

 <p style="text-align: center;"><b>Verification and certification report form for CDM programme of activities (version 02.0)</b></p>		
Complete this form in accordance with the instructions attached at the end of this form.		
<b>BASIC INFORMATION</b>		
<b>Title and UNFCCC reference number of the programme of activities (PoA)</b>	Co-composting and Composting Program of Activities for Palm Oil Mills in Indonesia (6511)	
<b>Version number(s) of the PoA-DD(s) to which this report applies</b>	04	
<b>Version number of the verification and certification report</b>	03	
<b>Completion date of the verification and certification report</b>	20/11/2018	
<b>Monitoring period number and duration of this monitoring period</b>	01, 01/01/2013 – 30/06/2018	
<b>Number and version number of the monitoring report to which this report applies</b>	01, Version 05	
<b>Coordinating/managing entity (CME)</b>	PT Socfin Indonesia	
<b>Host Parties</b>	Host Parties of the PoA	Is this a host Party to a CPA covered in this report? (yes/no)
	Indonesia	Yes
<b>Applied methodologies and standardized baselines</b>	AMS-III.F version 10 Avoidance of methane emissions through composting	
<b>Mandatory sectoral scopes linked to the applied methodologies</b>	13	
<b>Conditional sectoral scopes linked to the applied methodologies, if applicable</b>	--	
<b>Estimated amount of GHG emission reductions or GHG removals for this monitoring period in the included CPAs covered in this report</b>	55,715 tCO <sub>2</sub>	
<b>Certified amount of GHG emission reductions or GHG removals for this monitoring period for the included CPAs covered in this report</b>	27,656 tCO <sub>2</sub>	
<b>Name and UNFCCC reference number of the DOE</b>	TÜV SÜD South Asia Private Limited (E-0005)	

**Name, position and signature of the  
approver of the verification and  
certification report**



Milind Shende  
Manager- Certification Body  
TUV SUD South Asia Pvt Ltd

**SECTION A. Executive summary**

TÜV SÜD South Asia Pvt. Ltd. has performed the first verification of the aforementioned CDM PoA. The verification is based on the currently valid documentation of the United Nations Framework Convention on Climate Change (UNFCCC).

The verification process includes three phases:

- Desk review of documents;
- On-site audit and follow-up interviews with the relevant personnel;
- Resolution of outstanding issues
- Issuance of final verification report and opinion.

The “Co-composting and Composting Program of Activities for Palm Oil Mills in Indonesia” includes small-scale project activities that conduct aerobic decomposition of:

- (i) solid empty fruit branches (EFB); and/or
- (ii) liquid Palm Oil Mill Effluent (POME).

POME and EFB which are the major organic waste streams generated from Mills during the process of extracting Crude Palm Oil from Fresh Fruit Branches (FFB). The output of the composting / co-composting process will be organic compost which can be recycled back onto the Mill's palm plantation or onto other neighboring plantations.

The Component project activity (CPA) is located at PT. Socfin Indonesia's Bangun Bandar crude palm oil mill in Serdang Bedagai regency, North Sumatra province, Indonesia. The project has geographical coordinates of 98°57'58.70" - 99°4'36.33" E and 3°16'24.46" - 3°20'32.54" N.

PT Socfin Indonesia is the current Coordinating and Managing Entity (CME) for the PoA. Previously the CME was PT. Carbon Agro Indo and the change of the CME has been approved by the Republic of Indonesia Designated National Authority on 23/07/2018.

The CPA has been implemented and was commissioned between February and March 2012. The start date of operation was 08/03/2012. The monitoring has been carried out in accordance with the registered monitoring plan.

2 Clarification Requests (CLs) and 5 Corrective Action Request (CARs) were raised during the course of verification process and have been successfully closed. No Forward Action Request (FAR) was/were raised during this monitoring period.

**SECTION B. Verification team, technical reviewer and approver****B.1. Verification team members**

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 review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader Verifier and Technical Expert	IR	Murty	Eswar	TUV SUD South Asia	✓	✓	✓	✓

**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	EI	Meesa	Srikanth	TUV SUD South Asia
2	Approver	IR	Shende	Milind	TUV SUD South Asia

**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 risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Human errors	Medium	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring processes.	Wherever there is a greater likelihood of errors and chances of incorrect transfer of data, effective data verification should be done on those days/months data. Data related to holiday months need to be checked thoroughly.
2	Design of data management	Medium	Use of spreadsheets without adequate data control, changes/updates, version tracking, traceability and security	Depending on how data is generated, processed, and reported, place greater emphasis on verifying data captured and processed manually and/or in spreadsheets versus those that are generated from an automated system.
3	Manual data	Low	Typographic errors in	Require the PPs to assess

			the spreadsheets and log books while recording.	all the data again and confirm that no further errors are made.
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## C.2. Consideration of materiality in conducting the verification

The errors identified in the project are below the threshold limit of materiality and hence not material. The GHG emission reductions are calculated without material misstatements

## SECTION D. Means of verification

### D.1. Desk/document review

Publication has been initiated before the start of verification activities. Based on the published MR the assessment team performed a desk review to:

- verify the completeness of the data and the information presented in the MR,
- check the compliance of the MR with respect to the monitoring plan depicted in the registered PDD and verify that the applied methodology was carried out.
- check the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures
- evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions

**D.2. On-site inspection**

Duration of on-site inspection: 13/09/2018- 14/09/2018				
No.	Activity performed on-site	Site location	Date	Team member
1	Plant inspection, location of equipment, monitoring of current parameters, risks, project boundaries	PT Socfin Indonesia, Bangun Bandar, Indonesia	13/09/2018	Eswar Murty
2	Verified the technical description, daily and monthly plant records, outage details, evidence documents, trouble shooting procedure	Plant Office	13/09/2018	Eswar Murty
3	Verified the socio economic issues, Environmental legislation, Rules and regulations, consent status during monitoring period	Plant Office	14/09/2018	Eswar Murty
4	Assessed the calibration frequency and status of the monitoring equipments, accuracy label as described in the registered PDD, QA/QC procedures, responsibility, data review and controlling, training of monitoring personal	Plant office	14/09/2018	Eswar Murty
5	Assessed the emission reduction procedure and verified the emission reductions excel sheet data with plant records	Plant office	14/09/2018	Eswar Murty

