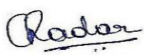


**Verification and certification report form for
GS CDM project activities (Version 04.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and GS reference number of the project activity	Gianyar Waste Recovery Project (GS7561)
Scale of the project activity	<input type="checkbox"/> Large-scale <input checked="" type="checkbox"/> Small-scale
Version number of the verification and certification report	1.0
Completion date of the verification and certification report	22/09/2023
Monitoring period number and duration of this monitoring period	Monitoring period no: 02 Duration: (01/01/2021) to (31/12/2021)
Version number of the monitoring report to which this report applies	2.0
Crediting period of the project activity corresponding to this monitoring period	04/11/2018 to 03/11/2023 (Fixed)
Project participants	Mr. Sean Nino Lotze
Host Party	Indonesia
Applied methodologies and standardized baselines	AMS-III.F.: Avoidance of methane emissions through composting, Version 12.0
Mandatory sectoral scopes	Sectoral Scope 1 and 13
Conditional sectoral scopes, if applicable	NA
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	9,198tCO ₂ e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	7,797tCO ₂ e
Name of the VVB	4K Earth Science Private Limited
Name, position and signature of the approver of the verification and certification report	 Chandrakala R MANAGING DIRECTOR

SECTION A. Executive summary

4K Earth Science Private Limited (4KES) has been commissioned by “M/s Community Reconstruction of Social Service (CROSS)” to perform an independent verification of its registered GS CDM project “Micro Scale Biogas CDM Project of CROSS”, GS Ref# GS7561 for the reported GHG emission reductions for the given monitoring period 01/01/2021 - 31/12/2021 (both dates included). The GS CDM projects must undergo independent third-party verification and certification of emission reductions as the basis for issuance of Gold Standard verified Emission Reductions (GS VERs). The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the registered PDD and revised PDD and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- Monitoring report and other supporting documents are complete;
- The actual monitoring systems & procedures and monitoring report conforms with the requirements of the approved monitoring plan and the approved monitoring methodology;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.

Scope:

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on review of monitoring report, supporting information and

- (a) The registered CDM PDD & GS PDD
- (b) The approved methodology mentioned in the GS PDD
- (c) The registered monitoring plans
- (d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board
- (e) Applicable Gold Standard tool kit
- (f) CDM Validation and Verification Standard (VVS)
- (g) All information and references relevant to the project activity's resulting in emission reductions
- (h) Information related to monitoring of SD parameters

The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

4KES has based on the recommendations in the latest version of CDM Validation and Verification Standard, employed a rule-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

Description of project:

The project involves implementation municipal solid waste processing units in Temesi town, Gianyar Region, Bali Province, Indonesia. The waste is processed through composting method and it is implemented in the two phases:

1. 1st Phase: A 2,340 m² covered processing area with a capacity of maximum 30 tons waste per day- Commissioned on May 2008.
2. 2nd Phase: A 2,400 m² extension to 4,740 m² for a final capacity of up to 50 tons waste per day- Commissioned January 2010.

As a first activity of composting, the waste separation was done with hand tools. The coarse material is shredded for the fast decomposition. The composting is equipped with air supply with the help of centrifugal blowers to assure the aerobic condition. The waste is turned every two weeks to loosen the material and free air supply. After the initial de-composition, the raw compost is sieved to separate fine

compost and coarse materials. The fine compost is further aerated to get the finished compost while the coarse material is sent back to the incoming organic waste for further decomposition. The project activity maintains the oxygen level of 12% in the waste which is more than required of 6% to assure aerobic composting.

In the baseline condition, the waste would have dumped in the landfill which results in anaerobic decomposition and emits methane to atmosphere. Since, the project is aerobic decomposition of waste through composting, it avoids generation of methane. Hence, the project avoids GHG emission.

Methodology:

4KES follows a rule-based verification approach, wherein, as a first step, the contract review is undertaken as per latest version of CDM Accreditation Standard. Subsequently, after the contract is signed, the Gold Standard Verification work plan of the project activity is made available at Gold Standard registry in accordance with Gold Standard rules.

A desk review of the project documentation is undertaken, which is followed by an onsite audit and interviews by the members of verification team in accordance with the latest version of CDM AS. The verification protocol is filled by the verification team that is based on standard auditing practices and latest version of CDM VVS, to capture the assessment of applicable CDM & GS requirements viz., latest version of CDM Project Standard, applicable GS4GG guidelines, registered CDM PDD & GS-PDD, GS Passport applied methodology/ies and/or tools and recent decisions. The verification protocol provides transparent means to record the observations and compliances by the verification team members and the nonconformities (CARs/CLs), if any. The verification protocol is an internal document, and is available on request. After successful closure of findings (CARs/CLs), the draft verification report is prepared which went through Independent technical review as per 4KES internal procedures and the TR comments were given for any gaps in audit findings. After closure of the TR comments, final verification report is prepared then followed by final approval for the decision made. The approved verification report is given to PP which shall be submitted for request for issuance.

Following are the major milestones for the verification under consideration.

Verification contract	18/11/2021
Onsite Audit	19/04/2023 and 20/04/2023
Draft Verification Report	20/08/2023
Final Verification Report	29/08/2023

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader	IR	Ma Paa	Puratchikkanal	Central Office	x	x	x	x

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	R	Narendra Kumar	Central Office
2.	Approver	IR	R	Chandrakala	Central Office

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Wrong data collection/misinterpretation of household situation	Low	It's not complicated monitoring process. Appropriate trainings are conducted for the monitoring personnel.	By means of site visit check of actual situation to sample number of households.
2	Transfer of data from sampling survey sheet to ER sheet	Low	Possible human error during transfer of data to ER sheet	Thorough cross-check required on the transfer of data from survey sheets to the ER sheet
3	Error in ER calculations	High	The sample size was large, hence increasing the chances of error in ER calculation	The ER calculations were checked for accuracy.

C.2. Consideration of materiality in conducting the verification

The prescribed thresholds for materiality, as per §326 of CDM VVS for PA,

Prescribed range of ERs/annum	>500,000	300,000-500,000	300,000	SSC PAs	MSC PAs
Prescribed Threshold	0.5%	1.0%	2.0%	5.0%	10.0%

The identified/selected materiality threshold for the project activity under current monitoring period is 5% as project activity is small scale project activity.

