waste composted (wet basis |
| **Default values used:** | 0.0002 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | CDM "Methodological TOOL13 Project and leakage emissions from composting" Version 1.0 |

| | |
|---|---|
| **Parameter** | **$GWP_{CH4}$** |
| **Data unit:** | $t_{CO2e}/t_{CH4}$ |
| **Description** | Global warming potential of CH4 |
| **Default values used:** | 28 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | GS_document-"Applicability of Global warming potential for Gold Standard for the Global Goals Projects", page 2, table 1[2] |

| | |
|---|---|
| **Parameter** | **$GWP_{N2O}$** |
| **Data unit:** | $t_{CO2e}/t_{N2O}$ |
| **Description** | Global warming potential of N2O |
| **Default values used:** | 265 |
| **Purpose of data** | To calculate VERs |
| **Source and Verification of the source** | GS_document-"Applicability of Global warming potential for Gold Standard for the Global Goals Projects", page 2, table 1[3] |

[2] https://globalgoals.goldstandard.org/ru-2020-applicability-of-global-warming-potential-for-gold-standard-for-the-global-goals-projects/

[3] https://globalgoals.goldstandard.org/ru-2020-applicability-of-global-warming-potential-for-gold-standard-for-the-global-goals-projects/

## Appendix 5. Data and parameters monitored

| | |
|---|---|
| **Data/parameter:** | SDG 13 - $f_y$ |
| **Unit** | - |
| **Description** | Fraction of methane captured at the SWDS and flared, combusted or used in another manner that prevents the emissions of methane to the atmosphere in year y. |
| **Source of data** | Historical data on the amount captured on the SWDS by the municipality or the entity managing the SWDS |
| **Value(s) applied** | 0 |
| **Measurement methods and procedures** | - |
| **Monitoring frequency** | Once a year |
| **Purpose of data:** | - |
| **Additional comments:** | NA |
| **VVB assessment** | CME has provided EIA_report to prove historical data on the amount captured on the SWDS by the municipality or the entity managing the SWDS |

| | |
|---|---|
| **Data/parameter:** | SDG 13 - $W_x$ |
| **Unit** | Tons |
| **Description** | Total amount of organic waste prevented from disposal in year |
| **Source of data** | Measurements by ERA (local team) |
| **Value(s) applied** | • Ngui : 3,571<br>• Siteu : 1,072<br>• **Total: 4,644** |
| **Measurement methods and procedures** | The methodological tool “project and leakage emissions from composting” allows two different methods to calculate the amount of composted waste.<br>Option 1: Procedure using a weighing device will be preferably used when available on site<br>Option 2 is based on the calculation of carrying capacity of each truck delivering waste to the composting site.<br><br>In Dschang’s case, in absence of a truck weighing device, and as the load of the trucks is very variable not only with the season, but also with the volume of waste to be transported, we have chosen a local adaptation of the option 2, based on the count of the number of wheelbarrows used to transport waste on the platform and on the calculation of the carrying capacity of these wheelbarrows.<br>Once each truck has been unloaded, the heterogeneous waste is submitted to a first separation stage producing two more homogeneous flows: |

| | |
|---|---|
| | - organic fraction flow (organics) which is fed to the composting windrows (with wheelbarrows);<br>- and the flow of non-compostable waste (transported with wheelbarrows), considered as a final refuse, to be disposed in the SWDS. The total amount of organic waste, Wx, delivered to each of both composting installations (Siteu and Ngui) is the yearly sum of these two flows. The total amount of organic wastes is calculated on the basis of the wheelbarrow load (carrying capacity) of corresponding products multiplied by the number of wheelbarrows. The average carrying capacity of the wheelbarrows is defined for each product twice per year (one for the dry season and one for the wet season) on the basis of a representative number (10) of measurements of the carrying capacity of the wheelbarrows. The carrying capacity of the wheelbarrows is determined thanks to the weighing machine available on the site, calibrated following the legal local regulation. The procedure is explained in the section C, part iii) page 9 to 12 of the monitoring report. |
| **Monitoring frequency** | 10 times per month |
| **Purpose of data:** | Emission reduction calculations |
| **Additional comments:** | NA |
| **VVB assessment** | CME has provided ER sheet with a values provided by measured by ERA Cameroon. |

