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# CPA Validation Report

VALIDATION OF THE CDM CPA-PROJECT:  
FETTY MINA JAYA CO-COMPOSTING – UNDER POA  
COMPOSTING AND CO-COMPOSTING PROGRAMME OF  
ACTIVITIES (POA) IN INDONESIA (CPA No. 01)

TITLE OF THE POA TO WHICH CPA IS TO BE  
INCLUDED:  
COMPOSTING AND CO-COMPOSTING PROGRAMME  
OF ACTIVITIES (POA) IN INDONESIA

REPORT NO. 1431471

**10 August 2011**

TÜV SÜD Industrie Service GmbH  
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Report No.	Date of first issue	Revision No.	Revision Date	Certificate No.
1431471	01-08-2011	02	10-08-2011	-

<b>Subject:</b> Validation of the CDM CPA under the PoA - Composting and Co-composting Programme of Activities (PoA) in Indonesia	
<b>CPA Title:</b> Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia	
<b>Accredited TÜV SÜD Unit:</b> TÜV SÜD Industrie Service GmbH Certification Body “climate and energy” Westendstr. 199 80686 Munich Germany	<b>TÜV SÜD Contract Partner:</b> TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 80686 Munich Germany
<b>Managing Entity:</b> PT. Composting Program International (PT.CPI), Jl. M. H. Thamrin No. 1, 50/F, Menara BCA, Grand Indonesia, Jakarta, DKI Jakarta, 10310, Indonesia	<b>CPA Implementer:</b> PT. Fetty Mina Jaya, Jalan Hang Tuah I No. 6, Pe- kanbaru, Riau Province, Indonesia,
<b>Project Site(s):</b> Fetty Mina Jaya palm oil mill, Lukud – Kampung Jawa village, Rumbai Pesisir subdistrict, Pe- kanbaru, Riau province, Indonesia, (N 0.65014° <a href="#">latitude</a> and E 101.48678° <a href="#">longitude</a> )	
<b>Applied Methodology / Version:</b> AMS.III.F / Version 08	<b>Scope(s):</b> 13 <b>Technical Area(s):</b> 13.1
<b>First CPA-DD Version (GSP):</b> Date of issuance: 12-12-2009 Version No.: 01 Starting Date of GSP 22-12-2009	<b>Final CPA-DD version:</b> Date of issuance: 09-08-2011 Version No.: 04
<b>Estimated Annual Average Emission Reduction:</b>	<b>22,416 tCO<sub>2</sub>e</b>
<b>Assessment Team Leader:</b> Nikunj Agarwal  <b>Assessment Team Members:</b> Praveen Pyata, Bratin Roy, Stephan Hild, Praveen Tekchandani	<b>Technical Reviewer:</b> Cathy Wu  <b>Responsible Certification Body Members:</b> Thomas Kleiser
<b>Summary of the CPA Validation and inclusion Opinion:</b>	
<input checked="" type="checkbox"/> The review of the CPA design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence for the determination of the CPA’s fulfilment of all stated criteria in the PoA. In our opinion, the CPA meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD recommends the CPA for inclusion under the PoA to the CDM Executive Board (CDM-EB).	
<input type="checkbox"/> The review of the CPA design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence for the determination of the CPA’s fulfilment of all stated criteria in the PoA. Therefore, TÜV SÜD will not recommend the CPA for inclusion under the PoA and will inform the PoA managing entity, CPA implementer(s) and the CDM Executive Board of this decision.	

## ABBREVIATIONS

<b>AMS</b>	Approved Methodology Small scale
<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>CMP</b>	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
<b>CPA</b>	CDM Programme activity
<b>CPA-DD</b>	CDM Programme Activity Design Document
<b>CR / CL</b>	Clarification Request
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EF</b>	Emission Factor
<b>EIA / EA</b>	Environmental Impact Assessment / Environmental Assessment
<b>ER</b>	Emission Reduction
<b>FAR</b>	Forward Action Request
<b>GHG</b>	GreenHouse Gas(es)
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IRL</b>	Information Reference List
<b>KP</b>	Kyoto Protocol
<b>MP</b>	Monitoring Plan
<b>PDD</b>	Project Design Document
<b>PoA</b>	Programme of Activities
<b>PoA-DD</b>	Programme of activities design document
<b>PO</b>	Partner Organisation
<b>PP</b>	Project Participant
<b>TÜV SÜD</b>	TÜV SÜD Industrie Service GmbH
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VVM</b>	Validation and Verification Manual

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## 1 INTRODUCTION

### 1.1 Objective

The objective of the validation process is to provide an independent assessment by a third party, a Designated Operational Entity (DOE), of the evaluation of the CDM Project Activity (CPA), based on Programme of Activities (PoA) design, and criteria outlined for CPA inclusion under the Clean Development Mechanism (CDM) of UNFCCC.

The assessment involves the evaluation of the CPA basis and design identified in the PoA Design Document (PoA-DD) and the template CPA design document (CPA-DD) using the defined criteria outlined by the registration under the Clean Development Mechanism (CDM). CPA validation is part of the PoA CDM project cycle and results in a conclusion by the executing DOE on whether or not a CPA is valid to be included under the PoA.

This validation and inclusion is for the first completed CDM Programme Activity Design document (CPA-DD) titled:

**Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia**

to be included under the PoA Titled:

**Composting and Co-composting Programme of Activities (PoA) in Indonesia**

### 1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM CPA, the scope is set by:

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions and specific guidance outlined by the EB which are published under <http://cdm.unfccc.int>
- PoA-DD document
- Guidelines for completing the CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- Applicable environmental and social impacts and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice



The validation process is not meant to provide any form of consulting for the PoA project participant(s) (PP) and CPA Implementer(s). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the project design.

Once TÜV SÜD receives the CPA-DD, it is made publicly available on the UNFCCC website and on TÜV SÜD's website, which initiates a 30 day global stakeholder consultation process (GSP). In special circumstances, such as when a project design changes, the GSP may need to be repeated. Information on the CPA-DDs is presented on page 1 of this report.

The purpose of a validation is to demonstrate compliance or non-compliance of the project with all stated and valid CDM requirements. Additionally, the purpose of validation is to enable the registration of CDM projects, which is only a part of the total CDM project cycle.

## 2 VALIDATION METHODOLOGY

The project assessment is based on the “Clean Development Mechanism Validation and Verification Manual”, Version 1.2 and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CPA project activity are appointed. Once the project is made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified, and the preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB “climate and energy” before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. TÜV SÜD has developed a methodology-specific protocol customized for the CPA. The protocol demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- To organize the details and provision of clarifications on the requirements which a CPA-DD is expected to meet
- To elucidate how a particular requirement has been validated as well as to document the results of the validation and any adjustments made thereby to the CPA-DD.

The validation protocol consists of three tables. The different columns in these tables are described in the tables below.

<b>Validation Protocol Table 1: Conformity of CDM Programme Activity (CPA)</b>				
<b>Checklist Topic / Question</b>	<b>Reference</b>	<b>Comments</b>	<b>Draft</b>	<b>Final</b>
<i>The checklist is organised in sections following the arrangement of the applied CPA-DD version. Each section is then sub-divided. The lowest level constitutes a checklist question / criterion.</i>	<i>The section gives reference to documents in which the answer to the checklist question or item is found in case the comment refers to documents other than the CPA-DD.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is used to explain the conclusions reached. In some cases sub-checklists are applied indicating yes/no decisions on the compliance with the stated criterion. Any <b>Request</b> has to be substantiated within this column.</i>	<i>The section is used to present conclusions based on the assessment of the first CPA-DD version. The CPA-DD is either acceptable based on evidence provided (<input checked="" type="checkbox"/>) or a <b>Corrective Action Request (CAR)</b> is issued due to non-compliance with the checklist question (See below). <b>Clarification Request (CR)</b> is used when the validation team has identified a need for further clarification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final CPA-DD version and further documents including assumptions presented in the documentation.</i>

<b>Validation Protocol Table 2: Resolution of Clarification and Corrective Action Requests</b>			
<b>Clarifications and corrective action</b>	<b>Ref. to table 1</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>
<i>If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue is explained.</i>	<i>The responses given by the managing entity and/or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the discussion on and revision to PoA documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final".</i>

In case it is found that the project activity does not meet the CPA requirements, more detailed information on this decision is presented in Table 3.

<b>Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests</b>		
<b>Clarifications and corrective action requests</b>	<b>Id. of CAR/CR</b>	<b>Explanation of the Conclusion for Denial</b>
<i>Referenced request if final conclusions from table 2 resulted in a denial.</i>	<i>Identifier of the Request.</i>	<i>Detailed explanation of why the CPA is considered non-compliant with a criterion and a clear reference to the criterion</i>

The completed validation protocol is enclosed in Annex 1.

## 2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "Climate and Energy".

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Validator (V)
- Validator Trainee (T)
- Technical Expert (TE)

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

### Assessment team:

<b>Name</b>	<b>Qualification</b>	<b>Coverage of sectoral scope</b>	<b>Coverage of technical area</b>	<b>Coverage of financial aspect</b>	<b>Host country experience</b>
Nikunj Agarwal	ATL	☑	☑	☑	☑
Praveen Pyata	V	☑	☑	-	☑
Bratin Roy	V	☑	☑	☑	☑
Stephan Hild	--	--	--	--	--
Praveen	T	--	--	--	--



Teckchandani					
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**Technical Reviewers:**

Cathy Wu

## 2.2 Review of Documents

The completed CPA-DD for validation was submitted to the DOE in December 2009. The additional background documents related to the CPA design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done as an initial step of the validation process. A complete list of all documents and evidence material reviewed is attached as Annex 2 to this report.

## 2.3 Follow-up Interviews

During the period 15-02-2010 to 19-02-2010, TÜV SÜD performed interviews and physical site inspections with project stakeholders to confirm relevant information, and to resolve issues identified in the document review. The following table provides a list of all key persons interviewed in this process.

Name	Organisation
Paul Butarbutar	PT. Composting Program International (PT.CPI)
Francois Beaurain	South Pole Carbon Asset Management Ltd.
Henricus Hutabarat	South Pole Carbon Asset Management Ltd.
Alin Pratidina	PT. Composting Program International (PT.CPI)
Pardamean Siahaan	PT Fetty Mina Jaya

## 2.4 Cross-check

During the validation process the team has made reference to available information related to similar projects or technologies as described in the CPA-DD. Project documentation has also been reviewed against the approved methodology/ies applied to confirm the appropriateness of formulae and correctness of calculations.

## 2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which need to be clarified for TÜV SÜD's conclusion on the CPA design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the managing entity and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in the validation protocol in Annex 1.

The final CPA-DD version-04 that was submitted in August 2011 serves as the basis for the final assessment presented herewith. Additional changes to the project during the validation process are not considered to be significant with respect to the main CDM objectives. The two CDM main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country



## **2.6 Internal Quality Control**

Internal quality control is the final step of the validation process and is conducted by the CB “Climate and Energy” who checks the final documentation, which includes the validation report and annexes. The completion of the quality control indicates that each report submitted has been approved either by the head of the CB or the deputy. In projects where either the Head of the CB or his/her deputy is part of the assessment team, the approval is given by the one not serving on the project team.

After confirmation by the Managing Entity, the validation opinion and relevant documents are submitted for inclusion under the PoA to the CDM-EB via uploading it through the UNFCCC CDM web platform.

### 3 SUMMARY

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2.

#### 3.1 CPA Design Document

The CPA-DD is in compliant with relevant form and guidance as provided by UNFCCC.

TÜV SÜD considers that the guidelines for the completion of the CPA documents in their most recent version have been followed. Relevant information was provided by the Managing Entity and the CPA Implementers in the applicable CPA-DD sections. Completeness was assessed through the protocol included in Annex 1.

#### 3.2 CPA Description

The following description of the CDM programme activity as per CPA-DD was verified:

The project is developed under the Small-Scale Programme of Activities (PoA) titled “ Composting and Co-composting Programme of Activities (PoA) in Indonesia”.

The CPA implementer is PT. Fetty Mina Jaya [9, 16, 17, 20, 23].

The CPA involves implementation of waste management measure at PT. Fetty Mina Jaya a Palm Oil Mill in Indonesia. The measure consists of co-treating of Palm Oil Mill Effluent (POME) and Empty Fruit Bunch (EFB) waste using aerobic “co-composting” process. The POME would otherwise have been treated in an anaerobic wastewater treatment system without biogas recovery while the EFB would have otherwise been left to decay anaerobically in a solid waste disposal site (SWDS) [16, 31, 34, 56]. Methane emissions occurred due to the earlier method of handling POME and EFB in anaerobic lagoons and SWDS respectively, this is in the absence of project activity. Both the anaerobic lagoons and SWDS are situated in the oil palm plantation area. The compost produced out of each CPA will be used in the neighboring plantation or sold out in the market. In both the cases compost is disposed in aerobic conditions for soil application therefore it also contributes to reduce the mineral fertilizer consumption eventually.

The project implementation schedule provided in the CPA-DD has been checked by the validation team against submitted documentary evidence and interviews [17, 18, 19, 20, 21, 22, 23, 42, 45, 46, 52].

The CPA is expected to result in an average annual emission reduction of **22,416 tCO<sub>2</sub>e**.

The CPA does not receives any public funding [30]. The starting date of the CPA is 6<sup>th</sup> March 2009 based on the date when PT Fetty Mina Jaya signed contract with technology provider and Engineering Procurement and Construction (EPC) contractor [25]. The length of the renewable crediting period for this CPA is 7 years.

As per EB 54, Annex 13, considering the activity implementer or managing entity of CPA the project is not a de-bundled component. The audit team has assessed from UNFCCC website and on-site interviews that there is no other similar PoA or CDM project occurring in the CPA area.

The information presented in the CPA documents is consistent with the actual planning and implementation of the activity confirmed in the following ways:

- A review and cross check of data and information (see annex 2).

- An on-site visit with relevant stakeholder and personnel with knowledge of the project in attendance. In case of doubt, further cross checks through additional interviews were conducted.
- A review of information related to similar projects or technologies which have been used if available to validate the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the CPA project description is sufficiently accurate and complete in order to comply with the requirements of the PoA.

### 3.2.1 CPA boundary

The CPA boundary was assessed considering information gathered from the physical site inspection, interviews, and secondary evidence received on the design of the CPA.

The project boundary is the physical, geographical location of each of the CPA complying with the following:

- (a) SWDS where the EFB would have been disposed causing methane emission in the absence of the CPA
- (b) Anaerobic lagoon systems where the POME would have been treated in the absence of the CPA causing methane emission in the absence of the CPA
- (c) Location where the treatment of biomass through composting takes place;
- (d) Location where the soil application of the produced compost takes place;
- (e) And the itineraries between (a), (b), (c) and (d), where the transportation of the waste, wastewater or compost occurs.

The sources and gases within the boundary have been considered in a clear manner.

TÜV SÜD confirms that the identified boundary, the selected sources, and gases as documented in the CPA-DD are justified for the CPA and are fully in line with the requirements set by the applied methodology.

### 3.3 Eligibility Criteria

All the eligibility criteria required for the inclusion of the CPA under the PoA have been addressed in the CPA-DD. The stated confirmation against each eligibility criteria has been checked and found acceptable. See Annex-1 (Table 1 &2).

1. CPA is located in Indonesia
2. No composting or co-composting activity took place before at the CPA location
3. The requirements including applicability criteria of AMS-III.F version 8, will be met
4. CPA owner signed agreement with PT.CPI (CME) prior to inclusion
5. SWDS shall has a capacity to accommodate EFB for the crediting period
6. POME is earlier treated in anaerobic lagoons without biogas recovery
7. No other material except EFB & POME will be composted in CPA
8. There is no regulation in Indonesia that prevents use of SWDS and anaerobic lagoons at the time of CPA inclusion.
9. Final product of composting or co-composting will be disposed aerobically
10. Source of the raw material is no farther than 200 km from CPA location
11. CPA complies with all (updated) laws and regulations of Indonesia

12. No double counting occurs due to being part of another registered CDM project, bundled CDM project or another POA,.
13. Applicability of EB 54 Annex 13 “Guidelines on assessment of debundling for SSC project activities” will be demonstrated.

In conclusion, TÜV SÜD confirms that the CPA complies with the eligibility criteria requirements of the PoA.

### 3.4 Additionality

#### 3.4.1 Prior consideration of the clean development mechanism

The starting date of the CPA is 6<sup>th</sup> March 2009 based on the date when PT Fety Mina Jaya signed contract with technology provider and EPC contractor [25] when the CPA implementer committed to significant expenditures to develop the CPA. For the same project PT Fety Mina Jaya -composting project has applied for validation (as a non POA small scale CDM project) in 2007 (much earlier to 02<sup>nd</sup> August 2008) and has withdrawn from validation on 16<sup>th</sup> October 2008. A list with all CPAs with the starting date between 22 June 2007 and commencement of validation of the PoA have been sent to DOE and UNFCCC secretariat before 31/01/2010. Therefore according to guidelines for demonstration and assessment of prior consideration of the CDM (EB 49, Annex 22), it can be considered that the CPA implementer has informed the host country DNA and the UNFCCC secretariat about the commencement of the project activity and their intention to seek CDM status. Also within the CPA of the PoA CDM was considered in the decision to proceed with the project activity as demonstrated by signing of the PoA term sheet between Fetty and South Pole on 06<sup>th</sup> November 2008. However a list of chronology of events of CPA which also is in line with the key dates of PoA development, is presented below to demonstrate prior consideration:

- Stakeholder meeting organized by EcoSecurities on 30<sup>th</sup> May 2007 (for earlier validation) [52].
- Indonesian DNA approval for earlier validation on 06<sup>th</sup> March 2008 [21]
- Termination of Fetty Mina co-composting project by EcoSecurities that was under validation with DNV, on 16<sup>th</sup> October 2008 [18].
- PoA term-sheet signed between Fetty Mina Jaya and South Pole on 6<sup>th</sup> November 2008 [20]
- Feasibility Report co-composting was got done on 15<sup>th</sup> December 2008 [17]
- Signed contract with technology provider and contractor on 06<sup>th</sup> March 2009 [25]
- Tripartite Termination Deed by Fetty Mina Jaya (first CPA), EcoSecurities and Swiss Carbon Assets signed on 3<sup>rd</sup> September 2009 [45].
- First co-operation agreement (including ERPA) between CPA implementer and CME signed on 30<sup>th</sup> October 2009 [23].
- CPA documentation is uploaded to the UNFCCC server for public comments on 22<sup>nd</sup> December 2009.
- CPA validation site visit by TUV SUD team from 15<sup>th</sup> to 19<sup>th</sup> February 2010.

Also considering that the validation of the attached PoA started before 31<sup>st</sup> December 2009 therefore the CPAs' with start dates between 22<sup>nd</sup> June 2007 and commencement of validation of PoA (22<sup>th</sup> December 2009), will also be included in the programme as CPAs' (Report of EB 47,



paragraph 72). Therefore it can be confirmed that CPA implemented by PT Fety Mina Jaya meets the requirement of prior consideration of CDM.

### 3.4.2 Additionality of CPA

The additionality of the programme has been demonstrated at the CPA level as informed in section B.3 of the CPA-DD. The approach used in the CPA-DD has been assessed initially through the document review followed by on-site discussions. Finally, the data, rationales, assumptions, justifications, and documentation provided have been verified using local knowledge as well as sectoral and financial expertise.

- The proposed PoA is a voluntary action by the coordinating/managing entity – PT-CPI. Based on the submitted documents and substantiation it is evident that this voluntary coordinated action would not be implemented in the absence of the PoA [8, 9, 10, 15, 16, 17, 18].
- Based on the on-site interviews with PT.CPI and the host country experience of the audit team it is confirmed that the current mode of disposal of EFB and POME is using SWDS and anaerobic lagoons respectively.

As the PoA applies the small scale methodology, therefore the additionality has been demonstrated using the guidance given in ‘Attachment A to Appendix B’ of the “Simplified modalities and procedures for small-scale CDM project activities”. The investment barrier presented in the PoA-DD has been validated as follows:

#### Investment analysis:

The additionality of the CPA has been determined based on benchmark analysis because the project generates financial benefits other than CDM-related income. Project IRR (prior tax) has been chosen as the financial indicator for the analysis and local commercial lending rates as applicable bench mark as per Guidelines of the Assessment of Investment Analysis, version 5. The benchmark adopted appropriately is 13.32% [37] applicable in March 2009 i.e at the time of investment decision. This value has been checked against the source and the suitability for this project can be confirmed from the credibility of the well known bankers in Indonesia, i.e Central Bank of Indonesia. The pre-tax benchmark<sup>1</sup> is chosen from the regional government bank and is lowest compared to any other national/state or commercial banks in Indonesia. Hence it can be confirmed that the benchmark used is adequate for this project.

Key assumptions presented in the financial analysis are given below:

Sl. No	Assumptions	Value	Sources	IRL	Crosscheck
1	Technical life-time	15 years	Confirmation from technology provider	29	Cross-checked with a similar CDM project 3717. Can be accepted.

<sup>1</sup> The local commercial lending rate can be considered as pre-tax benchmark by analysing the Weighted Average Cost of Capital (WACC) formula (<http://www.investopedia.com/terms/w/wacc.asp#axzz1UbWSDBtV>), which is a post-tax benchmark. The WACC consists of two part, equity and debt. Cost of equity is higher then cost of debt, because in the case of bankruptcy, debt holders are repaid before equity holders, therefore decreased risk for debt. While only considering the commercial lending rate as benchmark the debt part only is considered, which is conservative due to the reason above. In the WACC formula, the local commercial lending rate is multiplied by (1-tax rate) to arrive with a post-tax cost of debt. In order to achieve the higher pre-tax value the factor (1-tax rate) has not been considered.

2	Annual compost production	12,000 t/ year	Feasibility report	17	Considered to be higher than 50% of EFB processed. Cross-checked with a similar CDM project 3717. Can be accepted.
3	Compost sale price	285,000 IDR/t	Agreement with compost buyer	26	Cross-checked with a similar CDM project 3717 that shows a selling price of 230,326 IDR/t in September 2008. A 23.7% hike can be acceptable over a period of ½ year.
4	Rate of inflation	6.3 %/ year	Inflation in year 2008	35	-
5	Exchange Rate	11,406,000 IDR	Applicable at investment decision	36	-
6	Investment cost	14,823,375,000 IDR	Feasibility Study	17	Cross-checked with a similar CDM project 3717. Can be acceptable.
7	O & M costs	2,981,240,000 IDR /year	Feasibility Study	17	Cross-checked with a similar CDM project 3717. Can be acceptable.

The DOE has assessed the appropriateness as well as authenticity of assumptions of the input values based on valid sources and third party. Hence the DOE can confirm that the investment analysis of this project is in line with VVM para. 111. Considering the above input values the pretax project IRR of -3.63% is calculated which is below the chosen benchmark.

#### Sensitivity analysis:

The Guidance on assessment of investment analysis requires the robustness of the conclusion arrived at to be proved through a sensitivity analysis by varying the critical as-assumptions to a reasonable variation ( $\pm 10\%$ ). Accordingly the PP's have identified investment cost, O&M cost, amount of compost and sale price of compost as parameters to be subjected for sensitivity analysis.