	MR Version (Draft)	MR Version (Final)
Emission reductions/annum	7,797 tCO ₂ e	7,797 tCO ₂ e
Identified Threshold	5.0%	5.0%

The impact of errors observed during verification for each monitoring parameter on the emission reduction calculation is provided below:

Parameter	Verification approach	Error identified	Corrected	Extrapolated error for population size (Qty and %)	Within Threshold

f	Interview & Site observation	No error identified	NA	NA	Yes
GWP_{CH4}	Data check	No error identified	NA	NA	Yes
W_y = TWCOM_y	Complete data check	No error identified	NA	NA	Yes
p_{n,j,y}	Complete data check	No error identified	NA	NA	Yes
W_{total,y}	Complete data check	No error identified	NA	NA	Yes
W_{recycled,y}	Complete data check	No error identified	NA	NA	Yes
W_{landfill,y}	Complete data check	No error identified	NA	NA	Yes
F_{y,diesel}	Complete data check	No error identified	NA	NA	Yes
EL_y	Complete data check	No error identified	NA	NA	Yes
Q_{y,comp}	Complete data check	No error identified	NA	NA	Yes
S_{y,comp}	Complete data check	No error identified	NA	NA	Yes
CT_{y,comp}	Complete data check	No error identified	NA	NA	Yes
DAF_{comp}	Interview & Site observation	No error identified	NA	NA	Yes

No error on the values of the monitoring parameters is found. The change in the emission reduction between draft and final MR is due to the correction in the ER calculation. Please refer the CARs & CLs raised in the Appendix 4.

SECTION D. Means of verification

D.1. Desk/document review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by assessment team using verification protocols (checklists). The assessment team cross-checked the information provided in the MR and information from sources other than those used, if available, and also conducts independent background investigations. 4KES conducted a desk review, involving but not limited to,

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed is included in the section 'Appendix 3' of this report.

D.2. On-site inspection

Duration of on-site inspection:				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting, Office Inspection, Verification of monitoring records, interviews and database inspection	Gianyar	19/04/2023	Ma Paa Puratchikkanal
2	Closing meeting	Gianyar	19/04/2023	Ma Paa Puratchikkanal

Note : The project had not been visited by any VVB as per the mandated requirements for a continuous 2 year period. The deviation to accept the same has been granted by Gold Standard on 22/03/2023, hence the site visit was conducted later to this date.

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Nino	Sean	Temesi	19/04/2023 and 20/04/2023	<ul style="list-style-type: none"> - General aspects of the project - Changes since validation /previous verification - Remaining issues from validation/ previous verification - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel 	MP Kanal
2	Yatra	Agastya				
3		Anggarawati				
4		Ibu Kadek				
5		Ibu Ari				

					<ul style="list-style-type: none"> - Implementation of the monitoring plan - Monitoring data management - Data analysis - Issues in the MR - ER calculation 	
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D.4. Sampling approach

No Sampling Approach is used for the verification.

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

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	-	-	-
Compliance of the project implementation and operation with the registered PDD	-	3	1
Post-registration changes	-	-	-
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	-	3	-
Compliance of monitoring activities with the registered monitoring plan	-	3	-
Compliance with the calibration frequency requirements for measuring instruments	-	2	-
Assessment of data and calculation of emission reductions or net removals	-	4	-
Assessment of reported sustainable development co-benefits	-	2	-
Stakeholder Inputs & Legal Dispute	-	-	-
Others (please specify)	-	-	-
Total	-	17	1

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	The project is registered under GS4GG, and PP used GS monitoring report template, version 1.1. All the sections of the form were filled as per the GS4GG guidelines and gave all the relevant details.
Findings	No findings
Conclusion	Monitoring report was found to be completed and using the valid version i.e. version 1.1 of the GS MR, hence the monitoring report is complying with the monitoring report form.

E.2. Remaining forward action requests from validation and/or previous verifications

Means of verification	<p>This is 2nd verification of the project activity. Verification team checked the following reports for any pending issues from previous verification or GS4GG transition:</p> <ul style="list-style-type: none"> <input type="checkbox"/> GS Verification report of 1st Monitoring period <input type="checkbox"/> GS performance review report of 1st Monitoring period <input type="checkbox"/> GS4GG Transition review report
Findings	No finding
Conclusion	From the verification of the above-mentioned documents, it is found there is no forward action request (FAR) raised from 1 st verification or GS4GG transition.

E.3. Compliance of the project implementation and operation with the registered project design document

Means of verification	<p>The project involves implementation municipal solid waste processing units in Temesi town, Gianyar Region, Bali Province, Indonesia. The waste is processed through composting method and it is implemented in the two phases:</p> <ol style="list-style-type: none"> 1. 1st Phase: A 2,340 m² covered processing area with a capacity of maximum 30 tons waste per day- Commissioned on May 2008. 2. 2nd Phase: A 2,400 m² extension to 4,740 m² for a final capacity of up to 50 tons waste per day-Commissioned January 2010. <p>The verification team determined the conformity of the actual project activity and its operation with the validated project design document. Verification team has, by means of a desk review and an on-site visit, assessed that all physical features of the proposed CDM project activity proposed in the approved PDD/3/ are in place, and that the project participants have operated the CDM project activity as per the validated PDD/3/.</p> <p>The verification team has checked the information in the monitoring report and compared against the approved PDD/3/.</p> <p>During the onsite inspection, the verification team has checked the project locations, implementation, technology applied, project equipment, and monitoring system against the information in the approved PDD/3/. Interviews with operational personnel and households and random samplings have been carried out.</p>
Findings	CAR03 and CAR04 is raised and successfully closed.
Conclusion	Thus the verification team concludes that the project activity was implemented and operated as per approved PDD. The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned and implemented as per the approved PDD/3/ and that all physical features of the project are in place.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents¹

No temporary deviation from the registered monitoring plan is sought in this verification.

E.4.2. Corrections

No correction is sought in this verification.

E.4.3. Changes to the start date of the crediting period

There are no changes to the start date of the crediting period in this monitoring.

E.4.4. Inclusion of a monitoring plan

Monitoring plan was already included in the approved PDD. Hence, not applicable.

E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

No permanent changes or deviation in the registered monitoring plan is sought

E.4.6. Changes to the project design

No change in project design is sought.