| | |
|---|---|
| **Data/parameter:** | SDG 13 - $P_{n,j,x}$ |
| **Unit** | % |
| **Description** | Weight fraction of the waste type j in the sample n collected during the year x |
| **Source of data** | Characterization of raw waste made by ERA Cameroun in 2021 for ex-ante calculation.<br>The figure used for emission reduction calculations are the mean of 12 different characterizations done from (01/01/2021)to (31/12/2021). |
| **Value(s) applied** | |
| **Measurement methods and procedures** | A characterization is done every month by ERA Cameroun according to the characterization protocol on incoming waste (composed of six types of waste described by the methodology). Please refer to the excel files “Characterization Campaign jan-dec 2021”. |

| **Type j** | **Weight fraction** |
|---|---|
| Wood and wood products | 2% |
| Pulp, paper and cardboard | 5% |
| Textiles | 7% |
| Food, food waste, beverages and tobacco | 72% |
| Garden, yard and park waste | 13% |
| Glass, plastic, metal and other inert waste | 1% |

| | |
|---|---|
| **Monitoring frequency** | Monthly |
| **Purpose of data:** | Emission reduction calculations |
| **Additional comments:** | NA |
| **VVB assessment** | CME has provided the values for weight fractions of waste in ER sheet which has been crosschecked with waste segregation database. |

| | |
|---|---|
| **Data/parameter:** | SDG 13 - $EE_y$ |
| **Unit** | Kwh |
| **Description** | Electrical energy consumption for compost production in year y. |
| **Source of data** | Electricity meter. |
| **Value(s) applied** | 909 |
| **Measurement methods and procedures** | Measured by electricity meter. |
| **Monitoring frequency** | Once a month |
| **Purpose of data:** | Emission reduction calculations |
| **Additional comments:** | During the operation, the actual energy consumption is monitored through the electricity meter and crossed checked with the distribution company invoices.<br>A sample of a scanned copy of the Electricity bills are provided for verification. |
| **VVB assessment** | CME has provided the electricity bills against the values as well as during onsite visit meter has been checked. |

| | |
|---|---|
| **Data/parameter:** | SDG 2: Proportion of agricultural area under productive and sustainable agriculture / $Q_{y,treatment}$ |
| **Unit** | Tons of compost |
| **Description** | Quantity of compost produced in year y |
| **Source of data** | ERA's recording |
| **Value(s) applied** | 271 |
| **Measurement methods and procedures** | Total quantity of the compost bags weighed and packed in sacks, are recorded by the team on the platform. The compost records are cross-checked by the project manager of the composting site. |
| **Monitoring frequency** | When necessary |
| **Purpose of data:** | Estimating net benefits for the SDG 2. |
| **Additional comments:** | Considering the project budget and the high cost to monitor the "proportion of agriculture area under production and sustainable agriculture", the project activity has provided the total amount of compost produced per year, which is sold to local farmers for agriculture use, ensuring a sustainable and resilient agricultural practice. |

| | |
|---|---|
| | Please refer to the ER calculation excel sheet – "GS 4593_Confidential_VER_Cals_V2": Sheet Year5. 2021 – Cell D47 |
| **VVB assessment** | VVB has cross-checked the values with both sales records and process analysis. |

| | |
|---|---|
| **Data/parameter:** | SDG 8: Proportion of informal employment in non-agriculture employment, by sex / Number of workers |
| **Unit** | Number |
| **Description** | Total number of workers employed due at the composting site of the project activity |
| **Source of data** | Employment contracts |
| **Value(s) applied** | 59 |
| **Measurement methods and procedures** | - |
| **Monitoring frequency** | When necessary |
| **Purpose of data:** | Monitoring the SDG 8 - Promote inclusive and sustainable economic growth, employment and decent work for all |
| **Additional comments:** | Few scan copies of the payslips were provided for verification, please refer to the pdf document on the "salary" paid during the year 2021. |
| **VVB assessment** | CME has provided an employment contract on sample-based and payslips, same witnessed during onsite visit. |