Parameters	Project IRR (%)	Variation at which project IRR is crossed
Total investment decreased by 10%	-2.58 %	Project IRR is crosses at a reduction of -74%. However such a reduction is not likely due to 1) cost/prices of equipment considered are most conservative in Indonesia 2) between 2000 and 2009 inflation rates in Indonesia have ranged from a low of 3.8% in 2000 to a high of 13.1% in 2006. The same can be confirmed for the audit team's local and sectoral expertise.
O & M decreased by 10%	-1.90%	Project IRR is crosses at a reduction of -42%. However such a reduction is not likely since O& M includes salaries, fuel costs, costs that are market based and prevalence of inflation also will ensure that such a reduction does not occur. The same can be confirmed for the audit team's local and sectoral expertise.



Compost price increased by 10%	2.58%	Project IRR is crosses at a rise of 36%. However such an increase is not likely since currently in Indonesia market based demand for compost is weak and the subsidised chemical fertilizer supply by the host country Government also inhibits such a rise. The same can be confirmed for the audit team's local and sectoral expertise.
Compost production increased by 10%	2.58%	Project IRR is crosses at a rise of 36%. However such an increase is not likely since the Fetty Mina Jaya mills production capacity (of EFB and POME) is sufficient for the optimal operation of co-composting facility. The capacity of compost production is frozen by the machinery supplier hence such an increase can be ruled out. The same can be confirmed for the audit team's local and sectoral expertise.

The IRR does not exceed the benchmark while altering any one of the 4 parameters, hence the CPA can be considered as additional.

The financial calculation has been completely checked, all the calculation files were checked and no mistakes have been found. Hence it can be confirmed that the calculations are correct.

Based on the above, TÜV SÜD confirms the additionality of the CPA.

### 3.5 Emission Reductions

#### 3.5.1 Parameters determined ex-ante

The parameters that are determined ex-ante are:

- The methane generation capacity of the wastewater ( $tCH_4/tCOD$ ) is taken from IPCC default value for domestic wastewater of 0.21 kg  $CH_4/kg.COD$  (corrected for uncertainties).
- Methane correction factor for the POME anaerobic treatment system in the baseline scenario is considered to be 0.8 since the anaerobic lagoon in the baseline wastewater system are more than 2 meters. This was assessed during onsite audit.
- Model correction factor to account for model uncertainties is considered to be 0.9 as per the "Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site" version 5.01.
- Oxidation factor (reflecting the amount of methane from SWDS that is oxidised in the soil or other material covering the waste) 0 is considered for the EFB disposal site. It was assessed during the onsite audit that type of cover of SWDS did not contain oxidizing material such as soil or compost.
- Fraction of methane in the SWDS gas is considered to be 0.5 as per "Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site" version 5.01.
- Fraction of degradable organic carbon (DOC) that can decompose is considered to be 0.5 as per "Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site" version 5.01.
- Methane correction factor for SWDS has been determined as per IPCC 2006 Guidelines for National Greenhouse Gas Inventories, volume 3 – Table 3.1. The value applied is 0.8 since it is an unmanaged SWDS with depth greater than 5 meters. The same was assessed during



onsite audit and crosschecked from historical photographs and official layouts [16 & 34]

- Fraction of degradable organic carbon (by weight) in EFB is considered to be 20 % since it can be categorised under 'garden, yard and park waste'. This follows the "Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site" version 5.01
- Decay rate for the EFB is considered to be 0.17 as per the "Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site" version 5.01, since the EFB characteristics are similar to garden waste and also Indonesia faces tropical climate conditions with MAT > 20°C and MAP > 1000 mm [43].
- CO<sub>2</sub> emission factor from diesel consumption (t.CO<sub>2</sub>/t fuel) is calculated to be 3.185. this is based on i) Emission factor for Gas/Diesel oil: 74.10 tCO<sub>2</sub>/TJ (as per IPCC) and ii) NCV for Gas/Diesel oil: 43.33 TJ/10<sup>3</sup> tonnes (as per IPCC).
- CO<sub>2</sub> emission factor from diesel fuel use due to transportation (t.CO<sub>2</sub>/km) is calculated to be 0.00047. This is based on i) Vehicle Fuel Consumption<sub>n</sub> (volume): 0.175 litres/km and ii) Diesel Density: 0.8425 kg/litre and iii) CO<sub>2</sub> emission factor from fuel use due to transportation: 3.185 kg.CO<sub>2</sub> / kg.fuel. (Data source for i & iii- IPCC; for ii- Pertamina National Oil Company [42]).
- Composting machine efficiency, loader / skidloader (diesel fuel consumption rate per hour) (t.fuel / hour) is calculated to be 0.01146. This is based on 13.6 liter/hour, defined as maximum fuel consumption of loader / skidloader in composting facilities (source- equipment supplier [43]) and Fuel Density: 0.8425 kg/litre. (source- Pertamina National Oil Company[42]).
- Composting machine efficiency, turning machine (diesel fuel consumption rate per hour) (t.fuel / hour) is calculated to be 0.03117. This is based on size of turning machine i.e highest fuel consumption i.e 37 liter/hour for drum width >5-6 meter.
- Carbon emissions factor of electricity supplied to the project by the palm oil mill in year 'y' (tCO<sub>2</sub>e/MWh) will be higher of the three sources 1) Technical specifications on fossil fuel use per energy produced multiplied by IPCC 2006 default emission factor, 2) Default IPCC 2006 default emission factor on diesel fuelled stationary combustion applying a conservative generator efficiency of 30% (IPCC chapter 2, page 2.16 ff.) 3. Emission factor listed in Table I.D.1 of the methodology AMS I.D. and 4) Grid emissions factor relevant to the palm oil mill operation (if grid connection is available).
- Emission factor for composting of organic waste (kg CH<sub>4</sub>/ton waste) value is considered to be 4 based on assumption of EFB as wet waste as per methodology.
- Model correction factor to account for model uncertainties of POME is considered to be 0.94 as per AMS III.F version 8 reference: FCCC/SBSTA/2003/10/Add.2, page 25.
- Model correction factor to account for model uncertainties of runoff water is considered to be 1.06 as per AMS III.F version 8 reference: FCCC/SBSTA/2003/10/Add.2, page 25.
- Global warming potential (GWP) of methane, valid for the relevant commitment period (tCO<sub>2</sub>e/tCH<sub>4</sub>) is fixed to be 21 as per IPCC.

TUV SUD has validated the correctness of all applied IPCC, Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site and applied methodology values

In summary, the parameters determined ex-ante has been presented correctly according to requirements.

### 3.5.2 Emission reduction calculations

The procedures provided in the methodology are correctly depicted in the CPA-DD. The emission reductions would be calculated using the following formula 8 of the methodology AMS.III.F.

Yearly methane generation potential for the solid waste composted by the CPA will be calculated using “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” version 5.01. Calculation of methane emission potential of co-composted POME will follow paragraph 8 of AMS.III.F / Version 08.

Project emissions are considered for the 1) CO<sub>2</sub> from incremental transport distance, 2) CO<sub>2</sub> from electricity and fossil fuel consumption, and 3) CH<sub>4</sub> from runoff water.

No leakage emissions will be considered since only projects using new equipments are eligible to the PoA. None of the composting equipments were transferred from or to another project activity and the current CPA is a completely new facility.

The formulae are correctly presented for the determination of emission reductions.

TÜV SÜD has assessed the calculations of emission reductions. Corresponding calculations have been carried out based on calculation spreadsheets. The parameters and equations presented in the CPA-DD, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has been made to ensure consistency between all the formulae presented in the CPA-DD, calculation files, methodology AMS.III.F / Version 08 and the “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” version 5.01.

The assumptions and data used to determine the emission reductions are listed in the PoA-DD and all the sources have been checked.

Based on the information reviewed it is confirmed that the sources used are correctly quoted and interpreted in the CPA-DD.

In accordance with para 92 (e) of VVM 1.2, the calculation spreadsheets and the emission reductions can be replicated using the data and parameter values provided in the design documents.

In summary, the calculation of emission reductions are considered correct and the baseline methodology has been applied correctly according to requirements.

### 3.6 Monitoring Plan

The monitoring plan presented in the CPA-DD complies with the requirements of the PoA. The assessment team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the CPA implementer. Specifically; these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. Therefore, the CPA implementer will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

The parameters that are to be monitored ex-post are:

- Total amount of raw EFB treated/ prevented from disposal in year ‘y’ (t). The parameter will be monitored each truck wise using weighbridge before entry into the composting yard. The

- weighbridge will be calibrated annually as per the manufacturer. The value used for ex-ante calculation of BE i.e 23,491 has been validated from Feasibility Report [17].
- Flow rate of POME into the composting facility ( $\text{m}^3 / \text{year}$ ). The parameter will be measured daily by a cumulative flow meter located at inlet of POME storage pond meant for composting use. The flow meter will be calibrated annually as per the manufacturer. The value used for ex-ante calculation of BE i.e 69,404 has been validated from Feasibility Report [17].
  - Concentration of organic material in POME entering the composting facility ( $\text{t} / \text{m}^3$ ). COD measurement will be done monthly by an accredited third party and representative sampling as per the methodology will be ensured. The value used for ex-ante calculation of BE i.e 0.05176 is calculated based on a 10 day COD measurement campaign by an accredited third party laboratory as per methodology [10]
  - Volume of runoff water from the co-composting plant ( $\text{m}^3$ ). The parameter will be measured daily by a cumulative flow meter located at outlet of compost yard before aerobic pond. The flow meter will be calibrated annually as per the manufacturer. When flow meter is sent for maintenance the flow will be recorded from 3 months historic data. The value used for ex-ante calculation of PE i.e 694 has been validated from Feasibility Report [17].
  - Concentration of organic material in runoff water from the composting facility ( $\text{t} / \text{m}^3$ ). COD measurement will be done monthly by an accredited third party and representative sampling as per the methodology will be ensured. The value used for ex-ante calculation of PE i.e 0.05176 is calculated based on a 10 day COD measurement campaign by an accredited third party laboratory as per methodology [10]
  - Quantity of final compost produced in year 'y' (t). The parameter will be monitored each truck wise using weighbridge before exit from the composting yard. The weighbridge will be calibrated annually as per the manufacturer. The value used for ex-ante calculation i.e 11,745 has been validated from Feasibility Report [17].
  - Total capacity of auxiliary equipment installed in the project activity (MW). The value used for ex-ante calculation of PE i.e 0 has been validated from Feasibility Report [17].
  - Operating hours of composting plant when biomass power plant is out of operation (hour/year). The value used for ex-ante calculation of PE i.e 0 has been validated from Feasibility Report [17].
  - Annual operating hours of skid-loader machine (hour/year). The value used for ex-ante calculation of PE i.e 2000 has been validated from Feasibility Report [17].
  - Annual operating hours of turning machine (hour/year). The value used for ex-ante calculation of PE i.e 2000 has been validated from Feasibility Report [17].
  - Average incremental distance for composting transportation (Km/truck). The value used for ex-ante calculation of PE i.e 100 has been validated from Feasibility Report [17].
  - Average truck capacity for compost transportation (t/truck). The value used for ex-ante calculation of PE i.e 8 has been validated from Feasibility Report [17].
  - Percentage of oxygen content in the compost (%) will be measured using a hand held  $\text{O}_2$  meter sampling will be conducted to ensure a maximum margin of error of 10% at a 95% confidence level. The meter will be calibrated annually as per manufacturers' specifications.
  - Proper soil application of the compost to ensure aerobic conditions for further decay
  - Quantity of methane that would have to be captured and combusted to comply with the prevailing regulations (tonnes of  $\text{CH}_4 / \text{year}$ )

- Fraction of methane captured at the SWDS and flared, combusted or used in another manner (%)
- Calculation of yearly methane generation potential of the solid waste composted by the project during the years “x” from the beginning of the project activity (x=1) up to the year ‘y’ (tCO<sub>2</sub>/year)
- Calculation of methane emission potential in the year ‘y’ of the wastewater co-composted. (tCO<sub>2</sub>/year).
- Quality Control Program to the composting work will include 1) Turning of the material every 2 days and 2) Regular check of the compost quality leaving the composting facility.

### 3.7 Stakeholder Consultation

The local stakeholder consultation was done at the SSC-CPA level on 30 May 2007 within the Fetty Mina Jaya premises. The meeting was attended by 23 representatives of local stakeholders consisting of local authorities, organizations and palm-oil farmers. Since each composting project is considered to have specific local impacts the choice is justified. The stakeholder consultation will be implemented in all CPA's of Indonesia as per CDM Project Approval Mechanism of Indonesian CDM National Commission [54].

The relevant local stakeholders concerned with a CPA have been invited through invitation letter [42]. The summary of the stakeholder meeting is compiled in the CPA-DD. The assessment team has reviewed the documentation in order to validate the inclusion of relevant stakeholders [52]. Team local expertise has confirmed that the communication method that was used to invite the stakeholders is appropriate.

Comments presented by the local stakeholders were taken into account by the CME at CPA level.

Hence, the local stakeholder consultation was performed adequately at CPA level according to the CDM requirements.

### 3.8 Environmental Analysis

The environmental analysis has been done at the CPA level. However there are no host country requirements for EIA for this kind of CPA– implementing co-composting for EFB and POME in Palm Oil Mills [10]. It has been clarified in CPA-DD that there would be no significant negative environmental impacts specific to CPA. In addition it was verified that the CPA owner already complies with liquid waste and air pollution control regulations of Minister for Environment of Indonesia [8, 11].

#### 4 VALIDATION OPINION

TÜV SÜD has performed a validation of the following CPA-DD:

**Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia**

for inclusion under the PoA titled:

**Composting and Co-composting Programme of Activities (PoA) in Indonesia**

Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol for the CPA has been prepared to conduct the audit in a transparent and comprehensive manner.

The review of the CPA-DD, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In the opinion of TÜV SÜD, the CPA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the CPA project for inclusion under the PoA.

An analysis, as provided by the applied methodology, demonstrates that the proposed CPA is not a likely baseline scenario. Emission reductions attributable to the CPA are additional to any that would occur in the absence of the project activity. Considering that the project will be implemented as designed, the project is likely to achieve the estimated amount of annual emission reductions of 22,416 tCO<sub>2e</sub> and a total estimated of 156,910 tCO<sub>2e</sub> as specified within the final CPA-DD version.

The validation has been performed following the requirements of the latest version of the CDM VVM and on the basis of the contractual agreement. The single purpose of this report is its use during the registration process as part of the CDM project cycle.

Munich, 10-08-2011

Munich, 10-08-2011



Thomas Kleiser

Nikunj Agarwal

Certification Body "Climate and Energy"  
TÜV SÜD Industrie Service GmbH

Assessment Team Leader

Validation of the CPA:  
Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting  
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## **Annex 1: Validation Protocol**

## Validation Protocol CDM-SSC-CPA-DD

CPA Title: Fetty Mina Jaya o-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia

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**Table 1 Conformity of CDM Programme Activity (CPA)**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
<b>A. General description of small-scale CDM programme activity (CPA)</b>				
<b>A.1. Title of the small-scale CPA:</b>				
A.1.1. Does the used CPA title clearly enable to identify the unique CDM programme activity?	2, 58	Yes, the CPA title is clearly indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indications concerning the revision number and the date of the revision?	2, 58	Yes, the GSP-CPA-DD is indicated version number 01, dated 01-12-2009. The final version PoA-DD is indicated version number 04, dated 09/08/2011.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the programme's history?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2. Description of the small-scale CPA:</b>				
A.2.1. Is the description delivering a transparent overview of the CPA?	15, 16, 17, 18	<b>Clarification Request No. 1.</b> Please provide all relevant documentary evidences for values quoted and footnotes mentioned in section A.2 of CPA-DD. Further, please include a brief detail on usage of generated compost in section A.2.	CR	<input checked="" type="checkbox"/>
A.2.1.1. Is it unambiguously stated which technology or measures are to be employed by the SSC-CPA?	15, 16, 17, 18	Yes, it has been clearly presented that the Composting and Co-composting would be done to avoid the methane generation from its anaerobic decomposition during baseline scenario  Please refer to CR 1 above	CR	<input checked="" type="checkbox"/>
A.2.1.2. Are the eligibility criteria for the inclusion of a SSC-CPA into the PoA being met?	15, 16, 17, 18	Please refer to CR1 above	CR	<input checked="" type="checkbox"/>
A.2.1.3. Does the technical design of the	28,	It is understood that the composting plant would avoid methane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
programme activity reflect current good practices?	29, 51	generation from EFB and POME anaerobic decomposition		
A.2.1.4. Is a schedule available for the implementation of the programme and are there any risks for delays?	55	<b><u>Corrective Action Request No.1.</u></b> Please include the schedule for implementation of project activity in the CPA-DD and provide documentary evidence for the same.	CAR	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the programme description is in compliance with the actual situation or planning?	17, 18, 19, 20,	<b><u>Clarification Request No. 2.</u></b> Please submit the cooperation agreement between PT. Fetty Mina Jaya and the managing entity, and any other documents to substantiate that the programme description is in compliance with the actual situation or planning.	CR	<input checked="" type="checkbox"/>
A.2.3. Is the information provided by these proofs consistent with the information provided by the CPA-DD and the PoA-DD?	21, 22, 23,	Please refer to A.2.2.	CR	<input checked="" type="checkbox"/>
A.2.4. Is all information presented consistent with details provided by further chapters of the CPA-DD and the PoA-DD?	42, 45, 46, 52	Yes it is consistent Further, please refer to CAR1 and CR2	CAR, CR	<input checked="" type="checkbox"/>
<b>A.3. Entity/individual responsible for the small scale CPA:</b>				
A.3.1. Does it become evident which entity/individual is responsible for the CPA (the CPA implementer)?	9, 20, 23	In the GSP CPA-DD, it has been indicated that PT. Fetty Mina Jaya will act as the CPA Implementer.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is there any document substantiating that the stated entity/individual is responsible for the implementation of the CPA?	9, 20, 23	<b><u>Clarification Request No. 3.</u></b> Please provide documentary evidence (ownership, licenses, contracts etc.) to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA.	CR	<input checked="" type="checkbox"/>
A.3.3. Is all information on the CPA implementer provided in consistency with details provided by further chapters of the CPA-DD	9, 20,	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
(in particular annex 1)?	23			
A.3.4. Is the CPA implementer project participant of the PoA and if so, is its name correctly stated in the PoA-DD?	9, 20, 23	NA, as the CPA implementer is not the project participant of the PoA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4. Technical description of the small-scale CPA:</b>				
<i>A.4.1. Identification of the small scale CPA:</i>				
A.4.1.1. Is the Host Party stated and consistent with the information provided in the PoA-DD?	2, 58	Yes, Republic of Indonesia has been indicated as the host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.1.2. Does the information provided on the location of the programme activity allow for a unique identification of the location and the boundary of the CPA in terms of the geographical area?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.1.3. Are the geographic reference and the means of identification transparent and clear? Is GPS data provided?	2, 58	Yes, Geographical coordinates of the CPA has been included in the CPA-DD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.1.4. How is it ensured and/or demonstrated, that the project proponents can implement the project (ownership, licenses, contracts etc.)?	2, 58	Please refer CR 3 <b><u>Corrective Action Request No.2.</u></b> Please include the technical description of the CPA in section A.4. Technical details should include the installed capacity of compost plant and technology used in composting plant. Also submit supplier documents/ manual to confirm the same to the DOE.	CR, CAR	<input checked="" type="checkbox"/>
<i>A.4.2. Duration of the small scale CPA:Description of a typical small-scale CDM programme activity (CPA)</i>				
A.4.2.1. Is the starting date of the small scale CPA provided?	25	The start date has been indicated as 6 <sup>th</sup> March 2009 based on the contract date with technology supplier.	CR	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		Please refer to section B.3.1		
A.4.2.2. Is the starting date consistent with the PoA timeline and the requirements of the PoA procedures (Procedures para 5d, considering exception according to EB47, meeting report, para 72)?	25, 55	As the PoA validation has started before 31 <sup>st</sup> December 2009 and the indicated start date of the CPA is after 22 <sup>nd</sup> June 2007, therefore it can be considered consistent with the PoA timeline and the requirements of the PoA procedures (EB 47 meeting report, Para 72)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.3. Is the operational lifetime of the small scale CPA clearly defined and plausible?	25	Yes, the operational lifetime has been clearly defined <b>Clarification Request No. 4.</b> Please submit the documentary evidence to validate the operational lifetime mentioned in the CPA-DD.	CR	<input checked="" type="checkbox"/>
<b>A.4.3. Choice of the crediting period and related information:</b>				
A.4.3.1. Is the starting date of the crediting period stated and plausible (in accordance with the PoA procedures)?	2, 58	The start date has been indicated as 01 <sup>st</sup> March 2010. <b>Corrective Action Request No.3.</b> The starting date of the crediting period, 1 <sup>st</sup> March 2010, is not realistic and plausible. Please correct the same.	CAR	<input checked="" type="checkbox"/>
A.4.3.2. Is it evident that fixed crediting period is chosen, what is the length of the crediting period?	2, 58	Renewable crediting period has been chosen and the same has been indicated in CPA-DD ( 7 years)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.4. Estimated amount of emission reductions over the crediting period:</b>				
A.4.4.1. Estimated amount of emission reductions stated?	2, 58	Yes it has been stated in CPA-DD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.2. Is the estimated amount consistent with section B 5 of the CPA-DD?	2, 58	Yes it is consistent	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.5. Public funding of the small-scale programme activity</b>				

