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Validation Report

Mangalam Timber Products Limited

VALIDATION OF THE CDM-PROJECT:
REFORESTATION OF DEGRADED LAND BY MTPL IN
INDIA

REPORT No. 1286200

08 July 2011

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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Subject: Validation of a CDM Project

Accredited TÜV SÜD Unit:
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TÜV SÜD Contract Partner:
TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199
80686 Munich, Germany

Project Participant:
Mangalam Timber Products Limited (MTPL)

Project Site(s):
The project area consists of several discrete parcels located in the Provinces of Andhra Pradesh, Chhattisgarh and Orissa in India.
The PDD includes information on geographic boundary. Digital boundary files are provided jointly with this report (submitted as shape-file, in compliance with EB 41 guidance item 34).

Project Title: Reforestation of degraded land by MTPL in India

Applied Methodology / Version: AR-ACM0001
version 04

Scope: 14
Technical Area(s): 14.1

First PDD Version:
Date of issuance: 30 Jan 2009
Version No.: 03
Starting Date of GSP 07 Feb 2009

Final PDD version:
Date of issuance: 14 June 2011
Version No.: 09

Estimated GHG removal: 4,409,933 CO₂-e after the 30 year crediting period
(= 146,998 t CO₂-e average annual GHG removal)

Assessment Team Leader:
Sebastian Hetsch

Technical Reviewer
Karin Wagner, Martin Opitz

Assessment Team Members:
Juan Chang
Vijayanand

Certification Body responsible:
Thomas Kleiser

Summary of the Validation Opinion:

- ☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD is recommending the project for registration by the CDM Executive Board if the letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.
- ☐ The review of the project design documentation and the subsequent follow-up interviews did not provide TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

Abbreviations

AR-ACM	Approved Consolidated Methodology for Afforestation and Reforestation
AR-AM	Approved Methodology for Afforestation and Reforestation
AR-AMS	Approved Methodology Small Scale for Afforestation and Reforestation
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM-EB	CDM Executive Board
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
FSC	Forest Stewardship Council
GHG	Greenhouse Gas(es)
GIS	Geographic Information System
GPG	Good Practice Guidance
GPS	Global Positioning System
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
KP	Kyoto Protocol
LULUCF	Land-Use, Land-Use Change and Forestry
MP	Monitoring Plan
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
tCER	temporary Certified Emission Reduction
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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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 a proposed project activity. The assessment involves the evaluation of the project basis and design identified in the Project Design Document (PDD) using the defined criteria outlined by the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and results in a conclusion by the executing DOE on whether or not a project activity is valid to be submitted for registration to the CDM Executive Board (CDM-EB). The ultimate decision on the registration of a proposed project activity rests with the CDM-EB and the Parties involved.

The project addressed in this validation report has been submitted under the following project title: "Reforestation of degraded land by MTPL in India".

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 project activities 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 by the EB published under <http://cdm.unfccc.int>
- Guidelines for Completing the Project Design Document (CDM-AR-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-AR-NM)
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- Applicable environmental, 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 is not meant to provide any consulting towards the project participant (PP). 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 PDD, it is made publicly available at the UNFCCC webpage and at TÜV SÜD's webpage to start a 45 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 PDDs 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 METHODOLOGY

The project assessment is based on the most recent version of the “Clean Development Mechanism Validation and Verification Manual” 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 CDM 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 project. 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 of which a CDM project 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 to the project design document.

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

Validation Protocol Table 1: Conformity of Project activity and PDD

Checklist Topic / Question	Reference	Comments	Draft Conclusion	Final Conclusion
<i>The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then subdivided. The lowest level constitutes a checklist question / criterion.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.</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-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any Request has to be substantiated within this column</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team identified a need for further clarification. Forward Action Request (FAR) to highlight issues related to project implementation that requires review during the first verification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented in the documentation.</i>

Validation Protocol Table 2: Compilation and Resolutions of CARs, CRs and FARs

Draft report clarifications and corrective action requests by validation team	Ref. to Table 1	Summary of responses	Conclusion
<i>Corrective Action, Clarification or Forward Action Requests.</i>	<i>Reference to the checklist question number in Table 1</i>	<i>Summary of the discussion and revision of project documentation together with the validation team's responses</i>	<i>Final conclusion. This is acceptable based on evidence provided (✓) or unresolved CAR/CR/FAR</i>

In case of a denial of the project activity more detailed information on this decision will be presented in Table 3. Table 3 is also used for listing of any Forward Action Request.