**D.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Situmorang	Dasit	PT Socfin Indonesia	13/09/2018-14/09/2018	Plant technology and monitoring	Eswar Murty
2	Kelu	Marion	PT Socfin Indonesia	13/09/2018-14/09/2018	Plant technology and monitoring	Eswar Murty
3	Barus	Daniel	PT Socfin Indonesia	13/09/2018-14/09/2018	Plant technology and monitoring	Eswar Murty
4	Surya	Erwanda	PT Socfin Indonesia	13/09/2018-14/09/2018	Plant technology and monitoring	Eswar Murty
5	Enthoven	Cedric	PT Socfin Indonesia	13/09/2018-14/09/2018	Plant technology and monitoring	Eswar Murty
6	Harding	Mark	Consultant	13/09/2018-14/09/2018	CDM Monitoring / Documentation	Eswar Murty

**D.4. Sampling approach**

Not applicable.

**D.5. Clarification requests, corrective action requests and forward action requests raised**

<b>Areas of verification findings</b>	<b>No. of CL</b>	<b>No. of CAR</b>	<b>No. of FAR</b>
<b>General</b>			
Compliance of the monitoring report with the monitoring report form			
Remaining forward action requests from validation and/or previous verification			
CPA(s) considered for verification and covered in this report			
<b>Programme of activities</b>			
Compliance of the programme implementation with the registered PoA-DD			
Implementation and operation of the management system	1		
Post-registration changes			
<ul style="list-style-type: none"> <li>Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline</li> </ul>			
<ul style="list-style-type: none"> <li>Corrections</li> </ul>			
<ul style="list-style-type: none"> <li>Inclusion of a monitoring plan</li> </ul>			
<ul style="list-style-type: none"> <li>Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools</li> </ul>			
<ul style="list-style-type: none"> <li>Changes to the programme design or project design</li> </ul>			
<ul style="list-style-type: none"> <li>Change of coordinating/managing entity</li> </ul>		1	
<ul style="list-style-type: none"> <li>Changes specific to afforestation and reforestation activities</li> </ul>			
<b>Component project activities</b>			
Compliance of the CPA implementation with the included CPA design document			
Post-registration changes			
<ul style="list-style-type: none"> <li>Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline</li> </ul>			
<ul style="list-style-type: none"> <li>Corrections</li> </ul>			
<ul style="list-style-type: none"> <li>Changes to the start date of the crediting period of component project activities</li> </ul>			
<ul style="list-style-type: none"> <li>Inclusion of a monitoring plan</li> </ul>			
<ul style="list-style-type: none"> <li>Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools</li> </ul>			
<ul style="list-style-type: none"> <li>Changes to the programme design of project design</li> </ul>			
<ul style="list-style-type: none"> <li>Changes specific to afforestation and reforestation component project activities</li> </ul>			
Compliance of the registered monitoring plan with the methodology including applicable tool(s) and standardized baseline			
Compliance of monitoring activities with the registered monitoring plan			

• Data and parameters fixed ex ante or at renewal of crediting period		1	
• Data and parameters monitored		1	
• Implementation of sampling plan			
Compliance with the calibration frequency requirements for measuring instruments			
Assessment of data and calculation of emission reductions or net removals		2	
• Calculation of baseline GHG emissions or baseline net GHG removals by sinks			
• Calculation of project GHG emissions or actual net GHG removals by sinks	1		
• Calculation of leakage GHG emissions			
• Summary of calculation of GHG emission reductions or net GHG removals by sinks			
• Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included CPA			
• Remarks on difference from estimated value in included CPA			
Assessment of reported sustainable development co-benefits			
Global stakeholder consultation			
Others (please specify)			
<b>Total</b>	2	5	0

## SECTION E. Verification findings

### E.1. General

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

<b>Means of verification</b>	To check the compliance of the monitoring report with the latest monitoring report form available at UNFCCC.
<b>Findings</b>	The latest version of MR form available at UNFCCC is 2.0 and same has used by the CME in the monitoring report.
<b>Conclusion</b>	TUV SUD confirms that the monitoring report has been prepared on the latest version of the MR available at UNFCCC.

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

No FARs remaining from Validation.

#### E.1.3. CPAs considered for verification and covered in this report

Title and UNFCCC reference number of the CPA included in the PoA as of the end of this monitoring period	Is the CPA considered for this verification? (yes/no)	The date when the CPA was included	Version of the PoA-DD	Confirmation that a request for issuance including the CPA has been published for the previous monitoring period (Y/N)
CPA001 - Socfindo EFB plus POME Co-composting Project	Yes	29/06/2012	Revised version 04	N



## E.2. Programme of activities

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

<b>Means of verification</b>	<p>The CME has implemented the PoA as set out in section A.4.4. of the PoA-DD, specifically by following the approved Management Plan referred to into that section (<i>Management Plan for the inclusion of CPAs into the PoA</i>). In this regard it has implemented the management system, structure and procedures within the CME for inclusion of CPA's in accordance with the Management Plan. The CE has also implemented a data management and reporting system within the CE and between the CPA owner and the CE, which was prepared in accordance with applicable provisions on the implementation of the management system for a PoA in the Project Standard. The CME has also ensured a record keeping system for each CPA under the PoA has been established which meets all the requirements in the PoA Project Standard, and captures all the required data and requirements as set out in the registered CPA-DD</p> <p>As per section A.4.4 of the PoA-DD, the CME has established an adequate and accurate monitoring system for CPA001 which meets the monitoring requirements as set out in <i>AMS-III.F version 10</i>. Specifically, in this regard the CME has:</p> <ul style="list-style-type: none"> <li>• conducted training for data monitoring as required;</li> <li>• assisted with monitoring system establishment and calibration as required.</li> <li>• managed the records of CPA including data required to calculate emission reductions;</li> <li>• ensured rigorous reporting of the CPA Entity;</li> <li>• verified information sent by the CPA Entity;</li> <li>• prepared the monitoring report and all supporting documentation for Verification</li> </ul>
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the implementation and operation of the registered CDM PoA have been conducted in accordance with the description contained in the registered PoA-DD in line with p.339 of CDM VVS PoA v1.0.