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning?	30	It has been indicated that no public funding will be used. <b>Clarification Request No. 5.</b> Please provide information on project financing plan.	CR	<input checked="" type="checkbox"/>
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the CPA-DD (in particular annex 2)?	30	The information is consistent within the CPA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.6. Information to confirm that the proposed small scale CPA is not a de-bundled component (considering PoA-de-bundling guidance):</b>				
A.4.6.1. Is there a system or procedure to detect whether a SSC-CPA to be included in the PoA is not a de-bundled component of another CPA or CDM project?	2, 3, 58	<b>Clarification Request No. 6.</b> Please use the latest guidance for de-bundling check (EB 47 annex 32). Further, please provide us the contractual agreement between PT. Fetty Mina Jaya and Managing entity, as stated in section A.4.4.1 of PoA-DD to ensure de-bundling issues	CR	<input checked="" type="checkbox"/>
A.4.6.2. Are all PoAs considered which are in the same geographical area and use the same methodology?	2, 3, 58	Please refer to A.4.6.1	CR	<input checked="" type="checkbox"/>
A.4.6.3. Is there a registered CDM project or another CPA (either registered or in the state of application) which has the same activity implemented or has a coordinating/managing entity which also manages a large scale PoA of the same scope and the boundary is within 1 km of the boundary of the proposed CPA?	2, 3, 58	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.6.4. Is the information on registered CDM projects or other CPAs transparent, understandable and substantiated by documents?	2, 3, 58	Please refer to A.4.6.1	CR	<input checked="" type="checkbox"/>
A.4.6.5. If the proposed CPA is deemed to be a de-bundled component but the size of	2, 3,	Not applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
both activities combined does not exceed the SSC threshold, is this statement provided in a transparent und substantiated manner?	58			
<b>A.4.7. Confirmation that the SSC CPA is neither registered as an individual CDM project activity or is part of another registered PoA</b>				
A.4.7.1. Confirmation provided by coordinating/managing entity or CPA implementer?	2, 3, 58	Yes, the confirmation has been provided by the CPA implementer.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B. Eligibility of the small scale CPA and estimation of emission reductions:</b>				
<b>B.1. Title and reference of the registered PoA to which the small scale CPA is added:</b>				
B.1.1. Are the title and reference correctly provided?	2, 58	Yes, the CPA correctly refers to the “Composting and Co-composting Programme of Activities (PoA) in Indonesia”.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.2. Justification of why the small-scale CPA is eligible to be included in the registered PoA:</b>				
B.2.1. Are all criteria as per PoA-DD addressed?	2, 4, 58	<p><b><u>Corrective Action Request No.4.</u></b> Please discuss all the applicability criteria of AMS-III.F ver 8 in CPA-DD (section B.2)</p> <p><b><u>Clarification Request No. 7.</u></b> Please provide some documentary evidence to substantiate that Fetty Jaya Palm oil mill started its operations in 2006. Also provide us the cooperation agreement with PT.CPI as discussed in section B.2.</p> <p><b><u>Clarification Request No. 8.</u></b> As per eligibility criteria (i), project should be a newly developed co-composting plant, therefore please provide some documentary evidences to justify that EFB and POME were not co-composted before the implementation of the project activity and were anaerobically decomposed in the baseline scenario.</p> <p><b><u>Clarification Request No. 9.</u></b></p>	CR, CAR	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		Please clarify how it can be verified that the processed FFB is coming from plantations before 22 <sup>nd</sup> November'07 (The date when the Roundtable on Sustainable Palm Oil (RSPO) was launched ( <a href="http://www.rspo.org">www.rspo.org</a> )) and provide the necessary documents to support the same.		
B.2.2. Are all eligibility criteria met regarding the proposed CPA?	2, 4, 58	Please refer CAR and CR above.	CR, CAR	<input checked="" type="checkbox"/>
B.2.3. Are the statements substantiated by credible documents?	2, 4, 58	Please refer CAR and CR above.	CR, CAR	<input checked="" type="checkbox"/>
<b>B.3. Assessment and demonstration of additionality of the SSC CPA, as per eligibility criteria listed in the registered PoA:</b>				
B.3.1. Are the key criteria and data for assessing additionality of a SSC-CPA that are included into the PoA addressed?	17, 18, 19, 20, 23, 25, 26, 27, 28, 29, 35, 36, 37, 38, 39, 40, 45, 51	<p><b><u>Clarification Request No. 10.</u></b> Please mention in section B.3 of CPA-DD template and CPA-DD which approach is followed to prove additionality. As per footnote 5 of CPA-DD, version 1 of "Guidance on the demonstration and assessment of prior consideration of the CDM" is used. Please use the latest version (EB 49, Annex 22) for proving prior consideration of CDM.</p> <p><b><u>Clarification Request No. 11.</u></b> Please provide us all the documentary evidences corresponding to timeline (table 2) mentioned in CPA-DD for prior consideration.</p> <p><b><u>Clarification Request No. 12.</u></b> As per the stated baseline scenario, implementation of project activity would avoid anaerobic treatment of POME and EFB, thereby avoiding some operational and management expenses. Please clarify why this parameter has not been taken into consideration as an income source</p> <p><b><u>Corrective Action Request No.5.</u></b> As per project description in section A.2 of CPA-DD, the FFB production is 217,800 TPA (=30*22*330), hence the corresponding</p>	CR	<input checked="" type="checkbox"/>

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		compost would be 23,958 TPA (22%*50%*217800). However investment analysis assumes 11,224 TPA for computation, please use the output capacity of compost plant (23,958 TPA) for investment analysis.																	
B.3.2. Are the key criteria and data for assessing additionality of a SSC-CPA that are included into the PoA met?	See above	<p>Please refer to CR10 &amp; CR 12</p> <p><b>Clarification Request No. 13.</b> Please justify how the beta values taken “agriculture biotech for emerging market” is appropriate and relevant to the project activity</p> <p><b>Clarification Request No. 14.</b> Please provide us the documentary evidences for all the input parameters for investment analysis</p>	CR, CAR	<input checked="" type="checkbox"/>															
B.3.3. If the starting date of the CPA is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the programme activity?	See above	Please refer to section B.3.1	CR	<input checked="" type="checkbox"/>															
B.3.4. Does it become evident how these criteria were applied to assess the additionality of the CPA?	See above	The description of barriers as demonstrated at the PoA for assessing additionality has been reproduced at the CPA level including the assessment and check of the presented barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
B.3.5. Does this list include at least one of the following barriers?	See above	<table border="1"> <thead> <tr> <th>Barrier</th> <th>Discussed?</th> <th>Verifiable?</th> </tr> </thead> <tbody> <tr> <td>Investment</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Technological</td> <td>No</td> <td>NA</td> </tr> <tr> <td>Due to prevailing practice</td> <td>No</td> <td>NA</td> </tr> <tr> <td>Other</td> <td>No</td> <td>NA</td> </tr> </tbody> </table> <p>Please refer to CR 11,12, 13 above</p>	Barrier	Discussed?	Verifiable?	Investment	Yes	No	Technological	No	NA	Due to prevailing practice	No	NA	Other	No	NA	CR	<input checked="" type="checkbox"/>
Barrier	Discussed?	Verifiable?																	
Investment	Yes	No																	
Technological	No	NA																	
Due to prevailing practice	No	NA																	
Other	No	NA																	

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B.3.6.	Does the discussion sufficiently take into account relevant national and/or sectoral policies?	See above	<b>Corrective Action Request No.6.</b> Please include a statement and discuss about the relevant national and sectoral policies in CPA-DD template	CAR	<input checked="" type="checkbox"/>												
B.3.7.	Is transparent and documented evidence provided on the existence and significance of these barriers?	See above	Please refer B.3.5	CR	<input checked="" type="checkbox"/>												
B.3.8.	Is it appropriately explained how the approval of the programme activity will help to overcome the identified barriers?	See above	Please refer B.3.5	CR	<input checked="" type="checkbox"/>												
<b>B.4. Description of the sources and gases included in the project boundary and proof that the small scale CPA is located within the geographical boundary of the registered PoA</b>																	
B.4.1.	Does the project boundary include the physical, geographical site with all 5 of these items (a, b, c, d, and e)?	16, 31, 34	<table border="1"> <thead> <tr> <th>Project boundary checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>(a) where the solid waste would have been disposed and the methane emission occurs in absence of the proposed project activity</td> <td>Yes</td> </tr> <tr> <td>(b) in the case of projects co-composting wastewater, where the co-composting wastewater would have been treated anaerobically in the absence of the project activity</td> <td>Yes</td> </tr> <tr> <td>(c) where the treatment of biomass through composting takes place</td> <td>Yes</td> </tr> <tr> <td>(d) where the soil application of the produced compost takes place</td> <td>Yes</td> </tr> <tr> <td>(e) and the itineraries between them (a, b, c and d), where the transportation of waste, wastewater or compost occurs.</td> <td>Yes</td> </tr> </tbody> </table>	Project boundary checklist	Yes / No / NA	(a) where the solid waste would have been disposed and the methane emission occurs in absence of the proposed project activity	Yes	(b) in the case of projects co-composting wastewater, where the co-composting wastewater would have been treated anaerobically in the absence of the project activity	Yes	(c) where the treatment of biomass through composting takes place	Yes	(d) where the soil application of the produced compost takes place	Yes	(e) and the itineraries between them (a, b, c and d), where the transportation of waste, wastewater or compost occurs.	Yes	CAR	<input checked="" type="checkbox"/>
Project boundary checklist	Yes / No / NA																
(a) where the solid waste would have been disposed and the methane emission occurs in absence of the proposed project activity	Yes																
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(e) and the itineraries between them (a, b, c and d), where the transportation of waste, wastewater or compost occurs.	Yes																

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		<p><b><u>Corrective Action Request No.7.</u></b> Please discuss and include a schematic figure showing the project boundary in section B.4 of CPA-DD.</p> <p><b><u>Corrective Action Request No.8.</u></b> Please include methane emissions from composting process as the source of emission. Also please include CO<sub>2</sub> emissions from electricity consumption as an emission source in table 6 of CPA-DD</p>		
B.4.2. Is there any proof that the CPA is located within the geographical boundary of the registered PoA?	16, 31, 34	Please refer to A.3.2	CR	<input checked="" type="checkbox"/>
B.4.3. Are all sources and gases within the boundary considered in a clear manner?	16, 31, 34	Please refer to B.4.1	CAR	<input checked="" type="checkbox"/>
B.4.4. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD or CPA-DD?	16, 31, 34	Please refer to B.4.1	CAR	<input checked="" type="checkbox"/>
<b>B.5. Emission reductions:</b>				
<i>B.5.1. Data and parameters that are available at validation:</i>				
B.5.1.1. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA, completely presented?	2, 4, 5, 6, 7, 58	Yes all the equations have been included in section B.5.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.1.2. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	2, 4, 5, 6, 7, 58	Yes the CPA-DD contains all the parameters with regards to requirements of the applied methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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B.5.1.3.Comment on any line answered with “No”					
B.5.1.3.1. Parameter Title: MD <sub>y,reg</sub> – Amount of methane that would have to be captured and combusted in the year y to comply with the prevailing regulations (tonne)	2, 4, 5, 6, 7, 58	Data Checklist	Yes / No / NA	CAR	<input checked="" type="checkbox"/>
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		
		Correct value provided?	Yes		
		Has this value been verified?	No		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		<b>Corrective Action Request No.9.</b>			
Please justify the value assumed for MD <sub>y,reg</sub> with some evidence					
B.5.1.3.2. f - Fraction of methane captured at the SWDS and flared, combusted or used in another manner	2, 4, 5, 6, 7, 58	Data Checklist	Yes / No / NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		B.5.1.3.3. GWP <sub>ch4</sub> – Global warming potential of methane	2, 4, 5, 6, 7, 58		
Title in line with methodology?	Yes				
Data unit correctly expressed?	Yes				
Appropriate description of parameter?	Yes				
Source clearly referenced?	Yes				
Correct value provided?	Yes				

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		<table border="1"> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA														
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.4. $MCF_{ww,treatment}$ - Methane correction factor for the wastewater treatment system in the baseline scenario	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>No</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table> <p><b>Clarification Request No. 15.</b> Please provide some evidences for proving the lagoons at baseline scenario for waste water treatment to be more than 2 m</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	No	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	CR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	No																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.5. $Bo_{ww}$ – Methane producing capacity for the treated water	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
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Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.6. Parameter Title:	2, 4,		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		

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$\Phi$ – Model correction factor to account for model uncertainties	5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA		
Data Checklist	Yes / No / NA																					
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Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.7. Parameter Title: OX– Oxidation factor (reflecting the amount of methane from SWDS that is oxidised in the soil or other material covering the waste)	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
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Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.8. Parameter Title: F– Fraction of methane in the SWDS gas (volume fraction)	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
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Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.9. Parameter Title: DOC <sub>r</sub> – Fraction of degradable organic carbon (DOC) that can decompose	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.10. Parameter Title: MCF – Methane correction Factor	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>NA</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table> <p><b>Clarification Request No. 16.</b> Please provide some documents to prove that the EFB was dumped</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	NA	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
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		at disposal site having depth more than 5 meters and/or high water table near ground level																				
B.5.1.3.11. DOC <sub>j</sub> - Fraction of degradable organic carbon (by weight) in the waste type j	2, 4, 5, 6, 7, 58	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </tbody> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.12. K <sub>j</sub> - Decay rate for the waste type j	2, 4, 5, 6, 7, 58	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>No</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </tbody> </table> <p><b>Clarification Request No. 17.</b> Please submit documents mentioned in footnote 8 to substantiate the choice of value for K<sub>j</sub></p>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	No	Measurement method correctly described?	NA	CR	<input checked="" type="checkbox"/>
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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final																		
B.5.1.3.13. $EF_{fuel}$ - CO2 emission factor from diesel use	2, 4, 5, 6, 7, 58	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </tbody> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.14. $EF_{CO2}$ - CO2 emission factor from diesel fuel use due to transportation	2, 4, 5, 6, 7, 58	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </tbody> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.15. $UF_{b,baseline}$ - Model correction factor to account for model uncertainties of co-composted wastewater	2, 4, 5, 6, 7, 58	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> </tbody> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	No	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	CAR	<input checked="" type="checkbox"/>								
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		<table border="1"> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table> <p><b>Corrective Action Request No.10.</b> The parameter <math>U_{b,baseline}</math> in not consistent throughout the CPA-DD. Please make the parameter consistent.</p>	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA												
Correct value provided?	Yes																					
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Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.5.1.3.16. $UF_{b,project}$ - Model correction factor to account for model uncertainties of runoff water	2, 4, 5, 6, 7, 58	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	No	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
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Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
<b>B.5.2. Ex-ante calculation of emission reductions (B.5.2.):</b>																						
B.5.2.1. Is the projection based on the same procedures as used for future monitoring?	2, 4, 5, 6, 7, 57, 58	Yes, the projections are based on the same procedures as used for future monitoring.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
B.5.2.2. Are the GHG calculations documented in a complete and transparent manner?	2, 4, 5, 6, 7, 57, 58	Please refer to CR 7 above <b>Corrective Action Request No.11.</b> Please mention the equation used for monitoring $BE_{CH_4,SWDS,y}$ in CPA-DD. Further please provide the basis (as stated in ER sheet) for considering annual FFB consumption and EFB/FFB ratio	CAR, CR	<input checked="" type="checkbox"/>																		

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B.5.2.3. Is the data provided in this section consistent with data as presented in other chapters of the PoA-DD or CPA-DD?	2, 4, 5, 6, 7, 57, 58	<b>Corrective Action Request No.12.</b> Please update CPA-DD as per corrections suggested for PoA-DD (CAR 24, 25, 30, 32, 33 of PoA-DD)	CAR	<input checked="" type="checkbox"/>
<b>B.5.3. Summary of the ex-ante estimation of emission reductions (B 5.3)</b>				
B.5.3.1. Will the programme activity result in fewer GHG emissions than the baseline scenario?	57, 58	Yes, the CPA would avoid methane emissions from anaerobic decomposition of EFB and POME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.3.2. Is the form/table required for the indication of projected emission reductions correctly applied?	57, 58	<b>Corrective Action Request No.13.</b> Please include the crediting years in table 8 of CPA-DD	CAR	<input checked="" type="checkbox"/>
B.5.3.3. Do these values comply with small-scale criteria for every year?	57, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.3.4. Is the projection in line with the envisioned time schedule for the programme's implementation and the indicated crediting period?	57, 58	<b>Corrective Action Request No.14.</b> Please correct the ex-ante estimation of emission reduction as per the revised starting date of crediting period	CAR	<input checked="" type="checkbox"/>
B.5.3.5. Is the data provided in this section in consistency with data as presented in other chapters of the PoA- or CPA-DD?	57, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.6. Application of the monitoring methodology and description of the monitoring plan</b>				
<b>B.6.1. Description of the monitoring plan for the SSC-CPA</b>				
B.6.1.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	2, 4, 5, 6, 7, 57, 58	<b>Corrective Action Request No.15.</b> Please include the operational and management structure as discussed on section B.6.1.	CAR	<input checked="" type="checkbox"/>



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
B.6.1.2.Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	2, 4, 5, 6, 7,57, 58	Yes, it has been indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.3.Does the monitoring plan provide current good monitoring practice?	2, 4, 5, 6, 7,57, 58	Please refer to B.6.1.1	CAR	<input checked="" type="checkbox"/>
B.6.1.4.If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	2, 4, 5, 6, 7,57, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.5.Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	2, 4, 5, 6, 7,57, 58	<p>No</p> <p><b><u>Corrective Action Request No.16.</u></b></p> <p>Please include monitoring parameter E<sub>Ly</sub>, Electricity consumed by the project activity in the year y. Further please clarify whether the Biomass power plant used to export power to Grid in baseline scenario or in project scenario.</p> <p><b><u>Corrective Action Request No.17.</u></b></p> <p>Please include the following parameter in the monitoring plan:</p> <ul style="list-style-type: none"> <li>• ‘Q<sub>y</sub>, Quantity of waste composted in the year “y” in the monitoring plan of PoA-DD</li> <li>• EF<sub>CO2</sub> - CO2 emission factor from fuel use due to transportation (kgCO2/km)</li> <li>• BE<sub>CH4,SWDS,y</sub> - yearly methane generation potential of the solid waste composted by the project during the years “x” from the beginning of the project activity (x=1) up to the year “y”</li> <li>• MEP<sub>y,ww</sub> - Methane emission potential in the year “y” of the wastewater. The value of this term is zero if co-composting</li> </ul>	CAR	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		of wastewater is not included in the project.		
B.6.1.6.Qy - Quantity of waste composted in the year “y” (tonnes)	2, 58	Please refer to CAR 16	CAR	<input checked="" type="checkbox"/>
B.6.1.7.Parameter Title: composition of waste composted through representative sampling	2, 58	NA (Since all the composting material would be EFB)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.8. W <sub>x</sub> Amount of organic waste prevented from disposal in year ‘x’	2, 58	Please refer to CAR 10 above	CAR	<input checked="" type="checkbox"/>
B.6.1.9.Q <sub>y,ww,in</sub> - Flow rate of organic wastewater into the composting facility (m <sup>3</sup> /year)	2, 58	<b>Clarification Request No. 18.</b> Please provide the basis for POME/FFB and compost/EFB ratio as stated in the ER sheet	CR	<input checked="" type="checkbox"/>
B.6.1.10. COD <sub>y,ww,untreated</sub> - Chemical oxygen demand of the wastewater entering the co-composting facility in the year y	2, 58	<b>Corrective Action Request No.18.</b> Please include monitoring frequency for COD <sub>y,ww,untreated</sub> . Further please provide us the basis for considering 24.73 kg/m <sup>3</sup> for ex-ante computation	CAR	<input checked="" type="checkbox"/>
B.6.1.11. Q <sub>y,ww,runoff</sub> - Volume of runoff water from the co-composting plant (m <sup>3</sup> )	2, 58	All the runoff water is expected to be recycled back to composting plant. However still a monitoring parameter has been introduced for transparency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.12. COD <sub>y,ww,runoff</sub> - Chemical oxygen demand of the runoff water leaving the composting facility in the year y (tonnes/m <sup>3</sup> )	2, 58	Please refer to CAR 15 above	CAR	<input checked="" type="checkbox"/>
B.6.1.13. CTy - average truck capacity for waste transportation (tonnes/truck)	2, 58	NA (Since there is no incremental distance to transport EFB or waste water)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.14. Q <sub>y,comp</sub> – Quantity of final compost produced in year y (tonnes)	2, 58	Please refer to CR 18 above	CR	<input checked="" type="checkbox"/>

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B.6.1.15. FCy – Quantity of fossil fuel consumed by the project in year ‘y’	2, 58	<b>Clarification Request No. 19.</b> As per the methodology, annual amount of fossil fuel needs to be monitored, however the CPA-DD considers data from invoices, please clarify	CR	<input checked="" type="checkbox"/>
B.6.1.16. DAFw – Average incremental distance for waste transportation	2, 58	NA (Since there is no incremental distance to transport EFB or waste water)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.17. DAF <sub>comp</sub> – Average incremental distance for composting transportation (km/truck)	2, 58	<b>Clarification Request No. 20.</b> Please provide us the basis for input values taken for ex-ante computation of ER (DAT <sub>comp</sub> , CT <sub>y,comp</sub> )	CR	<input checked="" type="checkbox"/>
B.6.1.18. CT <sub>y,comp</sub> – Average truck capacity for compost transportation (tonnes/truck)	2, 58	Please refer to CR 18	CR	<input checked="" type="checkbox"/>
B.6.1.19. Parameter Title: Energy used by the project activity, i.e. for aeration, turning of compost piles, pre-processing of biomass, drying of final compost product, etc.	2, 58	<b>Corrective Action Request No.19.</b> Please include the parameter to monitor the energy consumption in the project activity (ex: for aeration, turning of compost piles, pre-processing of biomass, drying of final compost product, etc.)	CAR	<input checked="" type="checkbox"/>
B.6.1.20. BE <sub>CH4,SWDS,y</sub> yearly methane generation potential of the solid waste composted by the project during the years “x” from the beginning of the project activity (x=1) up to the year “y”	2, 58	Please refer to CAR 17	CAR	<input checked="" type="checkbox"/>
B.6.1.21. MEP <sub>y,ww</sub> Methane emission potential in the year “y” of the wastewater. The value of this term is zero if co-composting of wastewater is not included in the project.	2, 58	Please refer to CAR 17	CAR	<input checked="" type="checkbox"/>

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B.6.1.22. Oxygen level in the compost (%)	2, 58	<b>Clarification Request No. 21.</b> Please clarify what kind of sampling measures are being taken to ensure maximum margin of error of 10% at a 95% confidence level for this parameter (oxygen level in the compost)	CR	<input checked="" type="checkbox"/>
B.6.1.23. Temperature in the compost (°C)	2, 58	Temperature would be recorded daily to ensure aerobic conditions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.24. Moisture content in the compost (% water content)	2, 58	Moisture content would be measured daily to ensure aerobic conditions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.25. Soil application of the compost in the plantation	2, 58	<b>Clarification Request No. 22.</b> Please include which kind of verification would be carried out and at which interval to ensure aerobic condition of compost sold	CR	<input checked="" type="checkbox"/>
B.6.1.26. f - fraction of methane captured at the SWDS and flared, combusted or used in another manner	2, 58	NA to this CPA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>C. Environmental Analysis</b>				
<b>C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken:</b>				
C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level?	8, 10, 11, 12, 13	The environmental analysis takes place at the CPA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	8, 10, 11, 12,	<b>Corrective Action Request No.20.</b> Please submit us the Government Regulation which states that composting plant shall not require an EIA. Further as stated in CPA-DD, please provide us the Environmental management and monitor-	CAR	<input checked="" type="checkbox"/>

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	13	ing plan		
<b>D. Stakeholders' comments</b>				
<b>D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:</b>				
D.1.1. Is there a clear statement whether the stakeholder comments were invited at PoA or CPA level?	42, 50, 52	<b>Corrective Action Request No.21.</b> Please include in section D.2 of CPA-DD as to how stakeholders were invited for the Local stakeholder meeting. <b>Clarification Request No. 23.</b> Please provide documentary evidences for the stakeholder meeting conducted at CPA-level (invitations, minutes, attendance sheet, etc)	CAR, CR	<input checked="" type="checkbox"/>
D.1.2. Is the choice justified in a clear and reasonable manner?	42, 50, 52	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E. Annexes 1 – 4</b>				
<b>E.1. Annex 1: Contact Information</b>				
E.1.1. Is the information provided consistent with the one given under section A.3?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.2. Is the information on all private participants and directly involved Parties presented?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.2. Annex 2: Information regarding public funding</b>				
E.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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countries does not result in a diversion of ODA?				
<b>E.3. Annex 3: Baseline information</b>				
E.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PoA- or CPA-DD?	2, 58	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.3.2. \ Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.3.3. Does the additional information substantiate / support statements given in other sections of the PoA- or CPA-DD?	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.4. Annex 4: Monitoring information</b>				
E.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PoA- or CPA-DD?	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PoA- or CPA-DD?	2, 58	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Table 2 Resolution of Corrective Action and Clarification Requests**