E.4.7. Changes specific to afforestation and reforestation project activities

Not applicable

E.5. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	The verification team checked compliance of project monitoring plan with the applied methodology (AMS III.F, version 12)/6/ and including applicable tools.
Findings	CAR07 is raised and closed successfully.
Conclusion	All parameters stated in the monitoring plan and the applied methodology has been fulfilled in the current monitoring report. All baseline emission parameters has been verified and found satisfactory. The discussion regarding each parameter has been elaborated in the further sections of this report. The monitoring plan as mentioned in the registered PDD is in accordance with the applied methodology. In the opinion of the verification team the monitoring report complies with the requirement of the registered PDD/3/ and applied methodology (AMS III.F)/6/ in the context of the project activity. Thus, it conforms to the requirement VVS for PA

¹ Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	The verification team has checked the ex-ante parameters and data stated inSection D.1 of MR and compared with section B.6.2 of the registered PDD whether all parameters fixed ex-ante for the crediting period have been applied correctly.														
	Ex-ante Parameter	Value	Consistent with the PDD/3/ & the source mentioned in it												
	Φ	0.85	Yes												
	OX	0.1	Yes												
	F	0.5	Yes												
	DOC _f	0.5	Yes												
	MCF	0.8	Yes												
	DOC _j	<table><tr><th>Waste type j</th><th>% DOC wet waste</th></tr><tr><td>Wood and wood products</td><td>43</td></tr><tr><td>Pulp, paper and cardboard (other than sludge)</td><td>40</td></tr><tr><td>Food, food waste, beverages and tobacco (other than sludge)</td><td>15</td></tr><tr><td>Textiles</td><td>24</td></tr><tr><td>Garden, yard and park waste</td><td>20</td></tr></table>	Waste type j	% DOC wet waste	Wood and wood products	43	Pulp, paper and cardboard (other than sludge)	40	Food, food waste, beverages and tobacco (other than sludge)	15	Textiles	24	Garden, yard and park waste	20	Yes
	Waste type j	% DOC wet waste													
	Wood and wood products	43													
	Pulp, paper and cardboard (other than sludge)	40													
	Food, food waste, beverages and tobacco (other than sludge)	15													
	Textiles	24													
	Garden, yard and park waste	20													
	K _i														
	k _j	<table><tr><th>Waste type j</th><th>K_i</th></tr><tr><td>Pulp. Paper, cardboard, textiles</td><td>0.07</td></tr><tr><td>Wood, wood products, straw</td><td>0.035</td></tr><tr><td>Garden and park waste</td><td>0.17</td></tr><tr><td>Food, food waste, beverages, tobacco</td><td>0.4</td></tr></table>	Waste type j	K _i	Pulp. Paper, cardboard, textiles	0.07	Wood, wood products, straw	0.035	Garden and park waste	0.17	Food, food waste, beverages, tobacco	0.4	Yes		
	Waste type j	K _i													
	Pulp. Paper, cardboard, textiles	0.07													
	Wood, wood products, straw	0.035													
	Garden and park waste	0.17													
	Food, food waste, beverages, tobacco	0.4													
GWP _{CH4}	28 t CO ₂ e/t CH ₄	Yes													
GWP _{N₂O}	265 t CO ₂ e/t N ₂ O	Yes													
EF _{EL,j,y}	0.88 tCO ₂ /MWh	Yes													
D _{diesel}	0.832 kg/l	Yes													
EF _{CH₄}	0.002 t CH ₄ / t	Yes													
EF _{N₂O}	0.0002 t N ₂ O / t	Yes													
TWCOM _{BAU}	595 t per year	Yes													
Findings	CAR 05,06,09 is raised and closed successfully.														
Conclusion	The values of ex ante fixed parameters have been verified from the registered PDD/3/ .Same has been crosschecked with the source mentioned in the PDD and found to be consistent. The verification team confirms that the values used/applied are correct and justified. Also, the ex-ante values have been correctly applied in the calculation of emission reductions.														

E.6.2. Data and parameters monitored

<p>Means of verification</p>	<p>The verification team has determined whether the registered monitoring plan has been properly implemented and followed by the PP that the monitoring has been carried out in accordance with the registered monitoring plan; and determined whether all parameters including project emission parameters, baseline emission parameters and leakage parameters used for emission reduction calculation stated in the registered monitoring plan are monitored or used appropriately as per the registered PDD.</p> <p>During the verification all monitoring parameters listed in Section D.2 of MR were compared with section B.7.1 of the registered PDD have been verified with regard to the:</p> <ul style="list-style-type: none"> (i) appropriateness of the applied measurement / determination method, (ii) the correctness of the values applied for ER calculation, (iii) the accuracy, and applied QA/QC measures. <p>The monitored values are assessed as follows:</p> <p>F_y (Fraction of methane captured at the SWDS and flared, combusted or used in another manner): As mentioned in the monitoring report, there is no land fill gas capturing mechanism installed in the landfill site. This is confirmed through site visit and by verifying the letter from landfill operator (ie Dinas Debersihan Dan Pertamanan)/22/ which confirms no landfill gas capturing equipment installed in the land fill site. Hence, the value considered for this parameter (ie, 0) is correct.</p> <p>W_x = Q_y = TWCO_y (Total amount of organic waste composted in year x/y): The weight of organic waste composted is measured through weighing scales continuously. This is one of the two methods of measuring this parameter mentioned in the PDD Section B.7.2/3/ and more accurate than second method in PDD. The weigh scales used are calibrated annually. The readings are consolidated monthly & yearly and maintained in PP's office. The monthly data provided in the excel sheet/15/ are crosschecked with the monthly log records/21/. No error is found. The weigh bridges have been calibrated on once in a year hence are found to be ok. This is verified and found to be acceptable. Hence, the value considered for this parameter is correct.</p> <p>p_{n,j,x} (Weight fraction of the waste type j in the sample n collected during the year x): This parameter is monitored on sample basis. Every quarter three days are considered for sampling. Each selected day, a 100 kg of weight is taken as sample for the separation. Considering the required confidence level of 95% and precision level of 10% (as mentioned in PDD), the sample size is calculated to be 80.5kg. For any higher population also, the maximum sample size will be within 90 kg only. Since PP has considered sample size of 100, the sample size considered is found to be appropriate and conservative. From the 100 kg of sampled waste, every category waste is separated and each type of the separated wastes is measured through calibrated weighing scales and the same is recorded. Yearly average is considered for the calculation. The plant records/21/ are verified and found that the data considered for calculation/17/ is consistent with the plant records. No error is found. As mentioned above the weighbridges are no calibrated in one year frequency. However no error is applied for the calibration non-validity period as this does not affect the percentage value. This is found to be acceptable. The excel sheet also verified and found that the average calculation is correct.</p> <p>Z_x (Number of samples collected during the year x): number of samples collected during the year is 12 for all vintages in the ratio of minimum three samples</p>
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	<p>for every three months which is given by the PP. Where the sample size and sampling technique must ensure the sample is representative where it is monitored annually using PP's records. Hence the given parameter is verified and value taken is correct.</p> <p>EC_{PJ,grid,y} (Quantity of electricity consumed from the grid in year y) : The quantity of electricity consumed from the grid in year is measured from the government electrical metres where it is continuously monitored in every months and the energy metres are calibrated once in every 5 years from calibration certificate of energy metre /20/ the source of data is from the plant records.therefore the given value of 11.697 MWh is correct.</p> <p>TDL_{j,y} (Average technical transmission and distribution losses for providing electricity to source j, in year y): Average technical transmission and distribution losses for providing electricity to source in year is 20% applied Data provided by grid operator/ government (or) default value provided in the tool 'Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 3 . First preference will be given to the data provided by grid operator/government. If the data is not available, then the default value as per the tool, 20% will be used. Therefore, the value taken is correct.</p> <p>FC_{diesel,y} (Quantity of diesel combusted during the year y): The quantity of diesel combusted during the year is 9728.8 litres which is measured from the plant records and also the Purchase records/21/ and invoices are used to estimate diesel consumption in year and it is monitored yearly .hence the value of diesel combusted is correct.</p> <p>NCV_{diesel,y} (Net calorific value of diesel): The Net calorific value of diesel which is taken from the Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories/7/ that is 43.3 TJ/Gg where the IPCC default value at the upper limit of the uncertainty at a 95% confidence interval has been considered therefore the value taken is correct.</p> <p>EF_{diesel,y} (Emission factor of diesel):The emission factor of diesel is measured or taken from the Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories/7/ that is 74.8 tonnes/TJ where the IPCC default value at the upper limit of the uncertainty at a 95% confidence interval has been considered therefore the value taken is correct.</p>
Findings	CAR-12 & CAR13are raised and closed satisfactorily
Conclusion	<p>The team confirm that the monitoring has been carried out in accordance with the registered PDD/3/.</p> <p>The monitoring system is in compliance with the information flow for the parameters as mentioned in monitoring plan in registered PDD/3/. All the parameters are monitored as per the frequency mentioned in the registered PDD. The monitored data for the parameters has been verified by checking the procedure for information flow and found to be complete and consistent.</p>