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

<b>Means of verification</b>	<p>The CME has implemented the PoA as set out in section A.4.4. of the PoA-DD, specifically by following the approved Management Plan referred to into that section (<i>Management Plan for the inclusion of CPAs into the PoA</i>). In this regard it has implemented the management system, structure and procedures within the CE for inclusion of CPA's in accordance with the Management Plan. The CE has also implemented a data management and reporting system within the CE and between the CPA owner and the CME, which was prepared in accordance with applicable provisions on the implementation of the management system for a PoA.</p>
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the implementation and operation of the registered CDM PoA have been conducted in accordance with the description contained in the registered PoA-DD in line with p.339 of CDM VVS PoA v1.0.

**E.2.3. Post-registration changes****E.2.3.1. Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline**

Not applicable.

**E.2.3.2. Corrections**

Not applicable.

**E.2.3.3. Inclusion of a monitoring plan**

Not applicable.

**E.2.3.4. Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools**

Not applicable.

**E.2.3.5. Changes to the programme design or project design**

Not applicable.

**E.2.3.6. Change of coordination/managing entity**

The Coordinating and Managing Entity has been changed from PT Carbon Agro to PT Socfin Indonesia on 23/07/2018. The DNA of Indonesia has approved this change of CME on 23/07/2018.

**E.2.3.7. Changes specific to afforestation and reforestation activities**

Not applicable.

**E.3. Component project activities****E.3.1. Compliance of the CPA implementation with the included CPA design document**

<b>Means of verification</b>	The CPA has been implemented and was commissioned between February and March 2012. The start date of operation was 08/03/2012. The monitoring has been carried out in accordance with the registered monitoring plan.
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the implementation of the registered CDM CPA have been conducted in accordance with the description contained in the included CPA-DD in line with p.339 of CDM VVS PoA v1.0.

**E.3.2. Post-registration changes****E.3.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline**

Not applicable.

**E.3.2.2. Corrections**

Change of CME is validated as post registration changes and accordingly the validation opinion has been submitted along with the request for issuance.

**E.3.2.3. Changes to the start date of the crediting period of component project activities**

Not applicable.

**E.3.2.4. Inclusion of a monitoring plan**

Not applicable.

**E.3.2.5. Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline, or other applied standards or tools**

Not applicable.

**E.3.2.6. Changes to the programme design or project design**

Not applicable.

**E.3.2.7. Changes specific to afforestation and reforestation component project activities**

Not applicable.

**E.3.3. Compliance of the registered monitoring plan with the methodology including applicable tool(s) and standardized baseline**

<b>Means of verification</b>	The monitoring plan is checked with the methodology AMS III.F version 10.
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the registered monitoring plan is in accordance with the applied methodologies including applicable tools in line with p.342 of CDM VVS PoA v1.0.

**E.3.4. Compliance of monitoring activities with the registered monitoring plan****E.3.4.1. Data and parameters fixed ex ante or at renewal of crediting period**

<b>Means of verification</b>	The data and parameters fixed ex ante have been checked from the CPA-DD, approved methodology and IPCC.
<b>Findings</b>	CAR 5 has been raised since the default values for COD removal efficiency and MCF value for BECh <sub>4</sub> , swds are not in line with the CPA-DD. PP has corrected the values subsequently and the issue has been closed.
<b>Conclusion</b>	TÜV SÜD confirms that the values fixed ex ante are in line with the requirements of p. 345 of CDM VVS PoA v1.0

**E.3.4.2. Data and parameters monitored**

<b>Means of verification</b>	The below tables provide a summary on the verification of every parameter listed in the registered monitoring plan.
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	<b>Data / Parameter:</b>	$W_{j,x}$
	Data unit:	tons
	Description:	Amount of organic waste type j prevented from disposal in the SWDS in year x
	Source of data used:	Plant records
	Means of verification/Comments:	The weighing is done whenever a truck transporting the organic waste passes the weighing bridge. Data is being recorded daily in a log sheet and aggregated weekly and monthly. The data has been checked from the weighbridge log records.
	Cross-check	--
	<b>Data / Parameter:</b>	$Q_{y, treatment}$
	Data unit:	tons
	Description:	Quantity of produced compost
	Source of data used:	Plant records
	Means of verification/Comments:	The weighing is done whenever a truck transporting the compost passes the weighing bridge. Data is being recorded daily in a log sheet and aggregated weekly and monthly. The data has been checked from the weighbridge log records.
	Cross-check	--
	<b>Data / Parameter:</b>	$FC_{diesel\ oil,y}$
	Data unit:	litre
	Description:	Fossil fuel (diesel oil) consumption in year y
	Source of data used:	Plant records
	Means of verification/Comments:	The quantity of diesel combusted in process is measured by the flow meter and the audit team has checked the flow meter and complete set of data for the monitoring period from the spreadsheets and compared with the plant records.
	Cross-check	The values are cross-checked with the invoice of purchased quantities and stock changes.
	<b>Data / Parameter:</b>	<b>Density</b> <sub>diesel oil</sub>
	Data unit:	kg/litre
	Description:	Density of Diesel Oil
	Source of data used:	Supplier data
	Means of verification/Comments:	Density of the diesel oil data is available in the fuel delivery note made by supplier and will be manually recorded by operator. This data is aggregated and averaged monthly. Monthly data has been checked for the density values.
	Cross-check	--