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of programme activity implementer's response	Validation team Conclusion
<p><b><u>Clarification Request No. 1.</u></b> Please provide all relevant documentary evidences for values quoted and footnotes mentioned in section A.2 of CPA-DD. Further, please include a brief detail on usage of generated compost in section A.2.</p>	<p>A.2.1</p>	<p>All relevant documentary evidences for values quoted and footnotes as following:</p> <ul style="list-style-type: none"> <li>- FMJ_FFB Processes 2007-2009</li> <li>- Effect of new palm oil mill processes on the EFB and POME utilization</li> <li>- Decomposition, N &amp; K POM</li> <li>- Kepmenlh_51_1995</li> <li>- FMJ_Ownership Permit</li> </ul> <p>have been submitted to DOE. A brief detail on usage of generated compost has been added in section A.2 page 3 of CPA-DD.</p> <p><b><u>Second Response:</u></b> All documentary evidences mentioned above have been submitted to DOE.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Fetty Mina Jaya is a conventional palm oil mill where it does not use an advanced oil separation technologies in the process. POME accounts for about 0.65m3 POME/ton FFB. This has been updated in CPA-DD section A.2 page 3.</li> <li>- Documentary evidence Kepmenlh_51_1995 with English summary has been submitted to DOE.</li> </ul>	<p><input checked="" type="checkbox"/></p> <p>Following documents are still not submitted to the audit team for review:</p> <ul style="list-style-type: none"> <li>- FMJ_FFB Processes 2007-2009</li> <li>- Effect of new palm oil mill processes on the EFB and POME utilization</li> <li>- Decomposition, N &amp; K POM</li> <li>- Kepmenlh_51_1995</li> <li>- FMJ_Ownership Permit</li> </ul> <p><b><u>Response from audit team:</u></b> Please clarify the following points:</p> <ul style="list-style-type: none"> <li>- As per provided attachment, "effect of new palm oil.....", there is 0.65m3 POME/ton FFB processed for conventional processing of FFB, please clarify which kind of processing does the CPA have (because for non conventional plants the document shows 0.45 &amp;</li> </ul>

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		<p>(Relevant document: CD1 Decree Minister of Environment_No_51_Year_1995 Wastewater standard).</p> <ul style="list-style-type: none"> <li>- Documentary evidence FMJ_Ownership Permit with English translation has been submitted to DOE.</li> </ul> <p>(Relevant document: CA2 FMJ_Ownership Permit).</p>	<p>0.25 m3 POME/ton FFB). Also update the CPA-DD to transparently mention this value (65% does not mean 0.65 m3 POME/ton FFB).</p> <ul style="list-style-type: none"> <li>- Please provide the official English translation or English summary of “- Kepmenlh_51_1995” attachment.</li> <li>- Please provide us the translated English summary of the “FMJ_Ownership Permit”.</li> </ul> <p><b><u>Final response by audit team:</u></b></p> <p>All relevant documentary evidences in support of information provided in section A.2 of CPA-DD have been submitted to DOE. After verification the same are considered reliable and valid for the CPA. Further, it is also clarified in the same section that since the project owner does not have own plantation, all the compost produced will be sold to an external buyer who owns the plantation where the compost will be applied at a different location. Based on this assessment the issue can be closed.</p>
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<p><b><u>Corrective Action Request No.1.</u></b> Please include the schedule for implementation of project activity in the CPA-DD and provide documentary evidence for the same</p>	<p>A.2.1.4</p>	<p>The schedule for implementation of the project activity has already been included in the CPA-DD. Please see the table 2 in section B.3 page 7.</p> <p><b><u>Second Response:</u></b> All documentary evidences of the table 3 of CPA-DD:</p> <ul style="list-style-type: none"> <li>- Signed ERPA with EcoSecurities. This information provided by EcoSecurities.</li> <li>- Stakeholder meeting organized by EcoSecurities. This document has been submitted to DOE.</li> <li>- Indonesia DNA approval. This document has been submitted to DOE.</li> <li>- Validation process interrupted by EcoSecurities. This document has been submitted to DOE.</li> <li>- Termsheet between Mina Jaya and South Pole. This document has been submitted to DOE.</li> <li>- Feasibility Report. This document has been submitted to DOE.</li> <li>- Signed contract with technology provider and contractor. This document has been submitted to DOE.</li> <li>- Entry into force of contract with technology provider and contractor. This document has been submitted to DOE.</li> <li>- Signed ERPA with Swiss Carbon Assets Ltd. This document has been submitted to DOE.</li> </ul> <p><b><u>Third Response:</u></b></p>	<p><input checked="" type="checkbox"/> Please provide us the documentary evidences for the steps mentioned in table 2 of CPA-DD.</p> <p><b><u>Response from audit team:</u></b> All the documents referred in the table-3 of the CPA-DD have been provided. However, please clarify the following points:</p> <ul style="list-style-type: none"> <li>- “Signed ERPA with EcoSecurities” has not been provided. Please submit the same.</li> <li>- Please provide the DOE with feasibility report mentioned in the PP’s reply.</li> <li>- As per the withdrawal letter provided in the response, CPA implementer withdrew the project because of some modification which would make the project no longer eligible under CDM, Please clarify in short what modifications have been referred.</li> </ul> <p><b><u>Further response by audit</u></b></p>
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		<ul style="list-style-type: none"> <li>- Documentary evidence of Tripartite Termination Deed has been submitted to DOE to replace the ERPA document. This document is termination of EcoSecurities ERPA dated on 28 June 2006. (Relevant document: CA3 FMJ_Tripartite Termination Deed).</li> <li>- Feasibility Report. This document has been submitted to DOE. (Relevant document: CA4 FMJ_Feasibility Study)</li> <li>- Project Owner has confirmed there will be no significant modification in the project activity. The modification is only at the final product where the compost will be converted into granular. This project is still eligible under CDM. Documentary evidence of the confirmation letter has been submitted to DOE. (Relevant document: CA5 FMJ_Confirmation Modification on Technology).</li> </ul> <p><b><u>Fourth Response:</u></b></p> <ol style="list-style-type: none"> <li>1. Swiss Carbon Assets Ltd. is a sister company of South Pole Carbon Assets Management Ltd. (both companies belong to South Pole holdings, relevant document : DB2 confirmation_SVC_SPCAM_mc and DB3 SP_Holding_Structure)</li> <li>2. Feasibility Study has been translated (relevant document: DC1 CA4 FMJ Feasibility Study translated), this was made by Fetty Minajaya planning dept. Industry expert PhD D. Darnoko, PT. Sri Rejeki Fertilizer, rechecked all assumptions made</li> </ol>	<p><b><u>team:</u></b></p> <p>In response to the original issue the PP has included in the CPA-DD section B.3, Table 3 indicating a schedule for implementation of project activity. However following issues related to documentary evidence submitted needs to be resolved.</p> <ol style="list-style-type: none"> <li>1. The document “CA3 FMJ_Tripartite Termination Deed” includes EcoSecurities and Swiss Carbon Assets Ltd. Please make it transparently clear to DOE how Swiss Carbon Assets Ltd. is related to South Pole.</li> <li>2. Please provide a translated summary in English for the Feasibility Report of Fetty Mina Jaya co-composting project. Furthermore please clarify who has conducted this study for Fetty Mina Jaya?</li> <li>3. The response by PP is clearly contradicting the contents of the letter of withdrawal dated 16 Oct. 2008 submitted by EcoSecurities on behalf of the PP. Considering any modification that</li> </ol>
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		<p>in the feasibility and concluded reasonable numbers have been applied (relevant document: DC2 Fetty Mina Jaya feasibility letter)</p> <ol style="list-style-type: none"> <li>3. The letter sent from EcoSecurities to DNV indicated the intention of the project owner to change the project activity. The type of change could not be elaborated from this letter. However, Fetty Mina sent a letter to the DNA stating their attempt to change from a Co-Composting to a Biogas project. Thus EcoSecurities initiated the withdrawal of the project. The change would imply resubmission of the PDD and a restart of the validation causing additional internal and external costs. Soon after, Fetty Mina realised the challenges related to a Biogas project (i.e. needed grid connectivity for export as own consumption is already covered, requirement of higher technical know-how and chances of underperformance). The consequence was a change, from the initially conventional Co-Composting project, to an improved Co-Composting project with granular compost product. EcoSecurities was no longer willing to work together with Fetty Mina and hence transferred the project to South Pole (relevant document: DC5 FMJ letter DNA 2008).</li> <li>4. The LoA for the PoA has been submitted (relevant document: DC4 LoA Composting)</li> <li>5. The ERPA has been signed at 30 October 2009 where as the ERPA version is dated 2 September 2009. The ERPA signing date has been adjusted in the table 3. 14 November 2009 was the date of the ERPA amendment changing the project from</li> </ol>	<p>can influence the eligibility of a project for CDM as significant, please describe in detail how the project at Fetty Mina which was once ineligible under CDM would meet the requirements now for being part of a different CDM-PoA.</p> <ol style="list-style-type: none"> <li>4. Please provide latest LOA's. The ones already issued refer to EcoSecurities and earlier validation.</li> <li>5. ERPA between Swiss Carbon Assets Ltd. and Fetty Mina Jaya is dated 02<sup>nd</sup> September 2009, whereas table 3 says it was on 14 Nov. 2009. Please clarify.</li> <li>6. Term sheet dated 06/Nov./2008 was between Fetty Mina Jaya and South Pole whereas ERPA dated 02/Sept./2009 between Swiss Carbon Assets Ltd. and Fetty Mina Jaya. In this connection please clarify the association of Fetty Mina Jaya with South Pole and Swiss Carbon.</li> <li>7. Although a discussion in B.3 indicates 6<sup>th</sup> March 2009 as</li> </ol>
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		<p>a singled CDM project to a CPA, part of the PoA. (relevant document. DC6_FMJ_ERPA_Swiss Carbon_Asset_Oct_2009 and DC7_Amendment_FMJ_ERPA_Nov2009)</p> <ol style="list-style-type: none"> <li>6. Swiss Carbon Assets Ltd. is a sister company of South Pole Carbon Assets Management Ltd. (both companies belong to South Pole holdings, relevant document: DB2_confirmation_SVC_SPCAM_mc and DB3 SP_Holding_Structure)</li> <li>7. CPA-DD section A.4.2.1 has been revised with the correct start date of 6 March 2009 which was the signing date of the contract with the technology provider. As the contract is binding it is considered as date of first action and therefore the project start date (same as in section B.3)</li> <li>8. The project construction slowed down in the last month and could not achieve final commissioning yet. Expected commissioning is 1 September 2011.</li> </ol>	<p>starting date A.4.2.1 supports another date. Please resolve this inconsistency. Further please note that any documentation that can be accepted to support the start date shall prove in itself that it was really the earliest date with financial commitments from the project proponent. Therefore please submit further strong evidence to support the actual start date as per Glossary of CDM terms.</p> <ol style="list-style-type: none"> <li>8. Commissioning and commencement of operation of co-composting plant is stated to be done on 1 July 2010 (Table 3). So please update the latest schedule of implementation of project activity in the CPA-DD and provide documentary support for the latest actions.</li> </ol> <p><b><u>Final response by audit team:</u></b></p> <ol style="list-style-type: none"> <li>1. It is evident from the holding structure submitted to DOE that Swiss Carbon Assets Ltd. is a sister company of South Pole Carbon Assets Management Ltd. (both</li> </ol>
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			<p>companies belong to South Pole holdings) and any one can be authorized to sign an agreement. Therefore the issue remains closed.</p> <ol style="list-style-type: none"><li>2. An English translation of feasibility report of dated 15 December 2008 has been submitted to DOE, it is also transparently stated that the study conducted by Fetty Mina Jaya planning department was certified by an external expert Dr. D. Darnoco. The same can be accepted and the issue remains closed.</li><li>3. As per the withdrawal letter provided in the response, CPA implementer earlier withdrew the project because of modification that would make the project no longer eligible under CDM. The modification included change of technology from co-composting to biogas generation. It could be assessed from the documentation and justification provided by PP that this change was not considered to be</li></ol>
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			<p>feasible for CDM by the earlier consultant. Later on the South Pole took over as a project consultant when the PP reconsidered co-composting. In this regard also the communication PP had with the DNA has been witnessed, and the issue remains closed.</p> <ol style="list-style-type: none"><li>4. LOA from Switzerland for “Composting and Co-composting Programme of Activities (PoA) in Indonesia” has been submitted.</li><li>5. Table 3 has been revised to resolve the confusion. The date of signing ERPA has been verified to be 30 October 2009 and on November 2009 the ERPA was amended. The issue remains closed.</li><li>6. It is evident from the holding structure submitted to DOE that Swiss Carbon Assets Ltd. is a sister company of South Pole Carbon Assets Management Ltd. (both companies belong to South Pole holdings) and any one can be authorized to sign an</li></ol>
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			<p>agreement. Therefore the issue remains closed.</p> <p>7. The inconsistency in start date between section B.3 and A.4.2.1 has been resolved. The issue remains closed.</p> <p>8. Commissioning and commencement of operation of co-composting plant is revised to a tentative date- 01 Sept. 2011. The issue remains closed.</p>
<p><b><u>Clarification Request No. 2.</u></b> Please submit the cooperation agreement between PT. Fetty Mina Jaya and the managing entity, and any other documents to substantiate that the programme description is in compliance with the actual situation or planning.</p>	<p>A.2.2</p>	<p>The cooperation agreement between PT. Fetty Mina Jaya and the managing entity will be submitted to DOE.</p> <p><b><u>Second Response:</u></b> The revised cooperation agreement between PT.CPI &amp; PT. Fetty Mina Jaya will be submitted to DOE.</p> <p><b><u>Third Response:</u></b> The revised cooperation agreement between PT.CPI &amp; PT. Fetty Mina Jaya is the amendment to ERPA. This document has been submitted to DOE. (Relevant document: CA6 FMJ_Amendment ERPA).</p> <p><b><u>Fourth Response:</u></b> The revised cooperation agreement between PT.CPI &amp;</p>	<p><input checked="" type="checkbox"/></p> <p>The revised cooperation agreement between PT.CPI &amp; PT. Fetty Mina Jaya has still not been submitted to the audit team.</p> <p><b><u>Response from audit team:</u></b> The document referred in the response has not been submitted yet. Please clarify by when it shall be submitted to the audit team.</p> <p><b><u>Further response by audit team:</u></b> The relevant document “CA6 FMJ_Amendment ERPA” supposed to be the cooperation</p>

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		<p>PT. Fetty Mina Jaya is the amendment to ERPA. This document has now been submitted successfully to the DOE. (Relevant document: DC7 FMJ_Amendment ERPA Nov2009).</p>	<p>agreement (or any other document) between PT. Fetty Mina Jaya and the managing entity was not located among any latest folders submitted by South Pole. Therefore yet it could not be confirmed that the programme description is in compliance with the actual situation or planning.</p> <p><b>Final response by audit team:</b> Based on submitted amendment to ERPA it has been confirmed that the programme description is in compliance with the actual situation and planning. The same also can be considered to be the cooperation agreement between PT. Fetty Mina Jaya and the managing entity. Therefore the issue remains closed.</p>
<p><b>Clarification Request No. 3.</b> Please provide documentary evidence (ownership, licenses, contracts etc.) to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA.</p>	<p>A.3.2</p>	<p>All documentary evidence to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA has been submitted to DOE. - (Relevant documents: FMJ_Ownership Permit)</p> <p><b>Second Response:</b> Documentary evidence to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA has been submitted to DOE.</p>	<p><input checked="" type="checkbox"/> Please submit us the referred document.</p> <p><b>Response from audit team:</b> Documentary evidence to substantiate that PT. Fetty Mina Jaya can carry out the proposed CPA has been submitted. How-</p>



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		<p><b><u>Third Response:</u></b>                  Documentary evidence to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA with summary in English has been submitted to DOE.                  (Relevant document: CA2 FMJ_Ownership Permit).</p>	<p>ever, please provide us the English translation of the referred document.</p> <p><b><u>Final response by audit team:</u></b>                  The Document “CA2 FMJ_Ownership Permit” is a sufficient documentary evidence to substantiate that PT. Fetty Mina Jaya can carry out the proposed SSC-CPA. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.2.</u></b>                  Please include the technical description of the CPA in section A.4. Technical details should include the installed capacity of compost plant and technology used in composting plant. Also submit supplier documents/manual to confirm the same to the DOE.</p>	<p>A.4.1.4</p>	<p>All quotations are applicable for the project as all of the equipment listed in the quotations are needed for the operation of the co-composting project.                  Each quotation (relevant document: CA6 FMJ Equipment Specification And Supplier Document) represents a number of the feasibility study (relevant document: DC1 CA4 FMJ Feasibility Study translated):                  CV Satu Kosong: Item no. 11                  PT Bina Pertiwi: Item no. 4                  Mitsubishi: Item no. 6                  Surya Nyiur Indah: Item no. 12, 13, 14, 15, 16, 17, 18</p> <p>Not all the numbers are inline with the feasibility study as project owner did not yet decide on each technology provider. The values from the feasibility study have been taken for the investment analysis as</p> <p>i) they have lead to the investment decision and</p>	<p><input checked="" type="checkbox"/></p> <p>The technical description of the CPA has been included in section A.4. Supporting evidence for the data mentioned in table-1 in A.4 of CPA-DD is also provided (supplier documents/manual). Therefore the issue has been closed.</p>

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		ii) are more conservative as the quotations.	
<p><b><u>Clarification Request No. 4.</u></b> Please submit the documentary evidence to validate the operational lifetime mentioned in the CPA-DD.</p>	A.4.2.3	<p>Operational lifetime of the project activity is the technical lifetime of the machineries. Relevant document has been submitted to DOE. (FMJ_Confirmation technical lifetime from Technology Provider).</p> <p><b><u>Second Response:</u></b> Documentary evidence of operational lifetime will be submitted to DOE.</p> <p><b><u>Third Response:</u></b> Documentary evidence of operational lifetime is the technical lifetime of the turning machine as the important asset. Documentary evidence of technical lifetime of the turning machine has been submitted to DOE. (Relevant document: CA7 FMJ_Confirmation technical lifetime from Technology Provider) and translation in English.</p>	<p><input checked="" type="checkbox"/> Please submit us the referred document for review.</p> <p><b><u>Response from audit team:</u></b> The document referred in the response has not been submitted yet.</p> <p><b><u>Final response by audit team:</u></b> Based on the Technology Providers confirmation it has been accepted that the operational lifetime mentioned in the CPA-DD can be 15 years. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.3.</u></b> The starting date of the crediting period, 1<sup>st</sup> March 2010, is not realistic and plausible. Please correct the same</p>	A.4.3.1	<p>The starting date of the crediting period is changed to the 1 September 2011 which is more realistic and plausible. The CPA-DD has been revised in section A.4.3.1. page 6.</p>	<p><input checked="" type="checkbox"/> Starting date of the crediting period is revised and is now realistic &amp; plausible.</p>
<p><b><u>Clarification Request No. 5.</u></b> Please provide information on project financing plan.</p>	A.4.5.1	<p>The project will be financed by 100% equity. Relevant document has been submitted to DOE. (FMJ_Confirmation equity 100% from PO).</p>	<p><input checked="" type="checkbox"/> Please submit us the referred document for review.</p>

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		<p><b><u>Second Response:</u></b> Documentary evidence mentioned above will be submitted to DOE.</p> <p><b><u>Third Response:</u></b> The project will be financed by 100% equity. Relevant document has been submitted to DOE. (CA8 FMJ_Confirmation equity 100%).</p>	<p><b><u>Response from audit team:</u></b> The document referred in the response has not been submitted yet. Also refer the exact attachment name in the response for transparency.</p> <p><b><u>Final response by audit team:</u></b> Based on the self declaration from the management of Fetty Mina Jaya it is accepted that the project financing plan includes 100% equity. Therefore the issue remains closed.</p>
<p><b><u>Clarification Request No. 6.</u></b> Please use the latest guidance for de-bundling check (EB 47 annex 32). Further, please provide us the contractual agreement between PT. Fetty Mina Jaya and Managing entity, as stated in section A.4.4.1 of PoA-DD to ensure de-bundling issues.</p>	<p>A.4.6.1</p>	<p>The latest guidance for de-bundling check (EB 54 annex 13) has been used in the PDD section. The agreement between PT. Fetty Mina Jaya and PT. CPI will be submitted to DOE.</p> <p><b><u>Second Response:</u></b> The agreement between PT. Fetty Mina Jaya and PT. CPI will be submitted to DOE.</p> <p><b><u>Third Response:</u></b> The agreement between PT. Fetty Mina Jaya and PT. CPI has been submitted to DOE. (Relevant document: CA6 FMJ_Amendment ERPA)</p>	<p><input checked="" type="checkbox"/> Section A.4.6 has been updated as per latest de-bundling guidance (EB47 annex32). However, the revised agreement between PT.CPI &amp; PT. FMJ has still not been submitted to the audit team.</p> <p><b><u>Response from audit team:</u></b> The document referred in the response has not been submitted yet.</p> <p><b><u>Further response by audit</u></b></p>

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		<p><b><u>Fourth Response:</u></b>                  The revised cooperation agreement between PT.CPI &amp; PT. Fetty Mina Jaya is the amendment to ERPA. This document has now been submitted successfully to the DOE.                  (Relevant document: DC7 FMJ_Amendment ERPA Nov2009).</p>	<p><b><u>team:</u></b>                  The requirement of latest guidance for de-bundling check (EB 54 annex 13) has been fulfilled. The relevant document “CA6 FMJ_Amendment ERPA” supposed to be the cooperation agreement (or any other document) between PT. Fetty Mina Jaya and the managing entity was not located among any latest folders submitted by South Pole. Therefore the issue remains open at this stage.</p> <p><b><u>Final response by audit team:</u></b>                  Based on submitted amendment to ERPA it has been confirmed that the programme description is in compliance with the actual situation and planning. The same also can be considered to be the cooperation agreement between PT. Fetty Mina Jaya and the managing entity. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.4.</u></b>                  Please discuss all the applicability criteria of AMS-III.F ver 8 in CPA-DD (section B.2).</p>	<p>B.2.1</p>	<p>All applicability criteria of AMS-III.F version 8 has been added in the CPA-DD section B.2. page 9.</p> <p><b><u>Second Response:</u></b>                  1. Justification of applicability criteria 4 has been revised.</p>	<p><input checked="" type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Justification of applicability criteria 4 is not appropriate, please justify the same.</li> <li>• As per the AMS.III.F, please</li> </ul>