E.6.2.1. Implementation of sampling plan

Means of verification	The verification team checked whether the PPs have applied a sampling approach to determine the monitored values. For the parameters determined through sampling, the verification team checked the sampling approach followed for each monitoring parameters to confirm the sampling plan mentioned in the registered PDD.			
	PARAMETER	SAMPLE SIZE REQUIRED AS PER PDD/3/	ACTUAL SAMPLE SIZE CONSIDERED FOR SURVEY/1/	IS SAMPLE SIZE IS SUFFICIENT?
	p _{n,j,x}	80.5kg (considering 95/10 confidence & precision level) (three times of sampling per quarter)	100 kg (three times of sampling in per quarter)	Yes
	The verification team also checked the precision level from the survey data and confirmed that precision level achieved for all parameter is within the limit of 10%. Hence, the sample size considered for the parameter is found to be OK.			
Findings	CAR 15 and CAR 11 is raised and closed successfully.			
Conclusion	Verification team concludes the following: <ul style="list-style-type: none"> The sample size considered for the parameter (which is monitored through sampling basis) is found to be appropriate PP's sample population was selected in all the mandals proportionally based on the number units installed in the respective mandals The sampling plan is implemented seems to be appropriate. Through acceptance sampling, the verification team confirmed that all the data collected by PP through sample survey are correct. 			

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	The verification team determined whether the calibration of the measuring equipment that has an impact on the claimed emission reductions is conducted by the PP at a frequency specified in the registered monitoring plan. The calibration records were verified to check the frequency of calibration of the measuring instruments. The calibration details of the monitoring equipment are verified as below:			
	Measuring Equipment & Sr. Number	Calibration dates/20/	Calibration validity/20/3/	Expiry of Calibration during this Monitoring Period.
	Analogue balance-B 1401755	25-Nov-2021	25-nov-2022	NO
	Analogue balance-B1801334	25-Nov-2021	25-nov-2022	NO
	Analogue balance-21061	25-Nov-2021	25-nov-2022	NO
	Digital balance-C0903150828	25-Nov-2021	25-nov-2022	NO

	Digital balance-227192	25-Nov-2021	25-nov-2022	NO
	kWh Meter-32900906291	25-Nov-2021	25-nov-2022	NO
	<p>*Meter calibration date valid for 5 years</p> <p>Verification team checked all the calibration reports/20/ and found that the results of the all the calibrations are within satisfactory level. Also, it is found that the nextcalibrations are done before the expiry date of the previous calibrations</p>			
Findings	CAR10 is raised and closed successfully.			
Conclusion	Corresponding to the VVS for PA V02 /12/. Verification team has confirms that periodic calibration was carried out for all the required monitoring equipment"s that have an impact on the claimed emission reductions. The frequency of calibration is annual except for energy meters (which will be calibrated once in 5 year as per calibration validity mentioned in the calibration certificate/20/) and applied methodology/6/.			

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	<p>The verification team has checked whether calculations of baseline GHG emissions calculation have been carried out in accordance with the formulae and methods described in the registered monitoring plan.</p> <p>In detail the following has been verified:</p> <p>Transparency: It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.</p> <p>Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet.</p> <p>Correctness: It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology.</p> <p>Completeness: It has been checked whether all calculations are complete and without omissions</p> <p>PP has submitted the calculation in the excel sheet/2/. The baseline calculation in the excel sheet is checked whether the calculation is in accordance with the formula given in the approved PDD/3/ and the selected methodologies/6/.</p>
Findings	CAR015 and CAR09 is raised and closed.
Conclusion	<p>The verification team confirms the following:</p> <ul style="list-style-type: none"> • The calculations of baseline GHG emissions have been carried out in accordance with the equations and methods described in the registered monitoring plan and applied methodology. • The emission factor applied is an ex-ante value valid for the fixed crediting period. • Any assumptions used in emission or removal calculations have been justified. • Appropriate emission factor and other reference values have been correctly applied. It can be confirmed that the emission reduction calculation is correct.