<b>Data / Parameter:</b>	<b><i>NCV<sub>diesel oil</sub></i></b>
Data unit:	TJ/Gg
Description:	Net Calorific Value of Diesel Oil
Source of data used:	IPCC
Means of verification/Comments:	The audit team has checked the default value of 43.3 as per IPCC.
Cross-check	--

<b>Data / Parameter:</b>	<b><i>Oxygen content</i></b>
Data unit:	%
Description:	Percentage of dissolvent oxygen content
Source of data used:	Plant records
Means of verification/Comments:	The oxygen content is measured with the help of oxygen sensors installed at each of the bunkers. The default minimum oxygen level is set at 10% for the project activity.
Cross-check	--

<b>Data / Parameter:</b>	<b><i>Q<sub>ww,i,y</sub></i></b>
Data unit:	m <sup>3</sup>
Description:	Volume of wastewater treated in baseline wastewater treatment system i in year y
Source of data used:	Plant records
Means of verification/Comments:	Volume of the wastewater treated in baseline wastewater treatment/wastewater enters the co-composting project in the project situation is continuously measured by flow meter and manually recorded daily by operator. The monthly values are checked from the plant records.
Cross-check	--

<b>Data / Parameter:</b>	<b><i>COD<sub>inflow,i,y</sub></i></b>
Data unit:	t/ m <sup>3</sup>
Description:	Chemical oxygen demand of the wastewater inflow to the baseline treatment system i in year y
Source of data used:	Plant records
Means of verification/Comments:	The audit team has checked the records for the monthly COD inflow data from the COD analysis data.

	Cross-check	Volume of waste water treated.
	<b>Data / Parameter:</b>	<b><math>COD_{ww, discharge, BL, y}</math></b>
	Data unit:	t/ m <sup>3</sup>
	Description:	Chemical oxygen demand of the treated wastewater discharged into the river in the baseline situation in the year y
	Source of data used:	Plant records
	Means of verification/Comments:	Calculated value based on COD inflow and baseline COD removal efficiency.
	Cross-check	Volume of waste water treated.
	<b>Data / Parameter:</b>	<b><math>f</math></b>
	Data unit:	-
	Description:	Fraction of methane captured at the SWDS and flared, combusted or used in another manner
	Source of data used:	Not applicable
	Means of verification/Comments:	Not applicable
	Cross-check	--
	<b>Data / Parameter:</b>	<b><math>EF_{CO_2, diesel\ oil}</math></b>
	Data unit:	kg/TJ
	Description:	CO <sub>2</sub> emission factor of Diesel Oil
	Source of data used:	Default value
	Means of verification/Comments:	IPCC Default value is used for calculations.
	Cross-check	--
<b>Findings</b>	CAR 3 and CAR 4 have been raised with respect to the monitoring equipment and the discrepancy of monitoring data. PP has revised the MR and ER sheets to resolve the issues.	
<b>Conclusion</b>	<p>The monitoring has been carried out in accordance with the monitoring plan contained in the included CPA-DD. All parameters were monitored and determined as per the registered monitoring plan. Referring to the VVS PoA v1.0, DOE confirms through on-site verification and from the document review, the actual monitoring system complies with the registered monitoring plan. The substantiation of this conformity on information flow for these parameters including the values in the monitoring reports is reported in the above</p> <p>During the verification, all relevant monitoring parameters of the registered monitoring plan have been verified with regard to the appropriateness of the verification method, the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. After appropriate corrections, carried out by the project participant, it is confirmed that all monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements.</p>	

	All parameters required to be monitored are recorded at the intervals required by the registered monitoring plan and the applied methodology. On the basis of review of source and nature of available evidences and records, the verification team confirms the quality of evidence for emission reduction provided is sufficient as per VVS PoA v1.0
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**E.3.4.3. Implementation of sampling plan**

<b>Means of verification</b>	Not applicable
<b>Findings</b>	Not applicable
<b>Conclusion</b>	Not applicable

**E.3.4.4. Compliance with the calibration frequency requirements for measuring instruments**

<b>Means of verification</b>	The audit team has checked the calibration certificates of the electricity meters and the flow meter. The list of the equipment and the calibration details are provided below.				
	<b>Meter/ equipment details</b>	<b>S.No</b>	<b>Accuracy class</b>	<b>Calibration date</b>	<b>Validity</b>
	Weigh Bridge	074350113 until 29/09/2014	22.5t /1.7 Kg	16/07/2012 10/07/2013 10/07/2014	15/07/2013 09/07/2014 09/07/2015
		134750202 from 30/09/2014		30/09/2014 22/07/2015 21/07/2016 18/08/2017	29/09/2015 21/07/2016 20/07/2017 17/08/2018
	Fuel Meter	737B00	60 L (Max) – 6 L (Min)	14/05/2012 14/05/2013 12/05/2014 11/05/2015 15/05/2016 13/05/2017 16/05/2018	13/05/2013 13/05/2014 11/05/2015 10/05/2016 14/05/2016 12/05/2017 15/05/2019
	Oxygen Sensor	--	±1% at 20°C and 1013mbar	16/07/2012 12/07/2013 11/07/2014 10/07/2015 12/07/2016 12/07/2017	15/07/2013 11/07/2014 10/07/2015 09/07/2016 11/07/2017 11/07/2018
	Flow Meter	2629662	14.776 M <sup>3</sup> /H (Max) – 0.24626 M <sup>3</sup> /H (Min)	14/05/2012 14/05/2013 12/05/2014 11/05/2015 15/05/2016 13/05/2017 16/05/2018	13/05/2013 13/05/2014 11/05/2015 10/05/2016 14/05/2017 12/05/2018 15/05/2019
<b>Findings</b>	<p>CAR 3 has been raised since the calibration details of the monitoring equipment are not clearly specified in the MR.</p> <p>PP has revised the MR. However, delay of calibration of 2-3 days was observed in case of fuel meter, oxygen sensor and flow meter for which the necessary corrections need to be applied in the ER calculations by the PP. Subsequently PP has applied the necessary correction factors in the ER calculations.</p>				