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		<p>2. Justification of applicability criteria 4, 6 and 7 of AMS-III.E has been included in CPA-DD section B.2.</p> <p>3. It is a common practice in the region to dispose off the EFB in a solid waste disposal site as more than 60% of palm oil mill in Indonesia treated the EFB in a landfill area. This has been included in the applicability criteria in section B.2.</p> <p>4. Documentary evidence to prove the landfill area shall be able to accommodate the solid waste throughout the crediting period has been submitted to DOE. (Relevant document: FMJ_Layout of WWTP).</p> <p>5. Geographical boundary of the region has been revised in CPA-DD.</p> <p>6. The palm oil mill does not have its own plantation, all the processed FFB will come from small holders' plantations. Section A.2 has been revised accordingly.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- In the palm oil mill, EFB usually disposed in a dumpsite, burned in an incinerator or used as mulch in oil palm plantation. Burning of EFB in the incinerator is no longer allowed and highly discouraged in Indonesia and Malaysia since it causes high air pollution. The utilization of EFB for mulching has some disadvantages. High transportation and distribution costs, very slow degradation process (up to one year), limited nutrient availability for palm trees, water pollution by the rest oil and possibility of beetles and snakes. Most of the palm oil mills have started to dispose</li> </ul>	<p>include transparently the justification for guidance 4,6,7 of AMS-III.E.</p> <ul style="list-style-type: none"> <li>• As per applicability criteria 7 of AMS-III.F, please establish that it is a common practice in the region to dispose off the waste in solid waste disposal site.</li> <li>• Please provide us the documentary evidence to prove that the identified landfill shall be able to accommodate the solid waste throughout the crediting period.</li> <li>• For applicability criteria 7, PoA-DD assumes regional boundary as 200 Km for a CPA, whereas CPA-DD assumes it to be 1 Km, please clarify.</li> <li>• Section A.2 of CPA-DD mentions,“FFB will come partly from its own plantation and partly from small holders plantations”, whereas in section B.2 (eligibility criteria) it is mentioned that CPA doesn't have its own plantation, please clarify.</li> </ul>
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		<p>the EFB in a dumpsite. There is no mandatory regulation for disposal of EFB in a dumpsite. This treatment only involves transportation and human resource costs which is simple and very cheap. In case of Fetty Mina Jaya palm oil mill, EFB has been disposing in unmanaged dumpsite since the mill started operational in 2006. The mill has no incinerator for burning and also oil palm plantation for mulching.</p> <p>Documentary evidences have been submitted to DOE.</p> <p>(Relevant document: CB1 Darnoko - Greenhouse Gas Reduction Potential at Palm Oil Mill in Indonesia; CB2 CTE_15_Schuchardt_Compos).</p> <ul style="list-style-type: none"> <li>- Layout that shows the identified landfill shall be able to accommodate the solid waste throughout the crediting period has been submitted to DOE. (Relevant document: CB3 FMJ_Layout Mill).</li> </ul>	<p><b><u>Response from audit team:</u></b></p> <ul style="list-style-type: none"> <li>• Justification to applicability criteria 4 has been updated appropriately.</li> <li>• Para 4,6,7 of AMS-III.E has been updated in the CPA-DD. It was also verified during the onsite visit that EFB is dumped in the landfill.</li> <li>• Please provide the supporting documents to justify the common practice in the region as dumping of EFB.</li> <li>• Referred document, “FMJ_Layout of WWTP”, in the response has been provided, however it only refers to POME treatment facility, &amp; it cannot be verified that the identified landfill shall be able to accommodate the solid waste throughout the crediting period. Please provide other documents also for this applicability criterion.</li> <li>• CPA-DD has been updated to fix the boundary less than 200km as per PoA-DD.</li> <li>• Section A.2 of CPA-DD has</li> </ul>
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			<p>been revised to maintain consistency.</p> <p><b>Final response by audit team:</b></p> <ul style="list-style-type: none"> <li>• The published documents on EFB/POME management in palm oil mills sufficiently justify dumping of EFB in land fill as a common practice in Indonesia.</li> <li>• Layout plan of Fetty mina Jaya that informs- landfill shall be able to accommodate the solid waste throughout the crediting period has been verified.</li> </ul> <p>Since the audit team can confirm that all the applicability criteria of AMS-III.F ver 8 have been referred to in CPA-DD (section B.2), the issue remains closed.</p>
<p><b>Clarification Request No. 7.</b> Please provide some documentary evidence to substantiate that Fetty Jaya Palm oil mill started its operations in 2006.</p>	<p>B.2.1</p>	<p>Documentary evidence to substantiate that Fetty Jaya Palm oil mill started its operations in 2005 has been submitted to DOE. (Relevant documents: FMJ_Ownership Permit)</p> <p><b>Second Response:</b></p>	<p><input checked="" type="checkbox"/></p> <p>Please submit us the referred document for review.</p> <p><b>Response from audit team:</b> The document referred in the response has been submitted.</p>

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		<p>Documentary evidence has been submitted to DOE. (Relevant documents: FMJ_Ownership Permit_summary).</p> <p><b><u>Third Response:</u></b> <i>Please refer to A.3.2</i> Documentary evidence with summary in English has been submitted to DOE. (Relevant documents: FMJ_Ownership Permit_summary).</p>	<p>However, please provide us the English translation of the same.</p> <p><b><u>Final response by audit team:</u></b> The official document “FMJ_Ownership Permit” has been verified to confirm that Fetty Jaya Palm oil mill started its operations in 2006. Therefore the issue remains closed.</p>
<p><b><u>Clarification Request No. 8.</u></b> As per eligibility criteria (i), project should be a newly developed co-composting plant, therefore please provide some documentary evidences to justify that EFB and POME were not co-composted before the implementation of the project activity and were anaerobically decomposed in the baseline scenario</p>	<p>B.2.1</p>	<p>Justification is some photographs show the EFB dumped at the unmanaged landfill and POME treated in a series of open lagoons. These also have been clarified during onsite validation. Documentary evidences have been submitted to DOE. (Relevant documents: FMJ_Baseline Pics)</p>	<p><input checked="" type="checkbox"/></p> <p>It has been verified by the onsite visit &amp; photographs that EFB &amp; POME were not co-composted in the baseline scenario</p>
<p><b><u>Clarification Request No. 9.</u></b> Please clarify how it can be verified that the processed FFB is coming from plantations before 22<sup>nd</sup> November’07 (The date when the Roundtable on Sustainable Palm Oil (RSPO) was launched (<a href="http://www.rspo.org">www.rspo.org</a>)) and provide the necessary documents to support the same</p>	<p>B.2.1</p>	<p>As per eligibility criteria point iv. “composting or co-composting plant is implemented in a palm oil mill that does not process palm fruit from its own plantations or in palm oil mills that have plantations established before 22 November 2007”. Fetty Mina Jaya does not have own plantation, all the processed FFB is coming from small-holders. Eligibility criteria have been revised in PoA-DD section B.2 page 8. (Relevant documents: FMJ_Ownership Permit).</p>	<p><input checked="" type="checkbox"/></p> <p>Please submit us the referred document for review.</p> <p><b><u>Response from audit team:</u></b> The document referred in the response has been submitted. However, please refer to CR7 above.</p>



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		<p><b><u>Second Response:</u></b> Documentary evidence has been submitted to DOE. (Relevant documents: FMJ_Ownership Permit_summary).</p> <p><b><u>Third Response:</u></b> <i>Please refer to A.3.2</i> Documentary evidence with summary in English has been submitted to DOE. (Relevant documents: CA2 FMJ_Ownership Permit).</p>	<p><b><u>Final response by audit team:</u></b> The official document “FMJ_Ownership Permit” has been verified to confirm that Fetty Jaya Palm oil mill started its operations in 2006. Therefore it can be inferred that FFB is coming from plantations before 22<sup>nd</sup> November’07 at this location and the issue remains closed.</p>
<p><b><u>Clarification Request No. 10.</u></b> Please mention in section B.3 of CPA-DD template which approach is followed to prove additionality. As per footnote 5 of CPA-DD, version 1 of “Guidance on the demonstration and assessment of prior consideration of the CDM” is used. Please use the latest version (EB 49, Annex 22) for proving prior consideration of CDM</p>	<p>B.3.1</p>	<p>As per attachment A to appendix B to the simplified Modalities &amp; Procedures for small-scale CDM project activities, at least one barrier listed shall be identified due to which the project would not have occurred any way. This approach has been included in the CPA-DD in section B.3 page 13.</p> <p>Prior consideration of CDM has been clearly described in the CPA-DD section B.3.</p> <p><b><u>Second Response:</u></b> All the documentary evidence mentioned in table 2 of CPA-DD has been submitted to DOE. Please see the explanation in CAR 1.</p> <p><b><u>Third Response:</u></b></p>	<p><input checked="" type="checkbox"/></p> <p>CPA-DD is still not updated to use the latest version of guidance on prior consideration of CDM (please use ver3, EB 49 annex 22). Further, please submit the supporting documents for table-2 of CPA-DD. All the referred documents in the response are not submitted to the audit team.</p> <p><b><u>Response from audit team:</u></b> CPA-DD still uses the old version of guidance, please use the latest version (EB 49, annex22) – Footnote 8 has not been updated.</p>

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		<ul style="list-style-type: none"> <li>- CPA-DD has been revised to use the latest version of Guidance on the Demonstration and Assessment of Prior Consideration of the CDM, EB 49 Annex 22.</li> <li>- Footnote 8 has been updated to EB 49 Annex 22.</li> </ul> <p><b><u>Fourth Response:</u></b>                  Feasibility Study has been translated (relevant document: DC1 CA4 FMJ Feasibility Study translated), Project IRR calculation was based on the Feasibility Study (section Costs, excluding CDM related costs i.e. consultant and CDM monitoring tools; this was clarified in footnotes 11 and 12).</p>	<p>Please refer to CAR-1 for further response.</p> <p><b><u>Further response by audit team:</u></b>                  Section B.3 of CPA-DD followed investment barrier approach using benchmark analysis in order to prove the additionality. The pre-tax project IRR is arrived at - 3.63% as against the benchmark of 13.32% (local commercial bank). All the input parameters of project IRR except the costs of investment and O&amp;M were verified and found to be acceptable. The issue can be closed after an English version of Feasibility Study is submitted to Audit team (also clarity on footnotes 11 and 12 is required).</p> <p><b><u>Final response by audit team:</u></b>                  An English translation of feasibility report of dated 15 December 2008 has been submitted to DOE, it is also transparently stated that the study conducted by Fetty Mina Jaya planning department was certified by an external expert Dr. D. Darnoco.</p>
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			<p>The same can be accepted and the issue remains closed.</p>
<p><b>Clarification Request No. 11.</b> Please provide us all the documentary evidences corresponding to timeline (table 2) mentioned in CPA-DD for prior consideration.</p>	<p>B.3.1</p>	<p>All documentary evidences corresponding to the timeline (table 2) have been submitted to DOE as following:</p> <ul style="list-style-type: none"> <li>- FMJ_SC Report EcoSecurities</li> <li>- FMJ_LoA DNA 06.03.2008</li> <li>- FMJ_LoA Annex I 24.06.2008</li> <li>- FMJ_Agreement with EPC Contractor</li> <li>- FMJ_1st payment EPC</li> </ul> <p><b>Second Response:</b> All the documentary evidence mentioned in table 2 of CPA-DD has been submitted to DOE. Down payment 30% paid to EPC contractor on 11 August is set as the starting date of the project activity, as this is the real action of the implementation of the project. Without down payment, EPC contractor will not start the job.</p> <p><b>Third Response:</b> The starting date of the project activity is set as the date of signing the agreement with the EPC contractor on 6 March 2009. This is the earliest conceivable start date as there can be no project can be implemented without such agreement. CPA-DD has been revised in section B.3.</p> <p><b>Fourth Response:</b></p>	<p><input checked="" type="checkbox"/></p> <p>Please submit us the referred document for review. Also please clarify why 6<sup>th</sup> March'09 (contract with technology provider) is not considered as the start date for the project activity.</p> <p><b>Response from audit team:</b> All the documents for prior consideration have been provided, except the ERPA with Eco-securities.  Further, it cannot be justified from the response as to why 6<sup>th</sup> March'09 has not been considered as the start date. Please further elaborate on this issue since common understanding says that no company will sign a contract without any reason or with an intention of backing out.</p> <p><b>Further response by audit team:</b> The issue can be closed further</p>

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		Please refer to CAR1 response	to closure of CAR 1 above.  <b>Final response by audit team:</b> CAR 1 has been closed therefore it can be confirmed that all the documentary evidences corresponding to timeline (table 2) mentioned in CPA-DD for prior consideration have been submitted. Therefore the prior consideration has been established.
<p><b>Clarification Request No. 12.</b> As per the stated baseline scenario, implementation of project activity would avoid anaerobic treatment of POME and EFB, thereby avoiding some operational and management expenses. Please clarify why this parameter has not been taken into consideration as an income source.</p>	B.3.1	<p>Additionality is proven by applying a benchmark analysis. Such includes a project IRR calculation which is compared to a suitable benchmark IRR. As per "GUIDELINES ON THE ASSESSMENT OF INVESTMENT ANALYSIS (Version 3)", paragraph 9, "The purpose of the project IRR calculation is to determine the viability of the project to service debt". A more precise definition is given in "Wall Street words: an A to Z guide to investment terms for today's investor" defining an IRR as: "The rate of discount on an investment that equates the present value of the investment's cash outflows with the present value of the investment's cash inflows. Internal rate of return is analogous to yield to maturity for a bond". Hence, the calculation is done on a investors point of view, looking at direct revenues and direct costs of the investment which includes O&amp;M costs of the project activity but excludes O&amp;M costs from the baseline activity as it is not a direct project revenue. Neither in the additionality tool nor in the guidelines on the assessment of investment analysis the inclusion of indirect</p>	<p><input checked="" type="checkbox"/> Since O&amp;M expense from the project activity has been deducted from the total revenue in IRR sheet, therefore O&amp;M from the baseline needs to be considered as the revenue source also. Either remove O&amp;M from the project activity in IRR computation or include baseline O&amp;M as revenue source in the IRR sheet (as PP mentioned that O&amp;M of baseline is replaced by O&amp;M from the project activity).</p> <p><b>Response from audit team:</b> It cannot be justified from the response as to why O&amp;M cost</p>

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	<p>costs/revenues into the project IRR calculation are requested or mentioned.</p> <p>To cross check the interpretation of a project IRR calculation the UNFCCC pipeline shall be consulted. Since the EB published the last version of "GUIDELINES ON THE ASSESSMENT OF INVESTMENT ANALYSIS (Version 3)" on 4 December 2009 four projects applying AMS III.F have been registered or requested registration (ref. no. 2727, 3379, 3221, 3154). All of them do not include any indirect costs/revenues which clearly indicates the position of the EB.</p> <p>Reference: Wall Street Words: An A to Z Guide to Investment Terms for Today's Investor by David L. Scott. Copyright © 2003 by Houghton Mifflin Company. Published by <u>Houghton Mifflin Company</u>.</p> <p><b><u>Third Response:</u></b></p> <p>Disposal of EFB in a dumpsite is very cheap and simple. The only cost needed is for transportation cost which is typically using the existing transport equipment from the mill. There is no additional investment for EFB treatment.</p> <p>POME is usually treated in a series of open lagoon system. POME flows from one pond to another by gravity which makes the operation cost are minimal. Such costs were included in the company palm-oil mill operations, as part of overall mill maintenance worker division.</p> <p>Therefore O&amp;M costs of the baseline cannot be separated from typical mill operations, and not being consid-</p>	<p>can be excluded.</p> <p>Further, EB follows the path of gradual improvement, if a clarification has not been asked by EB in this perspective does not guarantee their acceptance on this aspect. Therefore, this issue cannot be closed with the provided response.</p> <p><b><u>Final response by audit team:</u></b></p> <p>Avoided O&amp;M costs amounting to IDR 37,789,474 in the baseline are addressed in the CPA-DD of Fetty Minajaya (see Table 5 of CPA-DD). Therefore the approach adopted by PP for arriving at project IRR- sensitivity analysis can be considered conservative. The issue is closed.</p>
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		<p>ered in the composting project itself.</p> <p>This costs is considered minor, nevertheless for conservative assessment : in CPA-DD section B.3 – Table 5 Sensitivity Analysis (O&amp;M reduction) it is described this avoided costs would represent only 1.27% of the project annual O&amp;M costs.</p> <p>Calculation example of this alternative has been submitted to DOE.</p> <p>(Relevant document: CC1 PoA_Avoided Cost EFB and POME.xls)</p>	
<p><b><u>Corrective Action Request No.5.</u></b></p> <p>As per project description in section A.2 of CPA-DD, the FFB production is 217,800 TPA (=30*22*330), hence the corresponding compost would be 23,958 TPA (22%*50%*217800). However investment analysis assumes 11,224 TPA for computation, please use the output capacity of compost plant (23,958 TPA) for investment analysis.</p>	<p>B.3.1</p>	<p>Based on the last 3 years historical data, the mill processed on an average of 102,034 tonnes FFB per year. If then we assume 22% EFB ratio and 50% compost ratio, the compost production is: 11'224 (=102034*0.22 *0.5)</p> <p>CPA-DD and spreadsheets have been revised accordingly.</p> <p>(Relevant document: FMJ_FFB Processes 2007-2009).</p> <p><b><u>Second Response:</u></b></p> <p>Based on last 3 years data, the highest FFB processed was in year 2007 with 125,194 ton. PP has confirmed it is not realistic the palm oil mill operational 330 d/y and 22 h/d as it will be very depends on the FFB's supply. Fetty Mina Jaya does not have own plantation and FFB's supply really depend on the smallholder plantation around the mill. It means they cannot secure the fix amount of FFB to be processed. The composting plant is</p>	<p><input checked="" type="checkbox"/></p> <p>Project IRR is based on installed capacity of the composting plant which in turn depends on FFB processing plant, since the installed capacity of FFB processing plant is 30 TPH, please consider the output capacity of compost accordingly in the IRR computation.</p> <p><b><u>Response from audit team:</u></b></p> <p>Confirmation from technology provider about design capacity of composting plant is not submitted.</p> <p>Also please justify the statement that FFB supply is not enough in</p>

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		<p>designed based on this value. And if any increase in FFB processed, the composting plant will be expanded. Confirmation from technology provider about design capacity of composting plant will be submitted to DOE later on.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Confirmation from technology provider about design capacity has been submitted to DOE. (Relevant document: CB4 FMJ_ Confirmation technical lifetime from Technology Provider)</li> <li>- No statement mentioned that “FFB supply is not enough in the region to make the mill work for 330 days/yr”. PP said it is not realistic the palm oil mill work 330 d/y based on their experience. It can be justified from the last 3 years production data.</li> <li>- Summary of documentary evidence “<i>FMJ_Agreement with Compost Buyer.pdf</i>” has been submitted to DOE. (Relevant document: CB5 FMJ_ Agreement with Compost Buyer).</li> </ul>	<p>the region to make the mill work for 330 days/yr. Also provide us the official translation or summary of the attachment “<i>FMJ_Agreement with Compost Buyer.pdf</i>”.</p> <p><b><u>Final response by audit team:</u></b> Based on the document “CB4 FMJ_ Confirmation technical lifetime from Technology Provider” it can be confirmed that compost production of 11,224 TPA as realistic for computation of project IRR. Therefore the issue remains closed.</p>
<p><b><u>Clarification Request No. 13.</u></b> Please justify how the beta values taken “agriculture biotech for emerging market” is appropriate and relevant to the project activity.</p>	<p>B.3.2</p>	<p>In the seek of conservativeness and simplicity, benchmark has been changed to commercial lending rate. Discussion around the beta is not required anymore.</p> <p><b><u>Second Response:</u></b> Commercial lending rate in August 2009 has been used</p>	<p><input checked="" type="checkbox"/> Commercial lending rate as benchmark is acceptable, however please consider lending rate for Aug’09 (investment date - start date) not March’09. <b><u>Response from audit team:</u></b></p>



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		<p>in the calculation. CPA-DD has been revised accordingly.</p> <p><b><u>Third Response:</u></b> As the start date of the project activity is changed to 6 March 2009, lending rate as the benchmark has been considered on that date. Benchmark is now 14.05%. The CPA-DD and IRR spreadsheet have been revised accordingly.</p> <p><b><u>Fourth Response:</u></b> 6 March 2009 is considered as both, start date and investment decision of the project activity, as it is the signing contract with the technology provider. No official board decision exists, as it is a family business. The CPA-DD has been changed accordingly</p>	<p>Please refer to CR-11 above. This issue shall be closed on satisfactory reply to CR-11 above.</p> <p><b><u>Further response by audit team:</u></b> The bench mark now used is considering Local commercial lending rate provided by the Central Bank of Indonesia. Therefore the issue of beta values can be closed. However since the PP's response is contradicting the start date of small scale CPA mentioned in A.4.2.1 of CPA-DD, the issue remains still open.</p> <p><b><u>Final response by audit team:</u></b> The inconsistency in start date between section B.3 and A.4.2.1 has been resolved. The issue remains closed.</p>
<p><b><u>Clarification Request No. 14.</u></b> Please provide us the documentary evidences for all the input parameters for investment analysis.</p>	<p>B.3.2</p>	<p>All documentary evidences for all the input parameters for investment analysis have been submitted to DOE as following:</p> <ul style="list-style-type: none"> <li>- FMJ_Confirmation technical lifetime from TP</li> <li>- FMJ_CTE_15_Suchardt_Compost (page 7 bottom)</li> </ul>	<p>Only CTE_15 has been provided, please submit all other supporting documents for review.</p> <p><b><u>Response from audit team:</u></b></p>



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	<ul style="list-style-type: none"> <li>- FMJ_Agreement with compost buyer</li> <li>- FMJ_Indexmundi</li> <li>- FMJ_Feasibility Study.</li> </ul> <p><b><u>Second Response:</u></b> All documentary evidences for all the input parameters for investment analysis:</p> <ul style="list-style-type: none"> <li>- FMJ_Confirmation technical lifetime from TP. This document will be submitted to DOE.</li> <li>- FMJ_Agreement with compost buyer. This document will be submitted to DOE.</li> <li>- FMJ_Indexmundi. This document will be submitted to DOE.</li> <li>- FMJ_Feasibility Study. This document will be submitted to DOE.</li> </ul> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Documentary evidence : CB4 FMJ_Confirmation technical lifetime from Technology Provider. This has been submitted to DOE.</li> <li>- Documentary evidence : CB5 FMJ_Agreement with compost buyer, This has been submitted to DOE.</li> <li>- Documentary evidence : CA4 FMJ_Feasibility Study. This document has been submitted to DOE.</li> </ul> <p><b><u>Fourth Response:</u></b></p>	<p>Referred document, “Confirmation on technical lifetime” &amp; “feasibility study” have not been provided to the audit team.</p> <p>Also provide us the official translation or summary of the attachment “FMJ_Agreement with Compost Buyer.pdf”.</p> <p><b><u>Further response by audit team:</u></b> All the input parameters of project IRR except the costs of investment and O&amp;M were verified and found to be acceptable. Therefore the issue can be closed after an English version of Feasibility Study is submitted to Audit team (also clarity on footnotes 11 and 12 is required).</p> <p><b><u>Final response by audit team:</u></b> An English translation of feasibility report of dated 15 December 2008 has been submitted to DOE, it is also transparently stated that the study conducted by Fetty Mina Jaya planning department was certified by an external expert Dr. D. Darnoco.</p>
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		<p>Feasibility Study has been translated (relevant document: DC1 CA4 FMJ Feasibility Study translated)</p> <p>Project IRR calculation was based on the Feasibility Study (section Costs, excluding CDM related costs i.e. consultant and CDM monitoring tools; this was clarified in footnotes 11 and 12).</p>	<p>The same can be accepted and the issue remains closed.</p>
<p><b><u>Corrective Action Request No.6.</u></b> Please include a statement and discuss about the relevant national and sectoral policies in CPA-DD template.</p>	<p>B.3.6</p>	<p>There are no relevant national and sectoral policies for the project activity in the host country. This information has been stated in the CPA-DD.</p> <p>Applicable documents which are relevant to the project activity only the regulations related to Palm Oil Mill as following:</p> <ul style="list-style-type: none"> <li>- Regulation of the State Minister of Environment_No_11_Year_2006, Environmental Impact Assessment</li> <li>- Decree of the State Minister of Environment_No_51_Year_1995, Liquid Waste Standards for Industrial Activities</li> <li>- Government Regulation_No_41_Year_1999, Air Pollution Control</li> <li>- Decree of the State Minister of Environment_No_111_Year_2003, Guidelines of Requirements, Permit Procedures and Study for Wastewater Disposal into Water or Water Resources</li> <li>- Decree of the State Minister of Environment_No_13_Year_1995, Quality Standards for Stationary Source Emission</li> </ul>	<p><input checked="" type="checkbox"/></p> <p>All the referred regulation have been provided and mentioned in the CPA-DD, however, please provide us the official translation or summary of these referred regulations.</p> <p><b><u>Response from audit team:</u></b> The documents referred in the response have not been submitted yet.</p> <p><b><u>Final response by audit team:</u></b> A translated summary is provided for each of the five environmental regulations applicable for palm oil mills in Indonesia. It was verified that each of the regulation deals with EIA, Liquid wastes/ Waste water, Air pollution and stationary sources of emissions and are not specific</p>