	<ul style="list-style-type: none"> The ER calculation sheet/2/ provided is clear, transparent and the calculations provided in the sheet are reproducible. <p>Hence, the emission reduction reported in the monitoring report/1/ for the monitoring period (ie, 7,797 tCO₂e with leakage adjustment) is verified to be correct</p>
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E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	<p>The verification team has checked whether calculations of project GHG emissions calculation have been carried out in accordance with the formulae and methods described in the registered monitoring plan</p> <p>In detail the following has been verified:</p> <p>Transparency: It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.</p> <p>Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet.</p> <p>Correctness: It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology.</p> <p>Completeness: It has been checked whether all calculations are complete and without omissions</p> <p>The project emissions are calculated for the following components –</p> <ol style="list-style-type: none"> Electrical power emissions by facility Diesel emissions by facility from equipment Diesel emissions by facility trucks Diesel emissions by customers transports <p>PP has submitted the calculation in the excel sheet/2/. The project emission calculation in the excel sheet is checked whether the calculation is in accordance with the formula given in the approved PDD/3/ and the selected methodologies/6/.</p>
Findings	CAR 12 is raised and closed successfully.
Conclusion	<p>The verification team confirms the following:</p> <ul style="list-style-type: none"> The calculations of project GHG emissions have been carried out in accordance with the equations and methods described in the registered monitoring plan and applied methodology. The emission factor applied is an ex-ante value valid for the fixed crediting period. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factor and other reference values have been correctly applied. It can be confirmed that the project emission calculation is overall correct. The ER calculation sheet provided is clear, transparent and the calculations provided in the sheet are reproducible. <p>Hence, the project emission reported in the monitoring report for the monitoring period (i.e. 7,797 tCO₂e) is verified to be correct</p>

E.8.3. Calculation of leakage GHG emissions

Means of verification	During the verification it has been checked whether leakage emissions have to be considered and in cases where leakage emissions have to be calculated, the respective calculation of leakage GHG emissions has been checked. As per PDD, no leakage emission is considered in the project.
Findings	No finding
Conclusion	No leakage emission is involved in this project.

E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	MR demonstrates the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodologies as follows: $ER_y = (BE_y - PE_y - LE_y) * (1 - r) = (8,897 - 775 - 0) * (0.96) = 7,797 \text{ tCO}_2\text{e}$ The ER calculation sheet and monitoring report is verified to check the calculation.
Findings	CAR17 and CAR01 is raised and closed successfully.
Conclusion	The verification team confirms the following: <ul style="list-style-type: none"> The emission reduction value reported (ie., 7,797 tCO₂e) is verified to be correct. The summary table in the MR has been filled correctly and the values are in line with the related emissions reduction spreadsheet. Since the monitoring period starts after 31/12/2020, the complete verified emission reductions are correctly reported under the respective column in the MR.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The verification team has checked whether the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD/3/. Section E.4 of the MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD	
	Emission reduction estimated as per the approved PDD/3/	Actual emission reduction achieved as per Monitoring report/1/
	9,198 t CO ₂ e	7,797 t CO ₂ e
	The actual emission reduction achieved during the monitoring period is less than the estimation in the PDD.	
Findings	No findings	
Conclusion	The estimated emission reduction as per PDD and the actual emission reduction achieved for the monitoring period are correctly reported in the section E.5 of MR. The actual achieved emission reduction is less than the PDD estimation. Hence no justification is required.	

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	No finding
Conclusion	The actual achieved emission reduction is less than the PDD estimation. Hence no justification is required.

E.9. Assessment of reported sustainable development co-benefits

Relevant SDG	SDG 1: No Poverty
Parameter	Number of new jobs created due to project implementation. Money spent as salary.
Source	salary vouchers and other financial statements.
Monitored Value	61
Means of verification	A detailed record of the employees working in the plant is kept separately with all contact details and photographs of the employees.. It is also cross-verified through interview with end user during the onsite audit.
Findings	No findings
Conclusion	The parameter is monitored appropriately, in accordance with the registered monitoring plan. Details of the salary paid to the employees can be verified with vouchers and bank documents.. All the monitored parameter values reported in the MR are found to be correct.

Relevant SDG	SDG 3: Good Health and Well Being
Parameter description	Continued improved indoor air condition and reduced respiratory problems especially for women and children.
Source	Based on experience by the communities for reduction in health problems through sample survey.
Monitored Value	100% reduction in indoor air pollution.
Means of verification	The improvement in indoor air condition compared to baseline based on community perspective and Reduction in incidence of health problems i.e. eye irritation, respiratory problems, burns and wounds etc., due to better indoor air quality have been monitored through annual sample survey/15/. The sample survey sheets are verified and found that the data reported in MR is correct. It is also cross-verified through interview with end user during the onsite audit.
Findings	CAR08 is raised and closed successfully.

Conclusion	The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct.
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Relevant SDG	SDG 6: Clean Water and Sanitation
Parameter description	Improvement in the clean water availability and sanitation facilities.
Source	Survey results and Lab certificates
Monitored Value	100% people confirm the improvement in the clean water availability and sanitation facilities in the monitoring sample survey
Means of verification	Annually a sample survey will be conducted to see how the status of clean water availability and sanitation facilities are improved in the region. Water samples will be collected half yearly once and tested in government certified lab and results are compared with the previous readings.
Findings	CAR-04 is raised and closed successfully
Conclusion	The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values in the MR are found to be correct.

Relevant SDG	SDG 11: Sustainable Cities and Communities
Parameter description	Cities with good waste management practices
Monitored Value	17,500 tonne of waste processed in the plant per annum as a measure is to be increased by documenting how far reaching our communications and our general program development goes
Source	Records of households reached and number of meetings held
Means of verification	Applying Village profiles and regional population statistics
Findings	No finding
Conclusion	The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct.

E.10. Stakeholder Inputs & Legal Dispute

Means of verification	This is the 2 th Verification period, no comments received during commenting period
Findings	Not applicable
Conclusion	Not applicable

SECTION F. Internal quality control

The draft verification report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm the internal procedures established by 4KES are duly followed and the verification report/opinion is reached in an objective manner and complies with the applicable Gold Standard & CDM requirements.

The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team. The independent technical reviewer(s) may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before submit final report to Client/Gold Standard. The final approval decision is taken by the Head of the DOE/Director.

The final decision is authorized by the Director, 4KES, once the report is finalized by the Head of the DOE/DOE Manager.

SECTION G. Verification opinion

The verification team confirms that the evidence is of sufficient quantity, appropriate quality and reliable. The reported values, notation, units and sources in the monitoring report for all the monitoring parameters have been cross checked with the emission reduction sheet and monitoring report. During the course of verification and onsite audit, the data submitted by PP was cross verified with the values mentioned in the emission reduction sheet/2/ and monitoring report/1/. The procedure for data monitoring, recording, transfer and compilation was also verified and found in compliance with the monitoring plan as mentioned in the approved revised PDD/3/.