<b>Conclusion</b>	TUV SUD confirms that the calibration of the measuring equipment has no impact on the claimed GHG emission reductions or net anthropogenic GHG removals conducted by the coordinating/managing entity.
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### E.3.5. Assessment of data and calculation of emission reductions or net removals

#### E.3.5.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

<b>Means of verification</b>	Baseline emissions are calculated based on the baseline emission due to methane generation potential of the solid waste composted and baseline emissions from the wastewater co-composted, calculated as per the procedures in AMS-III.H. The calculations have been checked from the ER spreadsheet in detail.
<b>Findings</b>	CAR 4 and CAR 5 have been raised with respect to the calculations.
<b>Conclusion</b>	TUV SUD confirms that the calculations, applied formulae and method for calculation of baseline emissions are in accordance with the registered monitoring plan and are in line with the requirements of the applied methodology and p.359 of CDM VVS PoA v1.0.

#### E.3.5.2. Calculation of project GHG emissions or actual net GHG removals by sinks

<b>Means of verification</b>	Project emissions are calculated based on the The project emission from fossil fuel combustion. The calculations have been checked from the ER spreadsheet in detail.
<b>Findings</b>	CAR 4 and CAR 5 have been raised with respect to the calculations.
<b>Conclusion</b>	TUV SUD confirms that the calculations, applied formulae and method for calculation of project emissions are in accordance with the registered monitoring plan and are in line with the requirements of the applied methodology and p.359 of CDM VVS PoA v1.0.

#### E.3.5.3. Calculation of leakage GHG emissions

<b>Means of verification</b>	No leakage emissions.
<b>Findings</b>	No leakage emissions.
<b>Conclusion</b>	No leakage emissions.

#### E.3.5.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

<b>Means of verification</b>	<p>The Emission reduction calculations have been checked from the historical data, default values, baseline and project emissions data. The calculations have been checked from the ER spreadsheet in detail.</p> <p>Verified emission reductions in this monitoring period: 27,656 (round down to nearest integer) tCO<sub>2</sub>e</p> <p>Baseline: 28,030.53 tCO<sub>2</sub>e  Project emissions: 373.67 tCO<sub>2</sub>e  Leakage: 0 tCO<sub>2</sub>e</p>
<b>Findings</b>	CAR 4 and CAR 5 have been raised with respect to the calculations.
<b>Conclusion</b>	TUV SUD confirms that the calculations, applied formulae and method for calculation of emission reductions are in accordance with the registered monitoring plan and are in line with the requirements of the applied methodology and p.359 of CDM VVS PoA v1.0.



Title and UNFCCC reference number of the CPA	Baseline emissions or baseline net GHG removals by sinks (tCO <sub>2</sub> e)	Project emissions or actual net GHG removals by sinks (tCO <sub>2</sub> e)	Leakage (tCO <sub>2</sub> e)	GHG emission reductions or net GHG removals by sinks (tCO <sub>2</sub> e)		
				Amount achieved before 1 January 2013	Amount achieved from 1 January 2013	Amount achieved in the entire monitoring period
CPA001 - Socfindo EFB plus POME Co-composting Project	28,031.40	373.67	0	Not applicable	27,656.86	27,656
<b>Total</b>	<b>28,030.53</b>	<b>373.67</b>			<b>27,656.86</b>	<b>27,656</b>

#### E.3.5.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included CPA

<b>Means of verification</b>	There is no increase in the reported ERs when compared with the estimated values in the CPA-DD. However, there is a decrease of ERs with respect to the estimated values. This is due to less POME used in the actual running of the project activity vs the estimated POME used in the baseline.
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the emission reductions are real and measurable.

Title and UNFCCC reference number of the CPA	Value estimated in ex ante calculation in the included CPA-DD(s)	Actual values achieved by the CPAs during this monitoring period
CPA001 - Socfindo EFB plus POME Co-composting Project	55,715	27,656
<b>Total</b>	<b>55,715</b>	<b>27,656</b>

#### E.3.5.6. Remarks on difference from estimated value in included CPA

<b>Means of verification</b>	There is no increase in the reported ERs when compared with the estimated values in the CPA-DD.
<b>Findings</b>	No CL/CAR has been raised.
<b>Conclusion</b>	TUV SUD confirms that the emission reductions are real and measurable.

#### E.3.6. Assessment of reported sustainable development co-benefits

<b>Means of verification</b>	NA
<b>Findings</b>	NA
<b>Conclusion</b>	NA

#### E.3.7. Global stakeholder consultation

<b>Means of verification</b>	No comments were received during Global stakeholder consultation.
<b>Findings</b>	NA
<b>Conclusion</b>	NA

### SECTION F. Internal quality control

Internal quality control within the team is assured by means of a technical review process that takes place after the on-site assessment and after closure of findings. The internal quality control in the verification process is given by the final decision (Verification and Certification Conclusion) made by the CB "Environment and Energy".

**SECTION G. Verification opinion**

The DOE confirms that

- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the project is operated as planned and described in the project design document approved by the EB;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the monitoring plan in Monitoring Report is as per the PDD and monitoring plan approved by the EB;
- the approved monitoring plan in the approved PDD is as per the applied methodology;
- There is an audit trail that contains the evidence and records that validate the stated figures.

Based on the information we have seen and evaluated, we confirm that the project activity achieved the verified amount of reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the project activity.