| | |
|---|---|
| **Data/parameter:** | SDG 11: Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities /<br>i) Total amount of organic waste treated into compost<br>ii) Compost analysis and its application for agriculture<br>iii) Air and water quality near the surrounding areas of the waste composting facilities |
| **Unit** | i) tons of organic waste treated in year<br>ii) tons of compost sold in year<br>- number of clients monitored by the commercial team<br>iii) number of complaints about air and/or water quality |
| **Description** | This parameter is to ensure the application of compost to organic soil and assure no foul odours or water pollution in the surrounding areas of the activity. |
| **Source of data** | ERA's commercial visits record. Sales and delivery record<br>For air and water, an Inhabitants Complaint book is maintained at the site. |
| **Value(s) applied** | i) 4,644 tons of organic waste were treated in 2021<br>ii) 183 tons of compost were sold in 2021<br>iii) 0 complaint about air and/or water quality |

| | |
|---|---|
| **Measurement methods and procedures** | Compost: The total amount of compost sold is maintained and recorded by the project team. It is done through on-site visits on a representative sample of clients. Sheets of good practices on the use of compost (written in French) are drafted, discussed and made available to users.<br>Air Quality: The air quality due to the project activity is also monitored in this parameter to assure that there are no complaints of foul odours from the surrounding inhabitants.<br>Water Quality: By measuring the water quality into the situe wells. |
| **Monitoring frequency** | Compost: Sales visits are done twice a year to the main clients.<br>Air Quality: once a year by the project manager.<br>Water Quality: Once a year by the project manager. |
| **Purpose of data:** | Monitoring the SDG 11 - Make cities inclusive, safe, resilient and sustainable |
| **Additional comments:** | NA |
| **VVB assessment** | VVB has checked all ERA's commercial visits record. Sales and delivery record for air and water, an Inhabitants Complaint book at the site which has been witnessed during on-site visit. |

**Sustainable Development Contributions Achieved**

| Sustainable Development Goals Targeted | SDG Impact | Amount Achieved | Units/ Products |
|---|---|---|---|
| | | **Amount achieved from 1st January 2021 to 31st December 2021** | |
| SDG 13: Climate Action (mandatory) | Emission reductions | 3,816 | **VER's** |
| SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture | Production of compost for agriculture | 271 | **Tons** |
| SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all | Creation of jobs | 59 | **Number of people employed** |

| | | | |
|---|---|---|---|
| SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable | Compost sold to local population | 183 | **Tons** |

Furthermore, as per on-site interviews conducted, it was represented that no disputes, inputs and comments have been received via the Continuous Input and Grievance Mechanism during this monitoring period too.

**APPENDIX 7. Assessment of Safeguarding Principles**

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

| | | | |
|---|---|---|---|
| | adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources. | | |
| | 2. Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work:<br>(a) Where appropriate for the implementation of a Project activity/VPA, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities. | Not relevant | This is not relevant for the project activity. |
| | (b) Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status. | Not relevant | This is not relevant for the project activity. |
| | (c) Ensure that these conditions do not limit the access of women or men, as the case may be, to Project activity/VPA participation and benefits. | Not relevant | This is not relevant for the project activity. |
| | 3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks | No gender risks are envisaged in the Project activity. | There are no gender risks envisaged during the project activity. No mitigation measure required. The validation team confirms that Project activity fulfils the GS requirement outlined in the para 3.2.3 of the GS4GG safeguarding principles requirements version 1.2. |

| | | | |
|---|---|---|---|
| | 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s) | Not relevant | This is not relevant for the project activity. |
| Principle 3. Community Health, Safety and Working Conditions | The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community | NA | NA |
| Principle 4.1 Sites of Cultural and Historical Heritage | Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture? | Not relevant | This is not relevant for the project activity. |
| Principle 4.2 Forced Eviction and Displacement | Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)? | Not relevant | This is not relevant for the project activity. |
| Principle 4.3 Land Tenure and Other Rights | Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? | Not relevant | This is not relevant for the project activity. |
| Principle 4.4 Indigenous People | Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples? | NA | This is not relevant for the project activity. |
| Principle 5. Corruption | The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects | NA | NA |
| Principle 6.1 Labour Rights | 1. The Project Developer shall ensure that all employment is in compliance with national labour | NA | NA |