Evidences (Documents/interview) referred for verification of individual monitoring parameter and fixed parameters are defined in section E.6 above. It is confirmed by the assessment team that the reported emission reductions have been conservatively calculated. A list of referred documents for verification is also included in Appendix 3 of this report.

Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 7,797 tCO₂e emission reductions during period 01/01/2021 to 31/12/2021.

SECTION H. Certification statement

4K Earth Science Private Limited has been contracted by 'Yayasan Pemilahan Sampah Temesi' to undertake independent verification and certification for the greenhouse gas (GHG) emission reductions reported and the contribution to sustainable development indicators from the GS Project activity "Gianyar Waste Recovery Project" and GS Ref# GS7561 for the monitoring period 01/01/2021 to 31/12/2021 (including both dates) in the GS Monitoring Report Version 02 dated 18/04/2022.

The verification is based on the revised CDM PDD, GS PDD and the GS monitoring report for this project. Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakech accord, as well as those defined by the Gold Standard Board.

The management of the 'Yayasan Pemilahan Sampah Temesi' is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions & monitoring of SDG parameters on the basis set out within the project Final GS Monitoring Report Version 02 dated 18/04/2022. The calculation and determination of GHG emission reductions from the project is the responsibility of the management of the 'Yayasan Pemilahan Sampah Temesi'. The development and maintenance of records and reporting procedures are in accordance with the GS Monitoring Report Version 02 dated 18/04/2022

In our opinion the GHG emissions reductions reported for the project activity are fairly stated in the GS Monitoring Report (final) Version 02, dated 18/04/2022. 4KES based on outcome of verification activities, certifies in writing that, during the monitoring period 01/01/2021 to 31/12/2021 (including both days), the registered CDM GS PA “Yayasan Pemilahan Sampah Temesi” in the registered GS CDM PA achieved the verified amount of 7,797 tCO₂e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

The Verified emission reduction during the monitoring period 01/01/2021 to 31/12/2021 is stated below:

Vintage	Duration	Gold Standard Verified emission reductions (tCO₂e)
Total	01/01/2021 to 31/12/2021	7,797

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CERs	Certified Emission Reductions
CH ₄	Methane
CL	Clarification Request
CO ₂ e	Carbon dioxide equivalent
COP	Conference of Parties
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
ERPA	Emission Reduction Purchase Agreement
Ers	Emission Reductions
FAR	Forward Action Request
GHGs	Greenhouse Gas(es)
GWP	Global Warming Potential
ISO	International Organization of Standardization
IPCC	Intergovernmental Panel on Climate Change
4KES	4K Earth Science Pvt. Ltd.
KP	Kyoto Protocol
LE	Leakage Emissions
MR	Monitoring Report
MP	Monitoring Plan
NGO	Non-Governmental Organization
OP	Operating Procedure
PE	Project Emissions
PDD	Project Design Document
PS	Project Standard
PCP	Project Cycle Procedure
SWDS	Solid Waste Disposal Site
QA/QC	Quality Assurance/Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation & Verification Standard

Appendix 2. Competence of team members and technical reviewers

<u>Certificate of Competence</u>						
Name	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ma Paa Puratchikkanal				
Qualification Procedure	Fulfil the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.					
Appointed to work as:						
	CDM Validator/Verifier	Team Leader	Team Member	Technical Expert	Technical Reviewer	Financial Expert
Appointed	Yes	Yes	Yes	Yes	Yes	Yes
Appointed Date	15-07-2023					
Authorized to work as Technical Expert for:						
Authorized Technical Area	Sectoral Scope	TA Code		Technical Area within the scope		
	Energy industries (renewable - / non-renewable sources)	1.1		Thermal energy generation		
	Energy industries (renewable - / non-renewable sources)	1.2		Renewables		
	Energy demand	3.1		Energy demand		
	Construction	6.1		Construction		
	Waste handling and disposal	13.1		Solid waste and wastewater		
	Waste handling and disposal	13.2		Manure		
	Agriculture	15.1		Agriculture		
Authorized to work as Local Expert for:						
Country/Countries	India, Sri Lanka					
Compliance check by: Swati S Acharya						

<u>Certificate of Competence</u>						
Name	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Narendra Kumar. R				
Qualification Procedure	Fulfil the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.					
Appointed to work as:						
	CDM Validator/Verifier	Team Leader	Team Member	Technical Expert	Technical Reviewer	Financial Expert
Appointed	Yes	Yes	Yes	Yes	Yes	Yes
Appointed Date	15-07-2023					
Authorized to work as Technical Expert for:						
Authorized Technical Area	Sectoral Scope	TA Code		Technical Area within the scope		
	Energy industries (renewable - / non-renewable sources)	1.1		Thermal energy generation		

	Energy industries (renewable - / non-renewable sources)	1.2	Renewables
	Energy demand	3.1	Energy demand
	Waste handling and disposal	13.1	Solid waste and wastewater
	Waste handling and disposal	13.2	Manure
Authorized to work as Local Expert for:			
Country/Countries	India		
Compliance check by: Swati S Acharya			

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	Yayasan	Monitoring Report	Version 01, dated 03/03/2022 Version 02, dated 18/04/2022	Yayasan
2	Yayasan	Calculation of BE and PE with interlinked tables 27-38 for 2018 (ER Calculation Sheet)	Version 02	Yayasan
3	Yayasan	Registered PDD (PRC Approved)	Version 03	Publically available
4	SGS	Validation Report (submitted for Initial registration)	Dated 27/08/2020	Publically available
5				
6	UNFCCC	AMS-III.F – Avoidance of methane production from decay of biomass through composting	Version 12.0	Publically available
7	IPCC	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book	1996 Inventories 2006 Inventories	Publically available
8	UNFCCC	Kyoto Protocol (1997)	Web Link	Publically available
9	UNFCCC	Monitoring Report Form (GS-MRFORM)	Version 1.1	Publically available
10	UNFCCC	CDM Project Standard for project activities	Version 2.0	Publically available
11	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities	Version 05	Publically available
	UNFCCC	Guidelines for sampling and surveys for CDM project activities and programme of activities	Version 04	Publically available
12	UNFCCC	CDM Validation and Verification Standard for project activities	Version 2.0	Publically available
15	Yayasan	Annual sample survey processed in the year 2021	Version 01	Yayasan