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		<p>These regulations have been added in section A.2 of the CPA-DD. However, the mentioned applicable regulations do not specifically govern the proposed project activity. All entities that would like to develop palm oil mill in Indonesia must follow those regulations with no exception.</p> <p><b><u>Second Response:</u></b> All documentary evidences mentioned above with translation in Bahasa will be submitted to DOE.</p> <p><b><u>Third Response:</u></b> All documentary evidences mentioned above (Indonesian language) with English translation have been submitted to DOE.</p> <ul style="list-style-type: none"> <li>- CD2 Decree Minister of Environment _No_11_Year_2006 EIA</li> <li>- CD1 Decree Minister of Environment _No_51_Year_1995 Wastewater standard</li> <li>- CD3 Government Regulation_No_41_Year_1999 Air Pollution</li> <li>- CD4 Decree Minister of Environment No_111_Year_2003 Guidelines Wastewater</li> <li>- CD5 Decree Minister of Environment No_13_Year_1995, Quality Stationary Emission</li> </ul>	<p>to composting or co-composting EFB/POME. A review of the submitted evidences indicates that the CPA is a voluntary coordinated action that would not be implemented in the absence of the PoA. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.7.</u></b> Please discuss and include a schematic figure showing the project boundary in section B.4 of CPA-DD.</p>	<p>B.4.1</p>	<p>Project boundary and schematic figure have been included in the CPA-DD section B.4 page 17.</p>	<p><input checked="" type="checkbox"/> CPA-DD has been updated to include the project boundary.</p>

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<p><b><u>Corrective Action Request No.8.</u></b> Please include methane emissions from composting process as the source of emission. Also please include CO2 emissions from electricity consumption as an emission source in table 6 of CPA-DD</p>	B.4.1	<p>Methane emissions during composting process have been included in the CPA-DD section B.4 page 18 Methane emissions from electricity consumption have been included in the CPA-DD table 6 section B.4 page 18.</p>	<p><input checked="" type="checkbox"/> Table 5 has been updated to include emissions from composting &amp; electricity.</p>
<p><b><u>Corrective Action Request No.9.</u></b> Please justify the value assumed for <math>MD_{y,reg}</math> with some evidence</p>	B.5.1.3.1	<p>Current regulations in the host country do not require the capture and combustion of methane. There are no obligation to capture and combustion of methane in the project activities, among all laws and regulations linked to waste treatment in the palm oil sector in Indonesia. Value applied is 0.</p>	<p><input checked="" type="checkbox"/> Since there is no regulation in the host country for capture &amp; combustion, hence <math>MD_{y,reg}</math> as Zero is acceptable.</p>
<p><b><u>Clarification Request No. 15.</u></b> Please provide some evidences for proving the lagoons at baseline scenario for waste water treatment to be more than 2 m</p>	B.5.1.3.4	<p>Evidence for proving the lagoons at baseline scenario for wastewater treatment to be more than 2 m is the layout of lagoon systems at the palm oil mill. Documentary evidence has been submitted to DOE. (Relevant document: FMJ_Layout WWTP)  <b><u>Second Response:</u></b> Documentary evidence mentioned above has been submitted to DOE.</p>	<p><input checked="" type="checkbox"/> Please submit us the referred document for review. <b><u>Response from audit team:</u></b> It can be verified form the layout of WWTP that each the lagoon in the baseline scenario is more than 2m.</p>
<p><b><u>Clarification Request No. 16.</u></b> Please provide some documents to prove that the EFB was dumped at disposal site having depth more than 5 meters and/or high water table near ground level</p>	B.5.1.3.10	<p>There is no documentation available to prove that the EFB was dumped at disposal site having depth more than 5m. Only the photographs show the disposal site. Also this has been verified during onsite validation. Photograph evidences have been submitted to DOE. (Relevant documents: FMJ_Baseline Pics).</p>	<p><input checked="" type="checkbox"/> It was verified onsite that EFB was dumped at disposal site having depth more tha 5 meters, further the photographs have also been submitted &amp; verified.</p>

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<p><b><u>Clarification Request No. 17.</u></b> Please submit documents mentioned in footnote 8 to substantiate the choice of value for <math>K_j</math></p>	<p>B.5.1.3.12</p>	<p>A documentary evidence of the choice of <math>K_j</math> value has been submitted to DOE. (Relevant document: FMJ_Palm oil production through sustainable plantations)</p>	<p><input checked="" type="checkbox"/> Appropriate justification &amp; documents for choosing <math>K_j</math> value has been provided.</p>
<p><b><u>Corrective Action Request No.10.</u></b> The parameter <math>U_{b,baseline}</math> is not consistent throughout the CPA-DD. Please make the parameter consistent.</p>	<p>B.5.1.3.16</p>	<p>The parameter <math>U_{b,baseline}</math> has been revised to be consistent throughout the CPA-DD.</p>	<p><input checked="" type="checkbox"/> CPA-DD has been revised to make <math>U_{b,baseline}</math> parameter consistent throughout the CPA-DD</p>
<p><b><u>Corrective Action Request No.11.</u></b> Please mention the equation used for monitoring <math>BE_{CH_4,SWDS,y}</math> in CPA-DD. Further please provide the basis (as stated in ER sheet) for considering annual FFB consumption and EFB/FFB ratio</p>	<p>B.5.2.2</p>	<p>Equation used for monitoring <math>BE_{CH_4,SWDS,y}</math> has been included in the CPA-DD section B.5.2 page 23. Basis for considering annual FFB production is last 3 years historical data of the mill. Basis for EFB/FFB ratio of 0.5 is according to the scientific paper. The relevant documentary evidence has been submitted to DOE.</p> <p><b><u>Second Response:</u></b> All documentary requested have been submitted to DOE. File: MJIR_FFB process 2005-2008 has been revised to FMJ_FFB process 2007-2009.</p>	<p><input checked="" type="checkbox"/> CPA-DD has been updated to include computation of <math>BE_{CH_4,SWDS,y}</math>. Further, please provide us the following document referred in the emission reduction sheet:</p> <ul style="list-style-type: none"> <li>• File: FMJ_Decomposition and N &amp; K POM</li> <li>• File: FMJ_Paper PIPOC Schuchardt V2</li> <li>• File: MJIR_FFB process 2005-2008</li> </ul> <p><b><u>Response from audit team:</u></b> Appropriate documents for the default values assumed in the calculation of ER have been submitted &amp; verified.</p>

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<p><b><u>Corrective Action Request No.12.</u></b> Please update CPA-DD as per corrections suggested for PoA-DD (CAR 24, 25, 30, 32, 33 of PoA-DD).</p>	<p>B.5.2.3</p>	<p>CPA-DD has been updated as per corrections suggested for PoA-DD (CAR 24, 25, 30, 32, 33 of PoA-DD).</p> <p><b><u>Second Response:</u></b></p> <ol style="list-style-type: none"> <li>1. <math>PE_{y,runoff}</math> has been revised to be in line with the methodology.</li> <li>2. No diesel gensets would be used in the project activity for shredder, pumping system, ets, as all electricity generated by the biomass power plant from palm oil mill would be enough to supply the power to the whole activity. These two gensets only be used for start-up and back-up in case the boiler shutdown.</li> <li>3. Value for <math>FC_y</math> used in the calculation based on experience by PO using the same type of the machine and also estimation by the technology provider.</li> </ol> <p>The correct value is 100, and CPA-DD has been revised accordingly to be consistent.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Parameter <math>OT_{gen\_comp,y}</math> &amp; <math>CEF_{gen,y}</math> have been included in CPA-DD.</li> <li>- Confirmation of estimated value of <math>FC_y</math> has been submitted to DOE.</li> </ul> <p>(Relevant document: CB4 FMJ_Confirmation technical lifetime from Technology Provider)</p>	<p><input checked="" type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Parameters used in computation of <math>PE_{y,runoff}</math> is not in line with the methodology, please correct.</li> <li>• Please clarify whether the diesel genset (250 kW &amp; 400 kW) would be used to supply the power for shredding machine.</li> <li>• Please provide us the proper justification for assuming value for <math>FC_y</math>. Further, value of <math>FC_y</math> is inconsistent in the CPA-DD (value at pg 29 is 100 &amp; value at pg-34 is 150).</li> </ul> <p><b><u>Response from audit team:</u></b></p> <ul style="list-style-type: none"> <li>• <math>PE_{y,runoff}</math> has been updated in the CPA-DD as per applied methodology.</li> <li>• Since Diesel generator has been installed &amp; can be used as a backup source of power, therefore please update the CPA-DD to include <math>OT_{gen\_comp,y}</math> &amp; <math>CEF_{gen,y}</math></li> <li>• Please provide the documentary evidence to justify that this value (<math>FC_y</math>) has been estimated by the</li> </ul>
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			<p>technology provider.</p> <p><b>Final response by audit team:</b> The CPA-DD has been updated as per corrections suggested for PoA-DD (CAR 24, 25, 30, 32, 33 of PoA-DD). Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.13.</u></b> Please include the crediting years in table 8 (B.5.3) of CPA-DD.</p>	B.5.3.2	<p>The crediting years in table 7 of CPA-DD has been added.</p> <p><b><u>Second Response:</u></b> Crediting years of 2011-2017 have been added in the table 7.</p> <p><b><u>Third Response:</u></b> Table in section B.5.2 CPA-DD has been updated.</p>	<p><input checked="" type="checkbox"/></p> <p>Crediting years (2011, 2012..) are still not mentioned in table-7 of CPA-DD</p> <p><b><u>Response from audit team:</u></b> Section B.5.3 have been updated to include the crediting year, however table in section B.5.2 also needs to be updated.</p> <p><b><u>Final response by audit team:</u></b> The CPA-DD is updated to include the crediting years in table 8 (B.5.3) and also B.5.2 of CPA-DD. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.14.</u></b> Please correct the ex-ante estimation of emission reduction as per the revised starting date of crediting period.</p>	B.5.3.4	<p>The ex-ante estimation of emission reduction will not change as the start of the crediting period based on years 1, 2 and so on. Not specifically mentioned the months.</p>	<p><input checked="" type="checkbox"/></p> <p>Please refer to CAR-13</p> <p><b><u>Response from audit team:</u></b> Section B.5.3 have been up-</p>

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		<p><b><u>Second Response:</u></b> Crediting years of 2011-2017 have been added in the table 7.</p> <p><b><u>Third Response:</u></b> Table in section B.5.2 CPA-DD has been updated.</p>	<p>dated to include the crediting year, however table in section B.5.2 also needs to be updated.</p> <p><b><u>Final response by audit team:</u></b> The CPA-DD is updated with correct the ex-ante estimation of emission reduction in table 8 (B.5.3) and also B.5.2 of CPA-DD. Therefore the issue re-mains closed.</p>
<p><b><u>Corrective Action Request No.15.</u></b> Please include the operational and management structure as discussed on section B.6.1.</p>	<p>B.6.1.1</p>	<p>The operational and management structure has been added in the CPA-DD.</p> <p><b><u>Second Response:</u></b> The CPA-DD form in section B.6 has been revised to be in line with the methodology.</p> <p><b><u>Third Response:</u></b> CPA-DD has been revised to include page number as per CPA-DD form by EB.</p>	<p><input checked="" type="checkbox"/></p> <p>Please correct the CPA-DD form, B.6 section is not visible in the CPA-DD (CPA-DD directly shows B.6.1 instead of B.6).</p> <p><b><u>Response from audit team:</u></b> CPA-DD form needs more correction, page number in the CPA-DD form cannot be seen. Please correct the CPA-DD form as per form available in UNFCCC's website (<a href="http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html">http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html</a>)</p> <p><b><u>Final response by audit team:</u></b> The CPA-DD is updated to include the operational and man-</p>



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			agement structure as discussed on section B.6.1. Therefore the issue remains closed.
<p><b><u>Corrective Action Request No.16.</u></b> Please include monitoring parameter ELy, Electricity consumed by the project activity in the year y. Further please clarify whether the Biomass power plant used to export power to Grid in baseline scenario or in project scenario.</p>	B.6.1.5	<p>The project is not connected to the grid. Electricity consumed by the project generated by biomass power plant. There is no electricity export from the biomass power plant to the grid, as the mill is not connected to the grid.</p> <p><b><u>Second Response:</u></b> No diesel gensets would be used in the project activity for shredder, pumping system, etc, as all electricity generated by the biomass power plant from palm oil mill would be enough to supply the power to the whole activity.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Parameter <math>OT_{gen\_comp,y}</math> &amp; <math>CEF_{gen,y}</math> have been included in CPA-DD.</li> <li>- Confirmation of estimated value of FCy has been submitted to DOE.</li> </ul> <p>(Relevant document: CB4 FMJ_Confirmation technical lifetime from Technology Provider)</p>	<p><input checked="" type="checkbox"/> Please refer to CAR12</p> <p><b><u>Response from audit team:</u></b> Please refer to CAR-12. This issue shall be closed on satisfactory reply to CAR-12.</p> <p><b><u>Final response by audit team:</u></b> The CPA-DD has been updated to monitoring parameter Ely. It is also clarified that the biomass power plant do not export power to Grid in baseline scenario or in project. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.17.</u></b> Please include the following parameter in the monitoring plan:</p> <ul style="list-style-type: none"> <li>• 'Qy, Quantity of waste composted in the year "y" in the monitoring plan of PoA-DD</li> </ul>	B.6.1.5	<p>All these parameters have been included in the monitoring plan in CPA-DD section B.6.1 page 33.</p> <p><b><u>Second Response:</u></b> Methodology does not require monitoring parameters <math>BE_{CH4,SWDS,y}</math> &amp; <math>MEP_{y,ww}</math>. This requirement should be</p>	<p><input checked="" type="checkbox"/> Qy &amp; EFCO2 has been updated in the CPA-DD. However, <math>BE_{CH4,SWDS,y}</math> &amp; <math>MEP_{y,ww}</math> are still not included in the monitoring plan.</p>

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<ul style="list-style-type: none"> <li>• <math>EF_{CO_2}</math> - CO2 emission factor from fuel use due to transportation (kgCO2/km)</li> <li>• <math>BE_{CH_4,SWDS,y}</math> - yearly methane generation potential of the solid waste composted by the project during the years “x” from the beginning of the project activity (x=1) up to the year “y”</li> <li>• <math>MEP_{y,ww}</math> - Methane emission potential in the year “y” of the wastewater. The value of this term is zero if co-composting of wastewater is not included in the project.</li> </ul>		<p>checked at the beginning of the project activity (ex-ante).</p> <p><b>Third Response:</b>  <math>BE_{CH_4,SWDS,y}</math> &amp; <math>MEP_{y,ww}</math> have been included in the monitoring plan in CPA-DD section B.6.1 page 40.</p>	<p><b>Response from audit team:</b>                  These parameters are depended on the yearly EFB composted, hence required to be monitored.</p> <p><b>Final response by audit team:</b>                  All the requested parameters are included in the final monitoring plan. Therefore the issue remains closed.</p>
<p><b>Clarification Request No. 18.</b>                  Please provide the basis for POME/FFB and compost/EFB ratio as stated in the ER sheet.</p>	<p>B.6.1.9</p>	<p>Basis for POME/FFB and compost/EFB ratio according to the scientific papers. The relevant documentary evidences have been submitted to DOE.                  (Relevant documents: Paper PIPOC Schuchardt V2 and CTE_15_Schuchardt_Compos).</p> <p><b>Second Response:</b>                  Documentary evidence mentioned above has been submitted to DOE.</p> <p><b>Third Response:</b>                  Fetty Mina Jaya is a conventional palm oil mill where it does not use an advanced oil separation technologies in the process. POME accounts for about 0.65m3 POME/ton FFB. This has been updated in PoA DD section A.2 page 3.</p>	<p><input checked="" type="checkbox"/></p> <p>Compost/EFB has been verified from “CTE_15_Schuchardt_Compos”, however please provide us the documentary evidence for POME/FFB ratio (footnote 5 of CPA-DD).</p> <p><b>Response from audit team:</b>                  As per provided attachment, “effect of new palm oil.....”, there is 0.65m3 POME/ton FFB processed for conventional processing of FFB, please clarify which kind of processing does the CPA have (because for non conventional plants the</p>

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			<p>document shows 0.45 &amp; 0.25 m3 POME/ton FFB).</p> <p><b>Final response by audit team:</b> Compost/ EFB ratio of 0.5 used is justified based on a relevant study “Effect of new palm oil mill processes on the EFB and POME utilisation”. Also based on the evidence (a publication by F. Schuchardt <i>et al</i>) submitted “Effect of new palm oil mill processes on the EFB and POME utilization” which is more related to the project situation it can be concluded that 0.65m3 POME/ton FFB is applicable for the project. Therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.18.</u></b> Please include monitoring frequency for COD<sub>y,ww,untreated</sub> . Further please provide us the basis for considering 24.73 kg/m3 for ex-ante computation.</p>	<p>B.6.1.8</p>	<p>Monitoring frequency for COD<sub>y,ww,untreated</sub> has been included in the CPA-DD. Basis for value 24.73 kg/m3 is based on last measurement 24.73 kg/m3 from third party laboratory on 30/11/09. Documentary evidence has been submitted to DOE. (Relevant document: FMJ_COD Inlet).</p> <p><b><u>Second Response:</u></b> Before the project activity, COD test only conducted in the outlet of the last lagoons to be discharged to the river as per regulation. No COD inlet needed to be done. COD</p>	<p><input checked="" type="checkbox"/></p> <p>Monitoring frequency of has been added in the revised CPA-DD. Please justify how one sample value of COD provided (for 30<sup>th</sup> nov’09) is representative for baseline calculation.</p> <p><b><u>Response from audit team:</u></b> Please justify how one value of COD provided is representative</p>

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		<p>value on 30<sup>th</sup> Nov 2009 was done for CDM project purposed for ex-ante calculation. COD inlet will be monitored throughout the crediting period.</p> <p><b><u>Third Response:</u></b> PP is doing 10 days measurement campaign of COD, lab test result have been submitted to DOE.</p> <p><b><u>Fourth Response:</u></b> 10 Days measurement have been performed and ER calculation has been adopted accordingly (relevant document: DF1 FMJ lagoon COD test)</p>	<p>for the baseline calculation.</p> <p><b><u>Response by audit team:</u></b> There was no document providing 10 days measurement campaign of COD- lab test result to support use of 0.02473 t/m<sup>3</sup>. Therefore the issue remains still open.</p> <p><b><u>Final response by audit team:</u></b> Concerned monitoring frequency of has been added in the revised CPA-DD. Furthermore the basis for considering 0.052 t/m<sup>3</sup> for ex-ante computation has been stated to be 10 days measurement campaign. Relevant lab test results have been submitted to DOE. Therefore the issue can be closed.</p>
<p><b><u>Clarification Request No. 19.</u></b> As per the methodology, annual amount of fossil fuel needs to be monitored, however the CPA-DD considers data from invoices, please clarify.</p>	<p>B.6.1.15</p>	<p>Annual amount of fossil fuel will be monitored by a fuel tank with indicator or flow meter. A logbook will be maintained on site to record daily readings and the data will be aggregated. CPA-DD has been revised accordingly.</p> <p><b><u>Second Response:</u></b> Please see CAR 12 above for the explanation.</p>	<p><input checked="" type="checkbox"/></p> <p>CPA-DD has been revised to include monitoring procedures. Further, please refer to CAR 12</p> <p><b><u>Response from audit team:</u></b> Please refer to CAR-12.</p>

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		<p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Parameter <math>OT_{gen,comp,y}</math> &amp; <math>CEF_{gen,y}</math> have been included in CPA-DD.</li> <li>- Confirmation of estimated value of FCy has been submitted to DOE.</li> </ul> <p>(Relevant document: CB4 FMJ_Confirmation technical lifetime from Technology Provider)</p>	<p><b><u>Final response by audit team:</u></b></p> <p>The use of fuel tank with indicator or flow meter and logbook for monitoring annual amount of fossil fuel can be accepted. Therefore the issue remains closed.</p>
<p><b><u>Clarification Request No. 20.</u></b> Please provide us the basis for input values taken for ex-ante computation of ER (DAFcomp, CTy,comp )</p>	<p>B.6.1.17</p>	<ul style="list-style-type: none"> <li>- The basis for input values taken for ex-ante computation of ER (DAFcomp) is based on assumption the average distance of compost application by the compost user. The compost user has the plantation with the average distance of 100 km where the compost to be applied.</li> <li>- The basis for input values taken for ex-ante computation of ER (CTy,comp) is based on typical truck used in the palm oil mill. The CPA will use the same type of truck.</li> </ul> <p><b><u>Second Response:</u></b> <math>CT_{y,compost}</math> are typical truck to be used in the project activity. This parameter will be monitored.</p> <p><b><u>Third Response:</u></b> The basis for input values taken for ex-ante computation of ER (CTy,comp) is based on assumption the truck to be used in project activity will be similar to the truck used in the palm oil mill. The CPA will use the same type of</p>	<p><input checked="" type="checkbox"/></p> <p>It has been transparently described in CPA-DD that the maximum return distance shall be 100 Km. However please provide proper justification for CTy,comp</p> <p><b><u>Response from audit team:</u></b> For <math>CT_{y,comp}</math> : Please provide us the recorded data of the typical truck used in the palm oil mill.</p> <p><b><u>Final response by audit team:</u></b> The justification provided for use of input values taken for ex-ante computation of ER (DAFcomp, CTy,comp ) is acceptable. Therefore the issue remains closed.</p>