Validation Protocol Table 3: Unresolved Corrective Action, Clarification Requests, Forward Action Requests

Clarifications Request, Corrective Action Request, Forward Action Request	Id. of CAR / CR / FAR	Explanation of the Conclusion for Denial, or Background of Forward Action Request
<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 project is considered non-compliant with a criterion and a clear reference to the criterion</i>

The completed validation protocol is enclosed in Annex 1 to this report.

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 the following qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL);
- Validator (VAL);
- Validator Trainee (T);
- Technical Experts (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. For this particular project the assessment team members are presented in the table below. The respective appointment certificates are attached to this report as annex 3.

Assessment Team:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect	Host country experience
Sebastian Hetsch	ATL	✓	✓ (14.1)	✓	✓

Vijayanand	VAL			☑	☑
Juan Chang	VAL	☑	☑ (14.1)		☑

Technical Review:

- Karin Wagner (Technical Reviewer)
- Martin Opitz (covering the relevant Technical Area)

2.2 Review of Documents

The PDD for the GSP was submitted by the PP to the DOE in February 2009. This PDD version and additional background documents related to the project design and baseline were reviewed to verify the correctness, credibility, and interpretation of the presented information. As a further step of the validation process, information provided by the PP was cross-checked with information from other sources (if available). A complete list of all documents and proofs reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

On 20-24 October 2009, TÜV SÜD performed interviews with project stakeholders and physical site inspection to confirm relevant information, and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in this context.

Persons Interviewed:

Name	Organisation
P S Prasad	Dy General Manager (QA & Projects), Mangalam Timber Products Ltd
Tulika Biswas	Senior Analyst, CDM, Birla Carbon Management Consulting
Dipak Nandy	Asst General Manager (Farm Forestry & Procurement), Mangalam Timber Products Ltd
Suresh Kr Kushwaha	Manager (Plantation), Mangalam Timber Products Ltd
Pawan Kumar	Asst Manager (Plantation), Mangalam Timber Products Ltd
A D Naidu	Field Officer (Forestry), Mangalam Timber Products Ltd
T Santara	Officer (Data Management), Mangalam Timber Products Ltd
Dr Chiranjibi Patnaik	GIS Scientist, Salim Ali Centre for Ornithology & Natural History (SACON)
Purno Chandra Mahapatro	Secretary, Maa Syamalay Voluntary Organisation

In addition, 120 farmers holding the land title of the project area were interviewed during the field visit site.

2.4 Cross-check

During the validation process the team made reference to available information related to similar projects or technologies as the CDM project activity. The documentation was also reviewed against the approved methodology 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 project design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process the concerns raised and responses that were given are documented in more detail in the validation protocol in Annex 1.

The final PDD version submitted in June 2011 served as the basis for the final assessment presented. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM: an achievement of reduction of anthropogenic GHG emissions and a contribution to sustainable development.

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 (a veto person is used if necessary). 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 of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC 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 listed in the Information Reference List (IRL) in Annex 2.

3.1 Approval

The project participant is Mangalam Timber Products Ltd (MTPL). The host Party India meets the requirements to participate in the CDM.

The DNA of India issued a LoA (IRL 7) on 17 February 2010 authorizing MTPL as a project participant. TÜV SÜD received this letter from the project participant and double-checked with the internet database of approved CDM projects in India which further confirms the approval of this CDM project and its authenticity.

This letter was issued by the respective Party's DNA: the "Ministry of Environment and Forests" of India.

TÜV SÜD confirms that this letter refers to the precise proposed CDM project activity title in line with the title in the PDD "Reforestation of degraded land by MTPL in India".