16	Yayasan	Details of compost sales and transport in the year 2021	Version 01	Yayasan
	Yayasan	Details of compost sales and transport in the year 2021	Version 01	Yayasan
17	Yayasan	Details of waste percentage of the year 2021	Version 01	Yayasan
	Yayasan	Details of waste percentage of the year 2021.	Version 01	Yayasan
18	Yayasan	Details of total energy consumption for the year 2021	Version 01	Yayasan
	Yayasan	Details of total energy consumption for the year 2021	Version 02	Yayasan
19	Yayasan	Calculation of baseline emission and project emission for the year 2021	Version 01	Yayasan
20	Governmental UPT Metrologi, Bali	Calibration certificates of weighing scales	Dated 23/11/2020& 27/11/2021	Yayasan
		Calibration certificate of Energy Meter	dated 29/11/2020 & 3/11/2021	Yayasan
21	Yayasan	Plant log records of waste processed Plant log records of waste percentage Plant log records of compost sold & transported Purchase records of the Diesel	Year 2021	Yayasan
22	Dinas Debersihan Dan Pertamanan	Letter confirming there is no methane capture in the landfill site	Year 2021	Yayasan
23	Pt. PLN (PERSERO)	Energy consumption details provided by the governmental electric company PLN for the year 2018.	31/12/2021	Yayasan
24	Yayasan	Sampling Plan for type of waste	31/12/2021	Yayasan
25	UNFCCC	Standard for application of the global warming potentials to clean development mechanism project activities and programmes of activities for the second commitment period of the Kyoto protocol	EB 69, Annex 3	Publically available
26	Yayasan	Operating Procedures for quality system	-	Yayasan

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

Table 1. Remaining FAR from validation and/or previous verifications

FAR ID	04	Section no.		Date:	
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Description of CL	
Project participant response	Date
Documentation provided by project participant	
DOE assessment	Date:

Table 2. CAR from this Verification

CAR ID	01	Section no.	Table 1 of MR.	Date: 10/04/2022
Description of CAR				
<p><i>In Table I, page no 2 of the MR,</i></p> <ul style="list-style-type: none"> <i>In the Units /Products column in table I of the MR provide the units of SDG impact amount achieved during the monitoring period</i> <i>For SDG 3 & 6 the values achieved from the monitoring survey to be presented.</i> <i>Inconsistency in the values of other sections has to be corrected</i> 				
Project participant response				Date: 13/04/2022
<p><i>Amount Achieved and Units/ Products should be NA ; NA as we are not actively monitoring the “direct” impact.</i></p>				
Documentation provided by project participant				
MR				
DOE assessment				Date: 27/07/2023
The correction made is verified. Hence CAR1 is closed				

CAR ID	02	Section no.	E.6.2	Date: 10/04/2022
Description of CAR				
<p><i>Written confirmation from landfill site operator for no LFG capture and flaring installations to be submitted for review.</i></p>				
Project participant response				Date: 13/04/2022
<p><i>Letter has been attached in email: Surat Pernyataan from 14. January 2022</i></p>				
Documentation provided by project participant				
Surat Pernyataan from 14. January 2022				
DOE assessment				Date: 29/08/2023
The submitted document is verified. Hence,CAR02 is closed.				

CAR ID	03	Section no.	E.6.1	Date: 10/04/2022
Description of CAR				
<p><i>PP has to check the GS rule update Version 1.1 “Applicability of global warming potential for gold standard for the global goals projects “for this current monitoring period</i></p>				
Project participant response				Date: : 13/04/2022

I have read the rule update published under.

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

“The Currently, Gold Standard for the Global Goals (GS4GG) requires all projects to calculate GHG reductions and removals based on the 100-year GWPs in the IPCC Fourth Assessment Report, Working Group 1, Chapter 2, Table 2.14. This document outlines Gold Standard’s Technical Advisory Committee’s (TAC) decision to update GWP values following IPCC Fifth Assessment report (AR5)”

revised all calculations of the linked spread shee with the result of a slightly higher Emission Reduction for 2021 because of GWP 28 instead 25. The value corrected throughout the MR to new 7795

Documentation provided by project participant

New linked spread sheet and new MR version

DOE assessment

Date: 27/07/2023

The submitted document is verified. Hence,CAR03 is closed.

CAR ID	04	Section no.	E.6.2	Date:	10/04/2022
Description of CAR					
The reason for zero value considered in “Details of total organic waste processed 2021 for Annex 1” in some days of the year need be clarified for example in May 2021 totally 7 days waste was not processed, also April and May 2021 the processed quantity is less compared to other months in the monitoring period					
Project participant response					Date: 13/04/2022
May was after Muslim holidays and Covid 19 hit us hard. Ramadan, Idul Fitri.					
We lost our workforce and many never returned from their holidays home to Java. Covid 19 restricted travel and we had to work at very low capacity and with very little workers.					
Documentation provided by project participant					
DOE assessment					Date: 27/07/2023
The given explanation or reason is acceptable. Hence,CAR 04 is closed					

CAR ID	05	Section no.	E.7	Date:	10/04/2022
Description of CAR					
Weighing bridge not calibrated with in the calibration due for Sr. No: B 1401755 & B 1801334. The reason explained in the MR for delayed calibration to be submitted for review and how the delayed calibration accounted in the baseline emissions Correction requested					
Project participant response					Date: 13/04/2022
Letter has been requested from landfill operator					
Documentation provided by project participant					
Letter has been submitted					
DOE assessment					Date: 27/07/2023
The submitted document is verified. Hence,CAR05 is closed.					

CAR ID	06	Section no.	E.6.2	Date:	13/04/2022
Description of CAR					
For the month of April and November 2021 Electricity consumption of the facility is zero. Clarification requested in this context. Also, monthly records of electricity consumption to be submitted for review.					