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<p><b><u>Corrective Action Request No.19.</u></b> Please include the parameter to monitor the energy consumption in the project activity (ex: for aeration, turning of compost piles, pre-processing of biomass, drying of final compost product, etc.)</p>	<p>B.6.1.19</p>	<p>truck.</p> <p>Parameter FCy has included the energy consumption in the project activity.</p> <p><b><u>Second Response:</u></b> Please see CAR 12 above for the explanation.</p> <p><b><u>Third Response:</u></b></p> <ul style="list-style-type: none"> <li>- Confirmation of estimated value of FCy has been submitted to DOE. (Relevant document: CB4 FMJ_Confirmation technical lifetime from Technology Provider)</li> </ul>	<p><input checked="" type="checkbox"/></p> <p>Please refer to CAR-12.</p> <p><b><u>Response from audit team:</u></b> Please refer to CAR-12.</p> <p><b><u>Final response by audit team:</u></b> The parameters to monitor energy consumption in the project activity are included in the final monitoring plan. Therefore the issue remains closed.</p>
<p><b><u>Clarification Request No. 21.</u></b> Please clarify what kind of sampling measures are being taken to ensure maximum margin of error of 10% at a 95% confidence level for this parameter (oxygen level in the compost).</p>	<p>B.6.1.22</p>	<p>This has been included in the CPA-DD section B.6.1 page 35.</p> <p><b><u>Second Response:</u></b> This parameter has been updated to include the information on how error cannot be more than 10% at a 95% confidence level. Detail of the procedure will be provided in the QA/QC procedure.</p> <p><b><u>Third Response:</u></b> This parameter have been revised as per methodology, using IPCC default value of 4 gr.CH4 / ton wet waste, therefore excluding compost sampling procedures.</p>	<p><input checked="" type="checkbox"/></p> <p>The revision in section B.6.1 is still not including the information on how error cannot be more than 10% at a 95% confidence level. Please provide proper justification on the same.</p> <p><b><u>Response from audit team:</u></b> Please provide us the detailed QA/QC procedure referred in the response.</p> <p><b><u>Further response by audit</u></b></p>

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		<p>ER calc and documentation have been revised : CPA-DD page 24, 31 PoA-DD page 33, 39</p> <p><b><u>Fourth Response:</u></b> EF<sub>composting</sub> = 4 gr CH4 / kg waste (wet weight) was applied as per methodology (paragraph 14) for PE<sub>y,comp</sub> calculation, to provide default value In case oxygen content of the composting process is NOT monitored.</p>	<p><b><u>team:</u></b> How is “IPCC default value of 4 gr.CH4 / ton wet waste” related to oxygen level in the compost and its QA/QC procedure? Provide more explanation.</p> <p><b><u>Final response by audit team:</u></b> The parameter has been revised and choice of IPCC default value of 4 gr.CH4 / kg wet waste when oxygen content of the composting process is not monitored, can be accepted as per methodology.</p>
<p><b><u>Clarification Request No. 22.</u></b> Please include which kind of verification would be carried out and at which interval to ensure aerobic condition of compost sold</p>	<p>B.6.1.25</p>	<p>This has been included in the CPA-DD section B.6.1 page 36.</p> <p><b><u>Second Response:</u></b> This parameter has been updated to include appropriate sampling plan &amp; interval for verification of compost application in section B.6.1.</p>	<p><input checked="" type="checkbox"/></p> <p>CPA-DD is still not updated to include appropriate sampling plan &amp; interval for verification of compost application.</p> <p><b><u>Response from audit team:</u></b> Appropriate verification plan for soil application have been documented in the CPA-DD</p>
<p><b><u>Corrective Action Request No.20.</u></b> Please submit us the Government Regulation which states that composting plant shall not require an EIA. Further as stated in CPA-DD, please provide us the Environmental man-</p>	<p>C.1.2</p>	<p>The Government Regulation which states that composting plant shall not require an EIA has been submitted to DOE together with the environmental management and monitoring plan. (Relevant documents: FMJ_PP No 11/2006).</p>	<p><input checked="" type="checkbox"/></p> <p>The required government regulation has been provided &amp; verified, however please provide us the EMMP.</p>



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<p>agement and monitoring plan</p>		<p><b><u>Second Response:</u></b> Documentary evidence mentioned above has been submitted to DOE.</p> <p><b><u>Third Response:</u></b> Summary of documentary evidence “CD2 Decree Minister of Environment_No_11_Year_2006 EIA” has been submitted to DOE. (Relevant document: CD2 Decree Minister of Environment_No_11_Year_2006 EIA).</p>	<p><b><u>Response from audit team:</u></b> Please submit the English translation or summary of the referred document.</p> <p><b><u>Final response by audit team:</u></b> Government Regulation which states that composting plant shall not require an EIA and the Environmental management and monitoring plan has been provided to the DOE. The same is acceptable and therefore the issue remains closed.</p>
<p><b><u>Corrective Action Request No.21.</u></b> Please include in section D.2 of CPA-DD as to how stakeholders were invited for the Local stakeholder meeting.</p>	<p>D.1.1</p>	<p>The stakeholder were invited via letter and fax at least a week before the event. This information has been added in the CPA-DD section D.2.</p> <p><b><u>Second Response:</u></b> Documentary evidence mentioned above has been submitted to DOE.</p> <p><b><u>Third Response:</u></b> Documentary evidence of invitation letter has been submitted to DOE. (Relevant document: CA9 FMJ_Invitation SC).</p>	<p><input checked="" type="checkbox"/> Please provide us the stakeholder documents (soft copy of the documents is still not provided).</p> <p><b><u>Response from audit team:</u></b> Relevant stakeholder documents like the evidence of invitation should be submitted to DOE. Based on the Please include in section D.2 of CPA-DD as to how stakeholders were invited for the Local stakeholder meet-</p>



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			<p>ing.</p> <p><b>Final response by audit team:</b> Section D.2 of the CPA-DD has been updated to include the relevant information on stakeholder invitation. The stakeholder process is also witnessed from the invitation letter addressed to the local village (Minas Timur). Therefore the issue remains closed.</p>
<p><b>Clarification Request No. 23.</b> Please provide documentary evidences for the stakeholder meeting conducted at CPA-level (invitations, minutes, attendance sheet, etc)</p>	<p>D.1.1</p>	<p>Documentary evidences for the stakeholder meeting have been submitted to DOE. Relevant document: FMJ_SC Report EcoSecurities)</p> <p><b>Second Response:</b> Documentary evidence mentioned above has been submitted to DOE. (Relevant document: FMJ_Invitation SC).</p> <p><b>Third Response:</b> Documentary evidence mentioned above has been submitted to DOE. (Relevant document: CA9 FMJ_Invitation SC).</p>	<p><input checked="" type="checkbox"/></p> <p>Documentary evidences for stakeholder meeting have still not been submitted to the audit team.</p> <p><b>Response from audit team:</b> Please refer to CAR-21 above. This issue shall be closed based on satisfactory response to CAR 21 above.</p> <p><b>Final response by audit team:</b> Section D.2 of the CPA-DD has been updated to include the relevant information on stakeholder invitation. The stakeholder process is also witnessed</p>

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			from the invitation letter addressed to the local village (Minas Timur). Therefore the issue remains closed.
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**Table 3 Resolution of Corrective Action Requests out of TR**

Clarifications and corrective action re-quests by validation team	Ref. to PDD	Summary of programme activity implementer's response	Validation team Conclusion
<b><u>Corrective Action Request No.1.</u></b> Explain abbreviations 1st time for the reader; eg. CPO.	A.2	OK, revised accordingly	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.2.</u></b> Referring to a statement "POME is treated in a standard wastewater treatment system using 8 (eight) anaerobic and aerobic lagoons, sized to treat the palm oil mill wastewater, within legal limits, before final discharge to the river."- the number of aerobic lagoons could be still mentioned here (or are there 8 anaerobic and aerobic lagoons altogether - in this latter case please mention how many of the 8 are anaerobic and how many aerobic).	A.2	The baseline wastewater system is a typical anaerobic open lagoon wastewater treatment system without biogas recovery as applied in most of agricultural industries in South East Asia to treat their wastewater. The same has been validated during the on-site visit of the DOE. As such it has been defined now to avoid confusion.	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.3.</u></b> Indicate "Longitude"/"Latitude" for the geographical coordinates of the project activity at Fetty Mina Jaya are.	A.4	OK, revised in CPA-DD, with Latitude and Longitude indication. Format has been changed in PoA-DD as well  mill manager office: N 0.65017, E 101.48669 palm oil mill : N 0.64897, E 101.48554	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.4.</u></b> For the year 2012 according to the excel file it is 17,440 and not 17,140. Should be consistent. Check this also at table 7 in B.5.3.	A.4.4	OK, revised in CPA-DD Table 2 and Table 7. Further, year 2012 has been changed to 2013 as registration and therefore crediting period is expected to start late 2011/start 2012. (year 2013 value is 17,440)	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.5.</u></b> Refer to table in B.2: 1. Eligibility criteria is partly not consistent with the PoA-DD; please revise;	B.2	1. OK, revised eligibility criteria in CPA-DD is now consistent with PoA-DD.  2. OK, revised Fetty Mina Jaya co-composting is a	<input checked="" type="checkbox"/>

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<p>2. When you say – “Fetty Mina Jaya is a greenfield project”. Greenfield project should refer to the co-composting project (because the palm oil mill of course already existed before). please revise;</p> <p>3. Criterion number iv is not criterion of the PoA-DD. please revise;</p> <p>4. Regarding vi- “Fetty Mina Jaya palm oil mill is currently treating the POME in 8 (eight) anaerobic and aerobic ponds without biogas recovery systems. The number of aerobic lagoons could be still mentioned here (or are there 8 anaerobic and aerobic lagoons altogether - in this latter case please mention how many of the 8 are anaerobic and how many aerobic).</p> <p>5. Regarding x- “must have a project start date after the 22 December 2009 or be one the 7 composting projects for which validation has been terminated (CDM projects with reference numbers: 2077, 2080, 2685, 2836, 2885, 2886 and 2755)”. a) is not criterion of the PoA-DD. b) either the projects with these reference numbers are Chinese projects or do not exist as per UNFCCC website; 2685 is a registered Chinese project!</p> <p>6. Regarding xi- “the maximum distance for transporting the raw material for the composting process by the CPA is 200 km.”- see CAR in the PoA-DD.</p>	<p>Greenfield project <input checked="" type="checkbox"/></p> <p>3. OK, revised criterion (iv) is removed from CPA-DD</p> <p>4. The baseline wastewater system is a typical anaerobic open lagoon wastewater treatment system without biogas recovery as applied in most of agricultural industries in South East Asia to treat their wastewater. The same has been validated during the on-site visit of the DOE. As such it has been defined now to avoid confusion.</p> <p>5. OK, revised criterion (x) is removed from CPA-DD</p> <p>6. AMS III.F, vs.8, paragraph 7, refers to the waste utilized (i.e. EFB, POME) and states 200 km as maximum distance. Hence, the criterion is kept unchanged. The distance is made clear in the CPA-DD already stating less then 1km.</p> <p>7. It is a common practice in the Sumatra to dispose off the EFB in a solid waste disposal site as incineration is forbidden and mulching of EFB lacks of benefits and is bound to high transportation costs. (see document: Confirmation_letter_Darnoko_EFB_landfill)</p> <p>8.a. AMS-III.F paragraph 7 stated “distance to transporting waste utilized by the project activity”, therefore it applies to the solid waste used as raw material for the project activity, and that paragraph does not give any indication to the compost product Hence CPA-DD is not revised to this matter.</p> <p>8.b. OK, CPA-DD is revised</p>	
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<p>7. Regarding III.F table- Please inform here the data source for the statement- "It is a common practice in the region to dispose off the EFB in a solid waste disposal site as more than 60% of palm oil mill in Indonesia treated the EFB in a landfill area."</p> <p>8. Regarding statement "The disposal site is located leans palm oil mill and the project activity."- (a) what ´s about the plantations where compost is applied? Please add a few words here; (b) with "disposal site" is it referred to the landfill (in the baseline scenario); please make it clear for the reader;</p> <p>9. Regarding statement "All EFB from the palm oil mill is dumped in a landfill leaning against the palm oil mill. The EFB disposed in the landfill is not burned or used for other applications. It is dumped and left to decay indefinitely, the landfill cannot therefore be considered as a stockpile of EFB." – Is EFB already dumped in the past not used in the project activity but just "new" EFB resulting from the process after implementation of the project; please confirm here;</p> <p>10. "No storage under anaerobic conditions and/or delivered to a landfill of compost produced involved in the project activity"- ...and no delivery to a landfill...Please confirm.</p>		<p>9. EFB was also dumped in the past, which has been validated during the on-site visit of the DOE (check of the existing landfill).</p> <p>10. OK, CPA-DD is revised</p>	
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<p><b><u>Corrective Action Request No.6.</u></b></p> <ol style="list-style-type: none"> <li>1. Please update chapter B.3 as per the generic CPA-DD template;</li> <li>2. Again- 2685- is the Reg N° of a Chinese project thus not clear what this number wants to tell the reader?</li> <li>3. When it is stated that contractual agreement with PT. Fetty Mina Jaya on 6 November 2009 was this in 2008 and not 2009!</li> <li>4. Please explain the abbreviation EPC.</li> <li>5. Regarding EPC contractor signing agreement with EPC contractor on 6<sup>th</sup> March 2009- please add whether Fetty Mina committed itself to significant financial expenditures (as per CDM Glossary of Terms, version 05) with the agreement with the EPC contractor.</li> <li>6. Under pre-tax project IRR calculation (above table 4)- the date of investment decision should be mentioned. Also within table 4- investment decision date should be added as per the generic template;</li> <li>7. Within table 4- assumption of compost production of 50% of EFB processed. Is this figure reasonable based on the installed capacity specified by manufacturer? (see PoA-DD and CPA-DD (generic template)).</li> <li>8. Regarding agreement with compost buyer and technology providers confirmation on technical life- both documents are dated after the investment decision date (March</li> </ol>	<p>B.3</p>	<ol style="list-style-type: none"> <li>1. OK, revised accordingly.</li> <li>2. See CAR 5 point #5 above, revised as criterion (x) is removed from CPA-DD</li> <li>3. OK, revised section B.3 “6 November 2008”</li> <li>4. EPC is commonly used term for Engineering Procurement Construction, but to avoid further misunderstanding section B.3 is revised from “EPC contractor” into “technology provider and contractor”, which were the same</li> <li>5. OK, revised section B.3 “therefore committed to significant expenditures for development of the co-composting project”</li> <li>7. Investment decision is now mentioned and remains 6 March 2009. It is Prime Directors sole decision. The investment decision date is considered as the date when contracts with technology provider and contractor have been signed, after consulting the feasibility study. Board decision as such doesn’t exist as such investment decision is directors sole choice. The signing of the contract with the technology provider and contractor seems as appropriate date of investment decision. Besides the already submitted documents a company chart is provided to show the sole decision power of the Fetty Mina’s Prime Director. (see document: FMJ_company_chart)</li> <li>8. All of the EFB is actually processed in the composting facility. The 50% expresses the compost to EFB ratio. The compost amount is derived from the historical FFB</li> </ol>	<p><input checked="" type="checkbox"/></p>
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<p>2009), so how is this in compliance with paragraph 6 of EB62, Annex 5 that "Input values used in all investment analysis should be valid and applicable at the time of investment decision taken by the PP"??</p> <p>9. Regarding the statement (see below table 4)- "As a consequence, the fair value of any project activity assets at the end of the assessment is considered as null". The book value of the asset is zero if fully depreciated, but what is the reasonable expectation of the potential profit on the realization of the assets? (see Guidance 4 of the Guidelines on investment analysis); (please see also for POA-DD (real case and generic case)</p> <p>10. Regarding the statement (see below table 4)- "It is estimated that the investment required to build the composting plant will be IDR 15,138,375,000". In the table 4 and in the IRR excel file total investment is stated to be 14,823,375 (including overheads); please explain this inconsistency;</p> <p>11. Regarding benchmark 14.52% taken from March 2009- (a) it should be justified why commercial lending rate has been taken from March 2009 and why investment decision date can be considered March 2009; (b) it should be justified why the (interest rate for investment loans of private national banks has been used for</p>	<p>processed multiplied by the EFB/FFB ratio of 22% and the compost/EFB ratio of 50% (see emission reduction workbook, Input Data sheet, cell L10 and following). For the IRR calculation the actual value of the feasibility study is taken (12,000 t compost/year). For further cross-checks see IRR workbook, input data sheet, cell E22. For the ER calculation actual historical FFB processing values are taken from the year 2008 arriving with 11,745 t compost/year. Wording in the CPA-DD has been revised.</p> <p>9. An MoU for the compost price has been in place before the investment decision. The actual technical lifetime of the equipment has been requested especially to determine the IRR analysis according to guidelines of the UNFCCC. The investment decision has been taken without a document stating an exact number for the technical lifetime of the equipment. (see document: MoU_compost_buyer FMJ combined)</p> <p>10. The assets within a co-composting facility consist of truck, shredder, turning machine. The concrete floor can't be considered as asset as it is not movable. According to Indonesian accounting standards assets related to agriculture/plantation are classified as group II and depreciated within 8 years. The underlying assets can be considered as similar and hence all assets within any CPA of the PoA are depreciated within 8 years. Accounting wise the assets are expected to not generate any revenues after 8 years of operation. There are no accounting regulations on the realization of the assets. However, depreciation takes place within 8 years and the min. period of performing the IRR calculation is 10 years. After 8 years, the lifetime</p>	
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<p>"the benchmark and not the lower interest rate for investment loans of commercial banks/regional government banks/State banks etc;</p> <p>12. Reference at footnote number 13 has to be updated.</p> <p>13. Look at table 5, Sensitivity analysis- "Moreover, between 2000 and 2009 inflation rates in Indonesia have ranged from a low of 3.8% in 2000 to a high of 13.1% in 2006 – much below the variation required to hit the benchmark. This option shall be discarded"- This argumentation is not logical once with inflationary prices investment costs would even rise (and not decrease to hit the benchmark) - on the contrary, deflation would be necessary; (also check this in the O&amp;M box.</p> <p>14. At O&amp;M of -10%, variation that hits the benchmark is not 52% (with 52% the IRR is actually 14.11%). Clarify this case.</p> <p>15. At compost price +10%, variation that hits the benchmark is not 49% (with 49% the IRR is actually 14.27%). Clarify this case.</p> <p>16. In the box for compost price +10%- why is it referred to an increase of 20% if a 49% increase is necessary to hit the benchmark?</p> <p>17. In the box for compost production +10%- Is this confirmed by the manufacturer that a 49% rise in compost production volumes cannot occur in the absence of</p>		<p>of the equipment is accounting wise expected to be over. Hence, the realization of the asset is calculated by the value of the asset material (i.e. mainly steel) and the cost of transportation. Due to remote locations of the palm oil mills, transportation costs are considered as fairly high, equalizing or even exceeding the potential revenues from selling the asset. If small profits or losses would be generated with the realization of the assets, such would affect the overall IRR on a minimal base as it is added in the last year of the IRR analysis period. Wording has been revised in the CPA-DD.</p> <p>(see document (google translate helps for further understanding):          Depreciation_group,  <i>Annex II: Types of Tangible Assets which are Included in the Group II</i>  <i>No. 2 of Annex II: Agriculture, forestry, plantation, fishery;</i>          Depreciation_period,  <i>Article 11 – Clause 6 – Group II: 8 Years)</i></p> <p>11. The higher value included all costs. For the revised analysis, of which one value has been forgotten to be updated, total costs within Feasibility Study without CDM related costs (item 19, 20 of FSR) and excluding overhead (item 22) are considered. Please refer to the input sheet of the IRR analysis workbook</p> <p>12a) Please refer to answer under point 7 of the same CAR.</p> <p>12b) National bank is the preferred loan provider and therefore taken as interest rate benchmark. Commercial banks in Indonesia are usually only locally represented. A</p>	
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<p>increased investments in the capacity of the composting plant?</p> <p>18. Concerning footnote 18- Is there no more recent document? 2006 was already 5 years ago and the situation might have changed in the meantime;</p>	<p>wider spread companies like Fetty Mina prefer one bank for all business transactions for which Indonesian commercial banks are not suitable. Governmental banks are considered as rather slow in the decision taking process and hence as well not suitable for a company like Fetty Mina. However, in order to close the CAR in an efficient manner the lowest benchmark of the above three options is now applied in the CPA-DD. See “Loan” sheet in the IRR workbook.</p> <p>13. Reference has been updated to version 5 (now footnote 21)</p> <p>14. OK, revised into “...and there was no deflation (which can reduce investment costs).”, also in the O&amp;M box revised into “...(there was no deflation) are unlikely to account for reduction in O&amp;M costs.”</p> <p>15. The values has been revised completely due to the revised compost production of 12,000 t/year</p> <p>16. The values has been revised completely due to the revised compost production of 12,000 t/year</p> <p>17. The values has been revised completely due to the revised compost production of 12,000 t/year</p> <p>18. The current mill capacity is 30 t/h. Hence, the feasibility study for the composting activity is based on the 30 t/h mill capacity and can't be enlarged. Transporting EFB and/or POME for co-composting purposes over a longer distance would not be feasible considering the costs associated to it. (see document: FMJ_palm_oil_mill_permit, FMJ_feasibility</p>	
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		study_translate)  19. Newer reference from year 2010 has been provided as footnote in addition confirming no increase in fertilizer price. "Mentan : Tak ada kenaikan harga eceran tertinggi pupuk" means "Agriculture Minister: No increase in the highest retail price of fertilizer"	
<p><b><u>Corrective Action Request No.7.</u></b> Look at table 6: at electricity- regarding Use of electricity. "All the electricity generated by the biomass power plant to run the auxiliary equipments e.g. pumps, lighting, shredder/grinder and mixer is considered carbon neutral" In other parts of the document it is mentioned that there is no auxiliary equipment; please clarify this inconsistency;</p>	B.4	OK, revised parameter $P_{gen,y}$ of the equation for $PE_{gen,y}$ , total capacity of auxiliary equipment is ... kW, consists of .....	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No.8.</u></b> Look at section B.5.1: 1. <math>MCF_{ww, treatment}</math>- I shall be "methane correction factor" and not "methane conversion factor". Please correct. 2. f - is a monitored parameter and should be taken out from B.5.1. 3. <math>EF_{co2}</math>- calculation does not finally result in 0.46; please revise; 4. <math>\eta_{machine,skidloader}</math>- obviously the 2<sup>nd</sup> option has been chosen (as per the excel file); please make that clear; 5. <math>\eta_{machine,turning}</math>- obviously the 2<sup>nd</sup> option has been chosen (as per the excel file); please make that clear;</p>	B.5.1	<p>1. OK, revised into "correction"</p> <p>2. OK, revised parameter f is taken out from B.5.1</p> <p>3. OK, revised calculation from  <math>(0.175 * 0.8425)/3.185 = 0.46</math> into  <math>(0.175 * 0.8425) * 3.185 / 1000 = 0.00047</math>                      unit of this parameter was adjusted, from kg.CO<sub>2</sub>/km into t.CO<sub>2</sub>/km</p> <p>4. Page 23, 24, 31 of the CPA-DD has been revised. Option 2: Diesel fuel consumption rate per hour has been chosen</p> <p>5. Page 23, 24, 31 of the CPA-DD has been revised. Option 2: Diesel fuel consumption rate per hour has been chosen</p>	<input checked="" type="checkbox"/>