This letter also indicates that the participating Party is a Party to the Kyoto Protocol, and that the participation in the "Reforestation of degraded land by MTPL in India" project is voluntary. The Indian LoA also confirms that the proposed CDM project activity contributes to the sustainable development of India (host country).

Based on the information given in this letter, TÜV SÜD considers the approval as unconditional with respect to these items. TÜV SÜD considers that the requirements of VVM (§§ 45-48) are met.

The LoA does not refer to a specific version of the PDD or validation report. The corresponding references included in the LoA, PDD and validation report are consistent.

3.2 Participation

The participant of the project activity was approved by the corresponding Party, which is confirmed with the issued LoA. The means of validation used are the same as described in section 3.1, specifically in regard to the approval process of the project activity.

3.3 Project design document

The PDD complies with the relevant form and guidance provided by UNFCCC. The version 4 of the PDD template was used as it is still accepted for registration. TÜV SÜD considers that the guidelines for the completion of the PDD in their most recent version were followed. Relevant information was provided by the participants in the applicable PDD sections. Completeness was assessed through the checklist included in Annex 1 of this report.

3.4 Project description

The following description of the project as per PDD was verified during the on-site audit:

The project activity consists of reforestation of 14,969.46 ha of degraded farm lands with the tree species Eucalyptus. The project area is located on discrete parcels of land of 12437 parcels (IRL 11), belonging to local farmers in the states of Orissa, Chhattisgarh and Andhra Pradesh in India.

The project is carried out by the MDF board manufacturing company “Mangalam Timber Products Limited” (MTPL), providing technical support for the plantation and buying the timber from the farmers afterwards (IRL 20, 25).

Without the project, the baseline scenario for the project area is continuation of pre-project land use (degraded, abandoned agricultural lands). In order to address the non-permanence of AR-CDM projects, the PPs opted for tCERs over a 30 year non-renewable crediting period.

The information presented in the PDD on the technical design is consistent with the actual planning and implementation of the project activity as confirmed by:

- Review of data and information (see Annex 1), which was verified with other sources if available.
- An on-site visit was performed and relevant stakeholder and personnel with knowledge of the project were interviewed. If doubts arose, further investigations and additional interviews were conducted
- Finally, information related to similar projects or technologies as the CDM project activity were used (if available) to confirm the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the project description, as included to the PDD, is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 Baseline and monitoring methodology

3.5.1 Applicability of the selected methodology

Compliance with each applicability condition as listed in the chosen baseline and monitoring methodology AR-ACM0001 version 04 was demonstrated.

The assessment was carried out for each applicability criterion and included, among others, the compliance check of the local project setting with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources, which sustain that applicability conditions are complied with. The following documents confirmed the applicability conditions:

- Report on remote sensing analysis (IRL 31).
- Participatory Rural Assessment (IRL 16).
- Soil Testing Laboratory Semiliguda, Govt. of Orissa (IRL 27)

Following the requirements of the methodology, the following tools and procedures were correctly applied:

- Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities;
- Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities;
- Tool for the identification of degraded or degrading lands for consideration in implementing A/R CDM project activities;

- Tool for estimation of GHG emissions related to displacement of grazing activities in an A/R CDM project activity;
- Estimation of GHG emission due to clearing, burning & decay of existing vegetation attributable to a CDM A/R project activities;
- Calculation of the number of sample plots for measurements within A/R CDM project activities;
- Tool for testing significance of GHG emissions in A/R CDM project activities.

The methodology-specific protocol, included in Annex 1, documents the assessment process. The results of the compliance check as well as relevant evidence are detailed in the protocol and the information reference list.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the project activity. Emission sources, which are not addressed by the applied methodology, and are expected to contribute more than 1% of the overall expected average annual emission reductions, were not identified.

3.5.2 Project boundary, pools and eligibility

The **project boundary** was assessed in the context of physical site inspection, interviews, and on the secondary evidence received on the design of the project.