Project participant response	Date: 15/04/2021
<i>The project buys electricity with vouchers of 1010.2 kWh each. In April and May the vouchers from the prior month were sufficient to cover these months. A detailed list of electricity consumption has already been supplied in accordance with the note in Annex 5</i>	
Documentation provided by project participant	
<i>none</i>	
DOE assessment	Date: 27/03/2023
The given explanation or reason is acceptable. Hence,CAR 06 is closed	

CAR ID	07	Section no.	E.9	Date: 13/04/2022
Description of CAR				
Monitoring Survey for the SDG impacts 3,6 to be submitted for review and how the sample size is determined as per guidelines and it shall be part of the MR				
Project participant response				Date: 13/04/2022
SDG monitoring is voluntary only and not part of the PDD or any annual sampling plans or monitoring survey's/				
Documentation provided by project participant				
DOE assessment				Date: 27/03/2023
The given explanation or reason is acceptable. Hence,CAR 07 is closed				

CAR ID	08	Section no.	E.9	Date: 10/04/2022
Description of CAR				
For SDG 6, Water samples test report applicable for this monitoring period to be submitted for review and comparison with the previous verifications reports to be explained in the MR or survey sheet.				
Project participant response				Date: 13/04/2022
SDG monitoring is voluntary only and not part of the PDD or any annual sampling plans or monitoring survey's/				
Documentation provided by project participant				
DOE assessment				Date: 27/03/2023
The given explanation or reason is acceptable. Hence,CAR 08 is closed				

CAR ID	09	Section no.	E.9	Date: 10/04/2022
Description of CAR				
Proof for the total waste processed in the plant during the monitoring period to be submitted for review also value applied in the MR is not consistent with other sections of MR.				
Project participant response				Date: 13/04/2022
For SDG 13, the records (roughly 1000) available down to weighing are available at the project site. SDG monitoring is voluntary only and not part of the PDD or any annual sampling plans or monitoring survey's/				
Documentation provided by project participant				
DOE assessment				Date: 27/07/2023

The given explanation or reason is acceptable. Hence,CAR 09 is closed

CAR ID	10	Section no.	D.3 of the MR	Date: 10/04/2022
Description of CAR				
<i>In Section D.3 the Emission reduction value obtained in the last monitoring period is not matching with previous monitoring period. Correction requested</i>				
Project participant response				Date: 13/04/2022
<i>The 16'026 noted in the 2021 MR are correct. Note that the last MR comprised 3 vintage years 04/11/2018 to 31/12/2020 SDG monitoring is voluntary only and not part of the PDD or any annual sampling plans or monitoring survey's/</i>				
Documentation provided by project participant				
DOE assessment				Date: 27/07/2023
The given explanation or reason is acceptable. Hence,CAR 10 is closed				

CAR ID	11	Section no.	E.6.3	Date: 10/04/2022
Description of CAR				
<i>The determination of sample size and calculation of precision level to be part of the emission reduction calculation sheet i.e., Annex 2- Summary of waste composition. It will give the values clearly and if reviewer wants to change the values to check any other possible scenario. Correction requested</i>				
Project participant response				Date: 15/04/2022
<i>In Annex 2 a reference to MR Chapter D.4.3.1..has been added together with the formula and the advice to refer to D.4.3.1. for details. It is more practical to do so. Anyway as explained in D.4.3.1., even with a worst caste response distribution of 50% the precision value would still below the required 10% as stated in D.4.3.1.</i>				
Documentation provided by project participant				
New Annex 2				
DOE assessment				Date: 27/07/2023
The submitted document is verified. Hence,CAR12 is closed.				

CAR ID	12	Section no.	MR & ER Sheets	Date: 10/04/2022
Description of CAR				
<i>Proper round up and round down is not done to the parameters reported in the document. Certain places it reported in 3 decimal and in certain places reported in 2 decimal places. The values shall be consistent with MR and submitted Annex & Excel Sheets. Correction requested</i>				
Project participant response				Date: 15/04/2021
<i>We noted that some values have not been rounded properly. This is corrected in the new linked BE, PE and ER tables and consequently also in the MR.</i> <i>In physics decimal s don't have to be consistent but significant. We adhere to this principle, except when earlier verifiers requested differently. That might result in calculations yielding results with more decimal digits than later reported.</i>				
Documentation provided by project participant				
DOE assessment				Date: 27/07/2023
The correction made is verified. Hence CAR12 is closed				

CAR ID	13	Section no.	E.8.1	Date: 10/04/2022
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Description of CAR	
<i>In Details of 2021 baseline emissions Annex 3, Total emissions mentioned for other monitoring period 2018 ,2019 to be removed to avoid the misleading the calculations and provide the details only applicable to this monitoring period.</i>	
Project participant response	Date: 15/04/2021
<i>No values were found for 2018, 2019 in Annex3. Nothing is misleading in our opinion</i>	
Documentation provided by project participant	
DOE assessment	Date: 27/07/2023
The response is verified and seems to be ok. Hence CAR 13 is closed.	

CAR ID	14	Section no.	E.8.4	Date: 10/04/2022
Description of CAR				
<i>In section E.4 of the MR, Provide the net benefits for other SDG involved in the PA by comparing baseline scenario and Project scenario. Correction requested</i>				
Project participant response				Date: 01/06/2023
Documentation provided by project participant				
<i>SDG is formulated and provided and it is ok.</i>				
DOE assessment				Date: DD/MM/YYYY
The correction made is verified. Hence CAR14 is closed				

CAR ID	15	Section no.	E.8.5	Date: 10/04/2022
Description of CAR				
<i>In Emission reduction calculations round down the baseline emissions & Roundup the Project emission values to zero. Inconsistency of values found in MR/ER calculation sheets. Correction requested</i>				
Project participant response				Date: 15/04/2022
<i>The rounding was corrected to the required down and up rounding.</i>				
Documentation provided by project participant				
<i>Linked BE, PE and ER spread sheet</i>				
DOE assessment				Date: 27/07/2023
The submitted document is verified. Hence,CAR15 is closed.				

CAR ID	16	Section no.	E.8.5	Date: 10/04/2022
Description of CAR				
<i>In section E.5 of the MR, value estimated in the ex-ante calculation of the approved PPD and actual values obtained during the monitoring period from calculations and Monitoring survey to be provide transparently. Correction requested</i>				
Project participant response				Date: 27/07/2023
<i>It is revised and provided in the MR.</i>				
Documentation provided by project participant				
DOE assessment				Date: 27/07/2023
The correction made is verified. Hence CAR16 is closed				

CAR ID	17	Section no.	E.8.7	Date: 10/04/2022
Description of CAR				
<i>In Section F1 of the MR filled with the details in the approved PDD and it has to be filled as per Monitoring report filling guidelines. correction requested</i>				
Project participant response				Date: DD/MM/YYYY

<i>MR is corrected.</i>	
Documentation provided by project participant	
DOE assessment	Date: DD/MM/YYYY
The correction made is verified. Hence CAR17 is closed	

Table 3. FAR from this validation

FAR ID	01	Section no.		Date: 29/08/2023
Description of FAR				
<i>The project was not operational during the site visit, the same has to be checked during next visit.</i>				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

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