Verified emission reductions in this monitoring period: 27,656 (round down to nearest integer) tCO<sub>2</sub>e

Baseline:	28,030.53 tCO <sub>2</sub> e
Project emissions:	373.67 tCO <sub>2</sub> e
Leakage:	0 tCO <sub>2</sub> e

**SECTION H. Certification statement**

TÜV SÜD South Asia Pvt. Ltd. Has performed the Verification of CDM CPA 001- Socfindo EFB plus POME Co-composting Project. The verification is based on the currently valid documentation of the United Nations Framework Convention on Climate Change (UNFCCC).

The management of PT Socfin Indonesia is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions on the basis set out within the project's Monitoring Plan indicated in the registered PDD and the applied methodology.

TUV SUD conducted the verification on the basis of the monitoring methodology "AMS III.F ver. 10, CPA-DD, validation report and the monitoring report, emission reduction spreadsheets and all the supporting documentation made available to us.

TÜV SUD confirms that the project is implemented as described in the validated and registered project design documents. Based on the information we have assessed, we confirm that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.

Pune, 20/11/2018



Milind Shende, Certification Body "Environment and Energy"  
TÜV SÜD South Asia Pvt Ltd

## Appendix 1. Abbreviations

Abbreviations	Full texts
<b>ABC</b>	Aerated Bunker Composting
<b>CAR</b>	Corrective Action Request
<b>CDM</b>	Clean Development Mechanism
<b>CDM-EB</b>	CDM Executive Board
<b>CER</b>	Certified Emission Reduction
<b>CME</b>	Coordinating and Managing Entity
<b>CMP</b>	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
<b>CPA</b>	Component Project Activity
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent
<b>COD</b>	Chemical Oxygen Demand
<b>CR / CL</b>	Clarification Request
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EF</b>	Emission Factor
<b>EFB</b>	Empty Fruit Bunches
<b>ER</b>	Emission Reduction
<b>FAR</b>	Forward Action Request
<b>FFB</b>	Fresh Fruit Bunches
<b>GHG</b>	Greenhouse Gas(es)
<b>GWP</b>	Global Warming Potential
<b>KP</b>	Kyoto Protocol
<b>MP</b>	Monitoring Plan
<b>MR</b>	Monitoring Report
<b>NCV</b>	Net Calorific Value
<b>PoA</b>	Programme of Activities
<b>POME</b>	Palm Oil Mill Effluent
<b>PCP</b>	Project Cycle Procedure
<b>PP</b>	Project Participant
<b>PS</b>	Project Standard
<b>TÜV SÜD</b>	TÜV SÜD South Asia Pvt. Ltd
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VVS PoA</b>	Clean Development Mechanism Validation And Verification Standard for Programme of Activities

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



South Asia

## CERTIFICATE OF APPOINTMENT

Mr. Murty, Eswar fulfills the requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	ISO-14064-1: 2006	Other
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Qualification as						
Status	Validator	Verifier	ATL	Technical Reviewer	Financial Expert	Technical Expert
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TA (s)	1.1, 1.2, 3.1, 4.1, 13.1					

Country Expertise						
Region	1	2	3	4	5	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Further countries						

Technical Area
1.1_Thermal Energy Generation
1.2_Renewables
3.1_Energy demand
4.1_Cement and lime production
13.1_Solid waste and wastewater

This appointment is valid until 31.05.2019 and is bound by internal requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0031/009.

Date	Signature
01/06/2018	

IS-CMS-CB-POG-01/05, version 03

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South Asia

## CERTIFICATE OF APPOINTMENT

Mr. Meesa, Srikanth fulfills the requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	ISO-14064-1: 2006	Other
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Qualification as						
Status	Validator	Verifier	ATL	Technical Reviewer	Financial Expert	Technical Expert
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TA (s)	1.2, 3.1, 7.1, 13.1					

Country Expertise						
Region	1	2	3	4	5	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Further countries						

Technical Area
1.2_Renewables
3.1_Energy demand
7.1_Transport
13.1_Solid waste and wastewater

This appointment is valid until 31.05.2019 and is bound by internal requirements of the Certification Body 'Environment and Energy' of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0096/005.

Date	Signature
01/03/2018	

IS-CMS-CB-POG-01/05, version 03

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### Appendix 3. Documents reviewed or referenced

No	Author	Title	References to the document	Provider
1	UNFCCC	PoA 6511: Co-composting and Composting Program of Activities for Palm Oil Mills in Indonesia <a href="https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/ZV1ADIJS9HUN23MTX6ELGK7PW4OFQ5/vi ew">https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/ZV1ADIJS9HUN23MTX6ELGK7PW4OFQ5/vi ew</a>	---	UNFCCC
2	UNFCCC	CPA 6511-0001: Socfindo EFB plus POME Co-composting Project (CPA No. 001) <a href="https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/RXNSBU81OYHK0FZV435TEQAWDM9ICJ/vi ew">https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/RXNSBU81OYHK0FZV435TEQAWDM9ICJ/vi ew</a>	---	UNFCCC
3	UNFCCC	AMS-III.F.: Avoidance of methane emissions through composting --- Version 10.0		UNFCCC
4	PT Socfin Indonesia	Published Monitoring report. Version 02	08/08/2018	PT Socfin Indonesia
5	PT Socfin Indonesia	Monitoring report. Version 05	11/11/2018	PT Socfin Indonesia
6	PT Socfin Indonesia	ER calculation spreadsheets Version 03	11/11/2018	PT Socfin Indonesia
7	CAA	Commissioning letter of the Socfindo Plant	Feb-Mar 2012	PT Socfin Indonesia
8	Serdang Regency District Government Environmental Office	Revision of BB Mill to include operation of compost plant	05/11/2013	PT Socfin Indonesia
9	PT Socfin Indonesia	CPA Operational Monitoring Manual	09/03/2012	PT Socfin Indonesia
10	PT Socfin Indonesia	SOPs for Monitoring ( Fuel, Oxygen, Compost, Compost application, Recording, Emergency preparedness)	---	PT Socfin Indonesia
11	CV Sake Enjiniring	Clarification for weighbridge calibration	13/09/2018	PT Socfin Indonesia
12	PT Socfin Indonesia	Letter for the damage and replacement of wighbridge	30/09/2014	
13	Fancom	Calibration Instructions for Oxygen sensor	---	PT Socfin Indonesia
14		Calibration certificates of Diesel fuel dispenser and incoming	01/01/2013 – 30/06/2018	PT Socfin Indonesia
15		Calibration certificates of Oxygen sensor	01/01/2013 – 30/06/2018	PT Socfin Indonesia
16		Calibration certificates of fat pit flow meter	01/01/2013 – 30/06/2018	PT Socfin Indonesia