The project area covers 14,969.46 ha; it consists of 12,437 parcels in the states of Orissa, Chhattisgarh and Andhra Pradesh in India. The boundary as defined in the field was found to be consistent with the indications in the PDD (IRL 9, 10, 11, 12, 13). In the field, the boundary delineation was cross-checked by the audit team with GPS.

The most relevant documents assessed in order to confirm the project boundary are the following:

- Parcel database Excel sheet (IRL 30)
- Internal Environmental Impact Assessment (IRL 39)
- Digital boundary files in a Geographic Information System (GIS) (IRL 11) In accordance with EB 41, item 34, digital boundary files are provided as shape files.
- Field sheets including coordinates obtained from GPS point documenting the assessment of the audit team during the onsite visits (IRL 50)
- Overview maps of the location of the project area and boundaries are also included to the final PDD (IRL 2).

The boundaries were validated during the validation process using standard audit techniques, details of all observations are presented in the Annex 1. TÜV SÜD confirms that the identified boundaries as documented in the PDD and attached documents are adequately defined for the project activity.

Regarding **control over the project area**, the farmers are legal owners of the land (IRL 24). A tripartite agreement has been signed between the farmer, a rural development bank and Mangalam Timber Products Limited (IRL 23). This agreement clarifies the rights and obligation of all three parties. In a separate contract, the farmers authorize MTPL to take necessary steps for getting the carbon credit for the plantation (IRL 24, 25). The project participant MTPL has signed contracts for all parcels of the project area. The land titles for all parcels of the project area have been checked by the bank, as it was a requirement to obtain the initial credit to establish the plantation. The title deed of the farmers involved remains with the bank as deposit.

Thus, control over the project area by the PP is considered to be established. Hence, TÜV SÜD confirms that the identified boundary documented in the PDD is adequately defined for the project activity.

The **carbon pools** and the relevant emissions sources and gases (compare sections on removals and emissions below) were selected and considered in line with the applicable methodology and this information is included accordingly in the PDD (IRL 2).

In regard to **eligibility of lands**, the project area fully complies with the requirements of the most recent Eligibility Procedure as defined by the EB. Among others, the assessment of the compliance was based on the following evidence:

- Historical land use based on 1989 LANDSAT satellite imagery (IRL 12).
- Participatory Rural Assessment (IRL 16).
- Ground based vegetation survey (baseline study) (IRL 51).

Vegetation at the time of the project start was assessed and found to be below the forest threshold (according to the DNA definition). It was assessed that the vegetation prior to project start would not have surpassed this threshold at maturity without the project activity (IRL 12, 51). This assessment was reviewed by the audit team through a number of randomly selected parcels of land, which were visited. Based on these samples it was confirmed that no forest was on the project area before project start.

No forest had been on the project area on 31 December 1989, as shown in the baseline field assessment (IRL 51), the satellite images (IRL 12) and the PRA (IRL 16). The document was reviewed by the audit team. Eligibility was also verified during interviews with local stakeholders on site, who confirmed that no forest had been on the project area since 1989 (IRL 1).

3.5.3 Baseline identification

The PDD identifies the baseline scenario as the continuation of the existing and historical land use leading to further land degradation. This baseline scenario was determined by using the A/R Methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" as required by the methodology.

The information presented in the PDD was validated by a document review, the on-site visit of the project area (IRL 1, 59, 60) and finally by cross-checking the information presented with similar relevant projects and literature. The sources referenced in the PDD were quoted correctly. The information was verified against credible sources, such as:

- Field data sheets of the baseline assessment (IRL 51);
- PRA report (IRL 16);
- Soil maps (IRL 15);

Field visits and interviews sustained the chosen baseline approach as per CDM Modalities and Procedures: *Existing or historical, as applicable, changes in carbon stock in the carbon pools within the project boundary*. In the case of this project, the historic land use of the project area prior to project start would also be the likely future land use in absence of the project.

TÜV SÜD confirms that no reasonable alternative baseline scenario was excluded in the analysis of baseline scenarios. Based on the validated assumptions, TÜV SÜD considers that the identified baseline scenario is reasonable. Taking the definition of the baseline scenario into account, TÜV SÜD confirms that all relevant CDM requirements, including relevant national and sectoral policies and circumstances, were identified correctly. A verifiable description of the baseline scenario was included in the PDD.