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

| | | | |
|---|---|---|---|
| | documentation and reporting of accidents and incidents, and emergency preparedness and response measures | | |
| Principle 6.2 Negative Economic Consequences | Does the project cause negative economic consequences during and after project implementation? | NA | NA |
| Principle 7.1 Emissions | Will the Project increase greenhouse gas emissions over the Baseline Scenario? | The Project activity reduces GHG emissions relative to baseline scenario | NA |
| Principle 7.2 Energy Supply | Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users? | CME has considered the grid energy being used and shown as project emission. | The validation team confirms that Project activity fulfils the GS requirement outlined in the para 3.7.2 of the GS4GG safeguarding principles requirements version 1.2. |
| Principle 8.1 Impact on Natural Water Patterns/Flows | Will the Project affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity? | Not applicable | This is not relevant for the project activity. |
| Principle 8.2 Erosion and/or Water Body Instability | Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? | NA | NA |
| Principle 9.1 Landscape Modification and Soil | Does the Project involve the use of land and soil for production of crops or other products? | Not applicable | This is not relevant for the project activity. |

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

| | | | |
|---|---|---|---|
| Principle 9.9 Animal husbandry | Will the Project involve animal husbandry? | Not applicable | This is not relevant for the project activity. |
| Principle 9.10 High Conservation Value Areas and Critical Habitats | Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified? | Not applicable | This is not relevant for the project activity. |
| Principle 9.11 Endangered Species | Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)?<br><br>AND/OR<br><br>Does the Project potentially impact other areas where endangered species may be present through transboundary affects? | Not applicable | This is not relevant for the project activity. |

**APPENDIX 8: Gold Standard Verification Protocol**

| CCIPL's Checklist question | Ref. | MoV[4] | Findings, comments, references, data sources | Draft conclusion | Final conclusion |
|---|---|---|---|---|---|
| **1. Sustainability Monitoring** | | | | | |

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

| CCIPL's Checklist question | Ref. | MoV[4] | Findings, comments, references, data sources | Draft conclusion | Final conclusion |
|---|---|---|---|---|---|
| 1.1 Have all non-neutral indicators been monitored as per the sustainability monitoring plan? | - | DR, | 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? | - | I | 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? | - | I | The sustainability monitoring plan has been followed as described in the Passport. | OK | OK |
| 1.4 Have mitigation measures been put in place to prevent the risk of the violation of the safeguarding principle of the "Do No Harm" assessment or to neutralize a Sustainable Development Indicator that is being monitored? | - | DR | The PROJECT ACTIVITY doesn't involve any large set up or organization base that can be qualified as significant for a "Do Not Harm" procedures. | OK | OK |
| 1.5 Has all the data in the Sustainability development matrix been verified and cross-checked against available sources of project data? Has it been described how sustainable development would be affected if a variance occurred? | - | DR | Yes, all data in the sustainability development matrix have been verified and cross-checked from the supporting documents/data and during the on-site audit. | OK | OK |
| 2. Other | - | | | | |
| 2.1 Are there any issues from the previous validation/verification? (ie FARs, requests / approvals for RMP) | - | DR | No | OK | OK |

| CCIPL's Checklist question | Ref. | MoV[4] | Findings, comments, references, data sources | Draft conclusion | Final conclusion |
|---|---|---|---|---|---|
| 2.2 Has the project ever received any requests for reviews or incompletes from the UNFCCC or GS Secretariat? | - | DR | No there are no requests for reviews or incomplete for the project. | OK | OK |
| 2.3 The evaluation of the status of mitigation and compensation measures has been verified. | - | DR | Yes, the status of mitigation and compensation measures has been verified. | OK | OK |