**CDM-PoA-VCR-FORM**

17		Calibration certificates of Weighbridge	01/01/2013 – 30/06/2018	PT Socfin Indonesia
18	PT Socfin Indonesia	COD Analysis Certificates	01/01/2013 – 30/06/2018	PT Socfin Indonesia
19	PT Socfin Indonesia	Diesel density reports	01/01/2013 – 30/06/2018	PT Socfin Indonesia
20	PT Socfin Indonesia	Training records of monitoring personnel	----	PT Socfin Indonesia
21	PT Socfin Indonesia	Training record for composting personnel		PT Socfin Indonesia
22	PT Socfin Indonesia	Data Management and Reporting Plan	--	PT Socfin Indonesia
23	PT Socfin Indonesia	Monthly data for diesel consumption	01/01/2013 – 30/06/2018	
24	PT Socfin Indonesia	Monthly data for EFB and POME	01/01/2013 – 30/06/2018	
25	PT Socfin Indonesia	Monthly data for Oxygen content	01/01/2013 – 30/06/2018	
26	PT Socfin Indonesia	Communication for change of CME from PT Carbon Agro to PT Socfin Indonesia	05/07/2018	PT Socfin Indonesia
27	Ministry of Environment and Forestry, Indonesia	Approval for change of CME	23/07/2018	PT Socfin Indonesia
28	PT Socfin Indonesia	Revised MoC	05/07/2018	PT Socfin Indonesia
29	UNFCCC	CDM Validation and Verification standard for Program of Activities Version 1.0	---	UNFCCC



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

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

NA.

**Table 2. CL from this verification**

<b>CL ID</b>	01	<b>Section no.</b>	C.1	<b>Date:</b> 17/09/2018
<b>Description of CL</b>				
The MR does not provide the details regarding the shutdown or number of operating days of the plant during the monitoring period.				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<p>The Composting Plant has operated continuously during the monitoring period. It runs 24 hours a day, 365 days a year, constantly receiving EFB from the adjacent mill, composting through its bunkers and producing compost. The records of Empty Fruit Bunches (EFB) and Compost produced demonstrate that throughout the entire monitoring period the composting plant has always been operating, composting and producing compost.</p> <p>The compost plant is staffed at night, fans (providing Air into bunkers) are automatically controlled by the computer and monitoring equipment (measuring Oxygen and POME) measure continuously, thus the plant runs 24 hours a day 7 days a week.</p> <p>Section C.1 of the Monitoring Report has been updated to provide details of the operating days of the plant during the monitoring period.</p>				
<b>Documentation provided by project participant</b>				
Daily EFB and Compost Records provided in excel spreadsheet "CPA001 Key Monitoring Parameters Data Summary v0.2" which have been cross checked in verification.				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2018
Based on the on site assessment and verification of data, it is understood that there was no shutdown of the plant. The MR has been updated and hence the same is accepted and the issue is closed.				

<b>CL ID</b>	02	<b>Section no.</b>		<b>Date:</b> 17/09/2018
<b>Description of CL</b>				
PP/CME to clarify why the average distance for compost transportation is considered as zero in the calculation of project emissions.				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<p>This was covered and established during validation. In validation, the DOE has identified that in the baseline scenario, the distance travelled for disposing the EFB (which also includes disposal by dumping EFB into the plantation by truck) would be higher compared to the project activity scenario, where lesser distance is needed to transport the EFB to the composting facility. Thus, there is a negative project emission, i.e. no incremental transportation as a result of the project activity. This has been included in the FVR Section B.3.1.</p>				
<b>Documentation provided by project participant</b>				
--				

<b>DOE assessment</b>	<b>Date:</b> 01/10/2018
Due to the negative project emissions which result in zero incremental transportation in the project activity, the average distance for compost transportation is considered as zero in the calculation of project emissions. Hence the issue is closed.	

Table 3. CAR from this verification

<b>CAR ID</b>	01	<b>Section no.</b>	A.2, C.1	<b>Date:</b> 17/09/2018
<b>Description of CAR</b>				
The CME needs to mention regarding the change of entity from Carbon Agro to PT Socfin Indonesia under the section A.2 and C.1 of the MR.				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
Sections A.2 and C.1 of the MR have been updated accordingly.				
<b>Documentation provided by project participant</b>				
Revised MoC form and LoA.				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2018
The MR has been revised regarding the change of CME. Hence the issue is closed.				

<b>CAR ID</b>	02	<b>Section no.</b>	F1, f2	<b>Date:</b> 17/09/2018
<b>Description of CAR</b>				
The calculation tables provided under F.1 and F.2 are not clear enough, hence the CME is requested to provide a summary of the baseline and project emissions under these sections.				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
A summary of the baseline and project emissions have been included under these sections.				
<b>Documentation provided by project participant</b>				
Revised MR.				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2018
The MR has been revised. Hence the issue is closed.				