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<p><b><u>Corrective Action Request No.9.</u></b> Regarding “Baseline information for the combined margin emission factor is publicly available in the Indonesian DNA website.” this is not relevant for the project activity as the combined margin EF is not used in the project activity;</p>	B.5.2	OK, revised that sentence is removed	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No.10.</u></b> Regarding BEy formula under baseline emissions- not consistent with the generic template.</p>	B.5.2	OK, revised according to the Generic CPA-DD template	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No.11.</u></b> 1. Under Project Activity emissions- at EFco2- the value 0.0009 is not consistent with the applied value in the ER excel file. 2. Against description for DAFw- text is not consistent with the generic template 3. Against description for P<sub>gen,y</sub>- not clear why there should be "no auxiliary equipment" once the project uses shredder, pumps etc. Please clarify;</p>	B.5.2	<p>1. OK, revised value into 0.00047 (or in excel file was shown rounded up into 0.0005)</p> <p>2. OK, revised text</p> <p>3. Please see answer of CAR 7</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No.12.</u></b> 1. Description of measurement methods and procedures to be applied for COD<sub>y,ww,untreated</sub>: COD samples will be measured monthly by an accredited third party laboratory- please elaborate how "representative sampling" as per the methodology is ensured; 2. Value of data for COD<sub>y,ww,runoff</sub> - is</p>	B.6.1	<p>1. COD values of the wastewater in a mill won't vary over the year as palm oil production process doesn't change. Hence, one COD test a month by an independent third party laboratory is considered as representative. Further it is in line with the government regulation of effluent COD measurement frequency and has been accepted on by the UNFCCC on now already registered PDDs applying the same methodology and version. Wording has been provided in the CPA-DD</p>	<input checked="" type="checkbox"/>

## Validation Protocol CDM-SSC-CPA-DD

CPA Title:

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<p>0.05176 the average of actual measurement data of a certain period? Please inform;</p> <p>3. Value of data (0) applied for the purpose of calculating expected emission reductions in section B.5 (<math>P_{gen,y}</math>)- not clear why there should be "no auxiliary equipment" once the project uses shredder, pumps etc. Please clarify;</p> <p>4. Value of data (2000) applied for the purpose of calculating expected emission reductions in section B.5 (<math>OT_{machine,skidloader,y}</math>) - how was this value determined? Please inform;</p> <p>5. Value of data (2000) applied for the purpose of calculating expected emission reductions in section B.5 (<math>OT_{machine,turning,y}</math>) - how was this value determined? Please inform;</p> <p>6. Value of data (100) applied for the purpose of calculating expected emission reductions in section B.5 (<math>DAF_{comp}</math>) - how was this value determined? Please inform;</p> <p>7. Value of data (8) applied for the purpose of calculating expected emission reductions in section B.5 (<math>CT_{y,comp}</math>) - how was this value determined? Please inform;</p> <p>8. Temperature and moisture of the compost is missing from B.6.1; According to paragraph 33 of the applied methodology "in case of composting facilities, its operation shall be documented in a</p>	<p>(see document: Ministerial Decree no.51/1999)</p> <p>2. It is the same value as taken for <math>COD_{y,ww,untreated}</math>, to be conservative in determining the ex-ante emission reduction. <math>COD_{y,ww,untreated}</math> is based on a 10 day COD measurement campaign as requested by the methodology. (see document: DF1 FMJ lagoon COD test)</p> <p>3. <math>P_{gen,y}</math> in section B.6.1 has been revised, explaining the applicability of the applied 0 MW for the ex-ante emission reduction.</p> <p>4. 3 hours operation in the morning and in the evening is assumed with 300 days operating of the facility per year. There is no underlying evidence for such as the operation has not yet started. The 1800 hours have been rounded to 2000.</p> <p>5. 3 hours operation in the morning and in the evening is assumed with 300 days operating of the facility per year. There is no underlying evidence for such as the operation has not yet started. The 1800 hours have been rounded to 2000 hours to be conservative.</p> <p>6. As no compost is produced/distributed/sold yet, actual values don't exist. Due to the high demand within around the palm oil mill, 100 km is chosen as conservative value. The area is known as agricultural fertile land. In reality it will be rather 20-50km.</p> <p>7. Value 8 t/truck is assumed based on the supplier offer for trucks. The truck type stated, FE74-S / FE74-HD, seems</p>	
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<p>quality control program, monitoring the conditions and procedures that ensure the aerobic condition of the waste during the composting process";</p> <p>9. Description of measurement methods and procedures to be applied for "Oxygen Level in the compost"- please make clear that sampling will ensure a maximum margin of error of 10% at a 95% confidence level;</p> <p>10. Source of data to be used for <math>BE_{CH_4, SWDS, y}</math> and <math>MEP_{y, ww}</math> - there is no baseline "a" or baseline "b" in the excel file; please clarify. Also value of data (3,537 &amp; 5,439)- It should rather refer to the ER excel calculation file; just to mention the value of 2011 is not very meaningful;</p> <p>11. According to paragraph 33 of the applied methodology "in case of composting facilities, its operation shall be documented in a quality control program, monitoring the conditions and procedures that ensure the aerobic condition of the waste during the composting process"; include information on this in B.6.1.</p> <p>12. Within the PoA-DD (parameter <math>Q_{y, ww, in}</math>) refers to "anaerobic pond" in the project activity – how is it ensured that no methane emissions occur?</p>	<p>not to have a capacity larger the 8 tonnes. The effective capacity will be monitored whenever operation has started. (see document: FMJ_composting_offering_supliers and link:  <a href="http://srikandijakarta.blogspot.com/2011/02/mitsubishi-fe-74-s-125-ps-6-ban.html">http://srikandijakarta.blogspot.com/2011/02/mitsubishi-fe-74-s-125-ps-6-ban.html</a>  <a href="http://srikandijakarta.blogspot.com/2011/02/mitsubishi-fe-74-hd-125-ps-6-ban.html">http://srikandijakarta.blogspot.com/2011/02/mitsubishi-fe-74-hd-125-ps-6-ban.html</a>)</p> <p>8. (same for point 7 below) Parameter for monitoring the quality control program, monitoring the conditions and procedures that ensure the aerobic condition of the waste during the composting process, is added in section B.6.1. This quality control program is applicable to the small scale project, which would involve a technical advisor for composting work to ensure aerobic condition, with periodic checks on compost quality and compost turning frequency. The measurement of temperature and moisture is not a specific criteria to be measured under this SSC methodology as it is listed as an example. Only the large scale methodology requires such specifically. Aerobic conditions can be assured with simpler measurements as proposed. Further, it is the co-composting operators key interest to produce high quality compost, which is only generated with constant aerobic conditions, to assure the selling of such.</p> <p>9. OK, revised with sampling with maximum margin of error of 10% at a 95% confidence level</p> <p>10. OK, wording has been revised in the CPA-DD and excel sheet has been updated accordingly. Further, an inconsistency has been spotted in the input sheet of the</p>	
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## Validation Protocol CDM-SSC-CPA-DD

CPA Title:

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	<p>excel sheet. Cell J9 now refers to the correct amount of FFB delivered to the Fetty Mina mill. The FFB amount from the year 2008 has been taken to determine the compost production and to calculate the emission reduction. (see document: FMJ_FFB Processed 2007-2009)</p> <p>11. Parameter for monitoring the quality control program, monitoring the conditions and procedures that ensure the aerobic condition of the waste during the composting process, is added in section B.6.1. This quality control program is applicable to the small scale project, which would involve a technical advisor for composting work to ensure aerobic condition, with periodic checks on compost quality and compost turning frequency. The measurement of temperature and moisture is not a specific criteria to be measured under this SSC methodology as it is listed as an example. Only the large scale methodology requires such specifically. Aerobic conditions can be assured with simpler measurements as proposed. Further, it is the co-composting operators key interest to produce high quality compost, which is only generated with constant aerobic conditions, to assure the selling of such.</p> <p>12. <math>Q_{y,ww,in}</math> is measured to calculate the methane avoidance through the co-composting process by multiplying it with <math>COD_{y,ww,untreated}</math>. <math>COD_{y,ww,untreated}</math> will be taken from the inlet to the composting site. Hence only the actual COD value of the waste water directly entering the composting site will contribute to the baseline emissions. Processes happening before hand won't contribute to baseline emissions and don't have to be addressed as per applied methodology. <math>Q_{y,ww,in}</math> is measured at the pond where POME is pumped to the</p>	
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## Validation Protocol CDM-SSC-CPA-DD

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		composting site and therefore will be equal to POME arriving at the composting site. The pond only purpose is to store the POME until used for co-composting covering peak loads. Wording has been clarified in the PoA-DD, CPA-DD and CPA-form to further clarify.	
<b>Corrective Action Request No.13.</b> Regarding- “The amendment of this document is now being initiated. No other license will be required to operate the project activity.”- is this amendment already finished and available? Please update (if relevant).	C.3	Co-composting of solid waste and wastewater is a continuous improvement to the existing waste treatment system, no amendment to the EIA is required, nor any further license for such activities. (see document: PoA composting EIA continuous improvement English)	<input checked="" type="checkbox"/>
<b>Corrective Action Request No.14.</b> Also consider the following important issue throughout the POA-DD: Several chapters of the PoA-DD refers to “Malaysia” even though Malaysia does not make part of the project boundary. Please revise/clarify:	-	Malaysia has been removed in the PoA-DD besides footnote 28 which is used as climatic reference. Climate in Malaysia and Indonesia is considered as similar: Tropical, wet.	<input checked="" type="checkbox"/>

**Table 4 Unresolved Corrective Action and Clarification Requests (in case of denials)**

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-


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## **Annex 2: Information Reference List**




Date 10/08/2011	Information Reference List- CDM-CPA-DD Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia	Page 1 of 4	 Industrie Service
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Reference No.	Document or Type of Information																		
1.	<p>On-site interviews at the project site of PT Fetty Mina Jaya during 15-02-2010 to 19-02-2010 by the auditing team of TÜV SÜD:</p> <p>Verification Team on-site:</p> <table data-bbox="415 573 1182 699"> <tr> <td>Bratin Roy</td> <td>TUV SUD South Asia</td> </tr> <tr> <td>Praveen Pyata</td> <td>TUV SUD South Asia</td> </tr> <tr> <td>Stephan Hild</td> <td>TÜV SÜD Industrie Service GmbH</td> </tr> <tr> <td>Praveen Teckchandani</td> <td>TÜV SÜD Singapore</td> </tr> </table> <p>Interviewed Persons</p> <table data-bbox="415 764 1346 919"> <tr> <td>Paul Butarbutar</td> <td>PT. Composting Program International (PT.CPI)</td> </tr> <tr> <td>Francois Beaurain</td> <td>South Pole Carbon Asset Management Ltd.</td> </tr> <tr> <td>Henricus Hutabarat</td> <td>South Pole Carbon Asset Management Ltd.</td> </tr> <tr> <td>Alin Pratidina</td> <td>PT. Composting Program International (PT.CPI)</td> </tr> <tr> <td>Pardamean Siahaan</td> <td>PT Fetty Mina Jaya</td> </tr> </table>	Bratin Roy	TUV SUD South Asia	Praveen Pyata	TUV SUD South Asia	Stephan Hild	TÜV SÜD Industrie Service GmbH	Praveen Teckchandani	TÜV SÜD Singapore	Paul Butarbutar	PT. Composting Program International (PT.CPI)	Francois Beaurain	South Pole Carbon Asset Management Ltd.	Henricus Hutabarat	South Pole Carbon Asset Management Ltd.	Alin Pratidina	PT. Composting Program International (PT.CPI)	Pardamean Siahaan	PT Fetty Mina Jaya
Bratin Roy	TUV SUD South Asia																		
Praveen Pyata	TUV SUD South Asia																		
Stephan Hild	TÜV SÜD Industrie Service GmbH																		
Praveen Teckchandani	TÜV SÜD Singapore																		
Paul Butarbutar	PT. Composting Program International (PT.CPI)																		
Francois Beaurain	South Pole Carbon Asset Management Ltd.																		
Henricus Hutabarat	South Pole Carbon Asset Management Ltd.																		
Alin Pratidina	PT. Composting Program International (PT.CPI)																		
Pardamean Siahaan	PT Fetty Mina Jaya																		
2.	CDM-SSC-PoA-DD of the programme “Composting and Co-composting Programme of Activities (PoA) in Indonesia” Version of the PDD – 01; Dated 01-12-2009																		
3.	UNFCCC homepage <a href="http://www.unfccc.int">www.unfccc.int</a>																		
4.	AMS III F/Version 08, Sectoral Scope: 13, “Avoidance of methane emissions through controlled biological treatment of biomass”																		
5.	Tool to calculate project or leakage CO <sub>2</sub> emissions from fossil fuel combustion																		
6.	Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site																		
7.	Tool to calculate baseline, project and/or leakage emissions from electricity consumption																		
8.	Decree of the State Minister of Environment for Liquid Waste Standards for Industrial Activities																		
9.	Evidence of Fetty Mina Jaya Ownership Permit with its English translation																		
10.	Regulation of the State Minister of Environment for Environmental Impact Assessment																		
11.	Government Regulation for Air Pollution Control																		
12.	Decree of the State Minister of Environment, Guidelines of Requirements, Permit Procedures and Study for Wastewater Disposal into Water or Water Resources																		
13.	Decree of the State Minister of Environment, Quality Standards for Stationary Source Emission																		

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Reference No.	Document or Type of Information
14.	Publication by Lim, K C et al (2000) “Decomposition and N & K Released by Oil Palm Empty Fruit Bunches Applied Under Mature Palms”
15.	Publication by F. Schuchardt et al (2002) “Effect of new palm oil mill processes on the EFB and POME utilization”
16.	Baseline pictures of SWDS and anaerobic lagoons at Fetty Mina Jaya palm oil mill
17.	Feasibility Report of Fetty Mina Jaya co-composting project and its certification by an external expert Dr. D. Darnoco, dated 15/12/2008
18.	Letter of withdrawal dated 16 Oct. 2008 of EcoSecurities (Note: related to earlier CDM proposal), dated 16/10/2008
19.	Confirmation letter by Fetty Mina Jaya indicating no major changes in co-composting project, dated 06/10/2010
20.	Termsheet between Fetty Mina Jaya and South Pole, dated 06/11/2008
21.	Indonesian DNA approval (Note: related to earlier CDM proposal), dated 06/03/2008
22.	Annex-1 (UK) approval addressed to EcoSecurities (Note: related to earlier CDM proposal), dated 24/06/2008
23.	ERPA between Swiss Carbon Assets Ltd. and Fetty Mina Jaya and its amendment (also this a cooperation agreement between CPA and CME), dated 30/10/2009
24.	3 years historical data on FFB processed at Fetty Mina Jaya- 2007-2009
25.	Signed contract with technology provider and EPC contractor, dated 06/03/2009 (start date of CPA)
26.	Fetty Mina Jaya's compost selling agreement, dated 6 <sup>th</sup> November 2008
27.	Entry into force of contract with technology provider and contractor- proof of first payment by Fetty Mina Jaya- project start date, dated 11/08/2009
28.	Technical specifications of project equipment supplier (Equipment Specification and Supplier Documents), dated 28/10/2008
29.	Confirmation of technical life time (15 years) from Technology Provider, dated 02/11/2010
30.	Confirmation 100% equity finance by the management of Fetty Mina Jaya, dated 06/10/2010
31.	Layout of baseline anaerobic lagoon systems
32.	Publication by Darnoko.D - Greenhouse Gas Reduction Potential at Palm Oil Mill in Indonesia- 2006
33.	Publication by Frank et al “Composting of empty oil palm fruit bunch (EFB) with simultaneous evaporation of oil mill waste water (POME)”- 2002
34.	Layout that informs- landfill shall be able to accommodate the solid waste throughout the crediting period
35.	Proof of inflation rate assumed in IRR calculation and sensitivity analysis: 2008-2009 <a href="http://www.indexmundi.com/indonesia/inflation_rate_%28consumer_prices%29.html">http://www.indexmundi.com/indonesia/inflation_rate_%28consumer_prices%29.html</a> <a href="http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx">http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx</a>
36.	Proof of exchange rate assumed in IRR calculation- 2008-2009

Date 10/08/2011	Information Reference List- CDM-CPA-DD Fetty Mina Jaya Co-composting – Under PoA Composting and Co-composting Programme of Activities (PoA) in Indonesia	Page 3 of 4	 Industrie Service
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Referen ce No.	Document or Type of Information
	<a href="http://www.bi.go.id/web/id/Moneter/Kurs+Bank+Indonesia/Kurs+Uang+Kertas+Asing/">http://www.bi.go.id/web/id/Moneter/Kurs+Bank+Indonesia/Kurs+Uang+Kertas+Asing/</a>
37.	Evidence of bench mark chosen 13.332% (local commercial bank lending rates)-- <i>March 2009</i> <a href="http://www.bi.go.id/web/en/Statistik/Statistik+Ekonomi+dan+Keuangan+Indonesia/Versi+HTML/Sektor+Moneter/Sektor+Moneter.htm">http://www.bi.go.id/web/en/Statistik/Statistik+Ekonomi+dan+Keuangan+Indonesia/Versi+HTML/Sektor+Moneter/Sektor+Moneter.htm</a>
38.	Information on avoided operational and management expenses in the baseline
39.	Evidence of increasing manpower costs: 2009- <a href="http://www.watsonwyatt.com/asia-pacific/pubs/HCI/June-2009/6_2009_Salary_Increase_Drop_Sharply_in_AP.asp">http://www.watsonwyatt.com/asia-pacific/pubs/HCI/June-2009/6_2009_Salary_Increase_Drop_Sharply_in_AP.asp</a>
40.	Evidence of Prevalance of competitive price of fertilizer: 2010- <a href="http://lifestyle.kontan.co.id/v2/read/1282228059/44865/Mentan-Tak-ada-kenaikan-harga-eceran-tertinggi-pupuk">http://lifestyle.kontan.co.id/v2/read/1282228059/44865/Mentan-Tak-ada-kenaikan-harga-eceran-tertinggi-pupuk</a>
41.	Publication by Schuchardt etal Effect of new palm oil mill processes on the EFB and <i>POME utilization</i> "
42.	Stakeholder invitation letter addressed to the local village, dated 21/05/2007
43.	Evidence of climatic conditions of Indonesia: Basiron Yusof, "Palm oil production through sustainable plantations" (2007), European Journal of Lipid Science Technology, 109:289
44.	Wet weight basis of EFB (used for EF <sub>composting</sub> ) – publication by Astimar Abdul Aziz et al.,High Porosity Carbon Powder from Oil Palm Empty Fruit Bunches for Adsorbent Products"
45.	Tripartite Termination Deed by Fetty Mina Jaya, EcoSecurities and Swiss Carbon, dated 03/09/2009
46.	Communication PP had with the DNA on change from composting to a biogas facility (related to IRL 21 above)
47.	Host Country LOA for PoA dated
48.	Holding structure of Swiss carbon assets, dated 12/08/2008
49.	COD- lab test result 10 days measurement campaign, dated 26/03/2010
50.	PoA composting work shop conducted by CME
51.	Registered CDM project 3717, <a href="http://cdm.unfccc.int/Projects/DB/RWTUV1274256462.41/view">http://cdm.unfccc.int/Projects/DB/RWTUV1274256462.41/view</a>
52.	Documentation of stakeholder process
53.	"Effect of new palm oil mill processes on the EFB and POME utilization" by F. Schuchardt <i>et al</i>
54.	CDM Project Approval Mechanism as per Indonesian CDM National Commission <a href="http://pasarkarbon.dnpi.go.id/web/index.php/komnasmpr/cat/2/prosedur-penyetujuan-proyek.html">http://pasarkarbon.dnpi.go.id/web/index.php/komnasmpr/cat/2/prosedur-penyetujuan-proyek.html</a>
55.	Future plan of <i>Fetty Mina Jaya</i> CPA implementation
56.	Evidence of common practice in the Sumatra to dispose off the EFB in a solid waste disposal site by D.Darnoco, IOPRI
57.	IRR spread sheet

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<b>Referen  ce  No.</b>	Document or Type of Information
58.	ER Spreadsheet
59.	Final version 04 CPA-DD dated 09/08/2011

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### **Annex 3: Appointment Certificates**



# CERTIFICATE OF APPOINTMENT

Mr Agarwal, Nikunj, fulfills the requirements of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH to participate in audits.

Qualification applicable to						
Standard	CDM	JI	GS	VCS	VER	Other
Date	22.03.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		22.03.11	22.03.11	22.03.11	22.03.11	

Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	22.03.11				
Financial Expertise					
Date	29.03.11				

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	22.03.11
13.1_Waste handling and disposal	12.04.11
3.1_Energy demand	27.04.11

This appointment is valid for 1 year from its date of signature below and is bound by internal requirements of the Management System of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH.

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

Your Certificate has the internal reference No. CMS-Z-0001/04.

Date	Signature
27.04.11	<i>Thomas Klein</i>





# CERTIFICATE OF APPOINTMENT

Mr Pyata, Praveen, fulfills the requirements of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH to participate in audits.

Qualification applicable to						
Standard	CDM	JI	GS	VCS	VER	Other
Date	31.01.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		31.03.11	31.03.11			

Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	31.03.11				
Financial Expertise					
Date					

Qualification in technical areas	
Technical Area	Date
13.1_Waste handling and disposal	31.03.11
13.2_15.2_Animal waste management	31.03.11
15.1_Agriculture	31.03.11

This appointment is valid for 1 year from its date of signature below and is bound by internal requirements of the Management System of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH.

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

Your Certificate has the internal reference No. CMS-Z-0036/00.

Date	Signature
31.03.11	



# CERTIFICATE OF APPOINTMENT

Mr Roy, Bratin, fulfills the requirements of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH to participate in audits.

Qualification applicable to						
Standard	CDM	JI	GS	VCS	VER	Other
Date	29.03.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		29.03.11	29.03.11			

Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	29.03.11				
Financial Expertise					
Date	29.03.11				

Qualification in technical areas	
Technical Area	Date
13.1_Waste handling and disposal	29.03.11
1.2_Energy generation from renewable energy source	29.03.11
3.1_Energy demand	29.03.11

This appointment is valid for 1 year from its date of signature below and is bound by internal requirements of the Management System of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH.

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

Your Certificate has the internal reference No. CMS-Z-0028/00.

Date	Signature
29.03.11	





# CERTIFICATE OF APPOINTMENT

Ms Wu, Caiyang, fulfills the requirements of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH to participate in audits.

Qualification applicable to						
Standard	CDM	JI	GS	VCS	VER	Other
Date	23.03.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		23.03.11	23.03.11	23.03.11	23.03.11	

Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	23.03.11				23.03.11
Financial Expertise					
Date	23.03.11				

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	23.03.11
2.2_Heat distribution	23.03.11
3.1_Energy demand	23.03.11
13.1_Waste handling and disposal	23.03.11

This appointment is valid for 1 year from its date of signature below and is bound by internal requirements of the Management System of the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH.

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

Your Certificate has the internal reference No. CMS-Z-0016/01.

Date	Signature
23.03.11	<i>Thomas Klein</i>