<b>CAR ID</b>	03	<b>Section no.</b>		<b>Date:</b> 17/09/2018
<b>Description of CAR</b>				
MR does not provide the details of Monitoring equipment: Make/S.No and Calibration.				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
Section E.2 of the MR has been updated to include the Monitoring and Calibration details of the Monitoring Equipment used to monitor the following parameters: <ul style="list-style-type: none"> <li>• <math>W_{i,x}</math></li> <li>• <math>Q_{y, treatment}</math></li> <li>• <math>FC_{diesel\ oil,y}</math></li> <li>• <i>Oxygen content</i></li> <li>• <math>Q_{ww,i,y}</math></li> </ul>				
<b>Documentation provided by project participant</b>				
<ol style="list-style-type: none"> <li>1. <i>Letter from CV. SAKÉ Enjiniring, Weighing and Automation Specialist</i> dated 13/09/2018 explaining calibration procedure for weighbridge (Original Bahasa plus English Translation)</li> <li>2. <i>First Calibration Certificate for Serial No 134750202</i> dated 30/09/2018</li> <li>3. <i>Official Socfindo Internal Report dated 30/09/2014</i> outlining details of weighbridge repair.</li> </ol>				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2018
The details of the monitoring equipment ( S.No, Make and accuracy) along with calibration details are provided in the revised MR. The clarification for weighbridge calibration has also been substantiated with the letter from the weighing and automation specialist.				
However, there is a delay of calibration for 2-3 days observed for flow meter, fuel meter and oxygen sensor. PP need to justify and apply the necessary corrections.				
<b>PP's 2nd response</b>				

Correction factors have been applied to the ER calculations and the revised sheet and MR is submitted.

**DOE final assessment**

The corrections are applied and hence the issue is closed.

<b>CAR ID</b>	04	<b>Section no.</b>		<b>Date:</b> 17/09/2018
<b>Description of CAR</b>				
<p>The following with respect to ER spreadsheet need to be revised as this does not match with log records</p> <ul style="list-style-type: none"> <li>a) EFB Value for Sep 16</li> <li>b) POME value for Nov 2014, Dec 2014, May 2015</li> <li>c) Diesel consumption for July 2013</li> <li>d) Diesel consumption data for ER does not include the trucks and hence the PE values need to be revised</li> </ul> <p>Summary sheet for total ERs also need to be provided.</p>				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<ul style="list-style-type: none"> <li>a) <b>EFB Value Sep 16:</b> CPA001 Key Monitoring Parameters Data Summary File contained a formula error for the monthly sum value for Sep 2016. Formula was Sum(D260-D290) which accidentally included value for monthly value August 2016 (Cell D260). The Sum formula has been corrected to include only the daily entries for the month of September (D261-D290) and thus the monthly value has been corrected from 1540.01 to <b>783.89</b> which is the correct monthly value. This value has also been updated in the ER calculation spreadsheet.</li> <li>b) <b>POME value for</b> <ul style="list-style-type: none"> <li>a. <b>Nov 2014:</b> CPA001 Key Monitoring Parameters Data Summary File data entry for daily POME on 26/11/2014 was entered incorrectly. It was recorded as 4, when it should have been 44. This has been corrected and now the monthly value has been amended from 1416 to the correct monthly value of <b>1456</b>. This value has also been updated in the ER calculation spread sheet.</li> <li>b. <b>Dec 2014:</b> CPA001 Key Monitoring Parameters Data Summary File data entry for daily POME on 31/12/2014 was missing. The correct value (62) has been entered and the monthly value for December 2014 has been amended from 1544 to <b>1606</b>. This value has also been updated in the ER calculation spreadsheet.</li> <li>c. <b>May 2015:</b> CPA001 Key Monitoring Parameters Data Summary File contained a formula error for the monthly sum value for May 2015, which excluded by mistake daily POME value from 1/5/2015. Monthly Sum formula updated from Sum(E134:E163) to SUM(E133:E163). The POME value for Month of May 2015 has been updated from 1538 to <b>1584</b>. This value has also been updated in the ER calculation spreadsheet.</li> </ul> </li> <li>c) <b>Diesel consumption for July 2013</b> CPA001 Key Monitoring Parameters Data Summary File data daily entry for 06/07/2013 under Diesel for Composting Facility column was entered incorrectly. It was recorded as 22.73, when it should have been 33.73. This has been corrected and now the monthly value for the combined Diesel for Composting (Diesel for Composting Facility plus Diesel for Truck usage) has been corrected to <b>3,654.82</b> from 3,644.82. This value has also been updated in the ER calculation spread sheet</li> <li>d) <b>Diesel Consumption data for ER:</b> The ER spreadsheet has been updated so that the Diesel Consumption data does include diesel from trucks, and the PE values have been revised.</li> </ul>				
<b>Documentation provided by project participant</b>				

Updated excel spread sheet <i>CPA001 Key Monitoring Parameters Data Summary v0.2</i>	
<b>DOE assessment</b>	<b>Date:</b> 01/10/2018
EFB, POME and diesel consumption values have been corrected as per the log book data . However the default values of NCV and CO2 Emission factor of diesel are not correctly presented in the calculation sheet. PP to make the necessary corrections and update the MR/ER sheets.	
<b>PP further response</b>	
The values have now been corrected and accordingly the MR and ER sheets have been updated.	
<b>DOE further assessment</b>	
The values are now consistent and the same has been checked and confirmed from the MR and the ER revised documents. Hence the issue is closed.	

<b>CAR ID</b>	05	<b>Section no.</b>		<b>Date:</b> 17/09/2018
<b>Description of CAR</b>				
The following default values used in the ER sheet does not match with the PDD				
a) COD removal efficiency				
b) MCF value for BECh4, swds				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
The default values for COD removal efficiency has been revised to 99.4% whilst the MCF for BECh4, swds has been updated to zero. This has been updated in both the ER spreadsheet and the MR.				
<b>Documentation provided by project participant</b>				
Revised MR and ER spreadhsheet.				
<b>DOE assessment</b>				<b>Date:</b> 01/10/2018
The MR and the ER sheet have been revised. Hence the issue is closed.				

Table 4. FAR from this verification

NA.