In regard to item 87 of VVM, TÜV SÜD confirms the following statements:

1. All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
2. All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
3. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence, and can be deemed reasonable;
4. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
5. The approved baseline methodology was correctly applied to identify the most reasonable baseline scenario, and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.5.4 Algorithm and/or formulae used to determine emission reductions

TÜV SÜD assessed the calculations of baseline stocks and removals, project emissions, leakage and the expected net anthropogenic GHG removals by sinks. Corresponding calculations were carried out based on calculation spreadsheets (IRL 8). Correctness of calculations can be confirmed as they were replicated by the audit team using the information provided.

The values and estimates presented in the PDD are considered reasonable based on the documentation reviewed, further references and the result of the interviews during the onsite visit.

Based on the information reviewed it can also be confirmed that the sources used are correctly quoted and interpreted in the PDD. All assumptions and data indicated in the PDD and all relevant sources were checked and confirmed (IRL 18, 19). Detailed information on the verification of parameters used in the equations is presented in Annex 1.

In essence, the methodology was correctly applied following the requirements. All values in the PDD are considered reasonable in the context of the proposed CDM project activity. Data sources are quoted correctly. Hence, the calculation of baseline stocks and removals, project emissions, leakage and the expected net anthropogenic GHG removals by sinks are considered correct.

3.5.5 Baseline stocks and greenhouse gas removals by sinks

The stratification process differentiated two baseline strata, one without trees and another one with few growing trees considering the presence of trees as the key entry variable used to estimate changes in carbon stock as indicated in the methodology.

Baseline stocks were estimated and considered for all relevant types of vegetation. A study was elaborated indicating baseline carbon stocks of 1,751.2 tonnes CO₂-e in existing trees for the project area (IRL 51). For the calculations, Biomass Expansion Factor, and Root to Shoot Ratio were taken from the IPCC GPG for LULUCF (IRL 52), values for Wood Density were taken from the project specific database (IRL 30). The choice of data sources is considered adequate. Good practice in regard to forest inventory was followed in the context of the baseline assessment.

Baseline carbon stocks were discounted in the overall calculations of net anthropogenic removals.

The parameters and equations presented in the PDD and further documentation were cross-checked and compared with the requirements and guidelines of the applied methodology and

respective tools. The review of the equation included all formulae presented in the PDD and the digital calculation files.

In summary the calculation of the baseline stocks and GHG removals are considered correct.

3.5.6 Project emissions

The methodology considers emissions from biomass burn. These sources were discussed in the PDD and respectively in the audit process.

In line with the design of this project, no biomass burning for site preparation will be implemented, which is considered credible (IRL 50).

3.5.7 Leakage

The leakage sources according to the chosen methodology are GHGs emissions due to conversion of land to grazing land.

In regard to leakage from displaced grazing, the PP analyzed in detail following the steps suggested by the methodology considering the amount of livestock in the communes in the project area as well as the available land for potential displacement under control of the associated communes (IRL 26, 53). Based on this analysis, it is concluded that no leakage will occur due to the project implementation as sufficient grazing land exists under control of the project participants for the displaced animals. Respective monitoring will be carried out by the PP.

3.5.8 Net anthropogenic greenhouse gas removals by sinks

The estimates on the expected anthropogenic removals which are likely to be achieved by the envisioned reforestations under the project scenario are based on the Biomass Expansion Factor method (IRL 8). Biomass Expansion Factors and Root-to-Shoot ratios are taken from IPCC GPG LULUCF (IRL 52); for Carbon Fraction the default value of 0.5 was applied (IRL 52) and for wood density the value was taken from the project database (IRL 30). The sources were reviewed and confirmed during the onsite visit.

Over the crediting period of 30 years, total net anthropogenic removals of 4,409,933 t CO₂-e are expected. The calculations of the net anthropogenic GHG removals were carried out with an Excel based tool provided by the PP (IRL 8). All calculations are in compliance with the applied AR-CDM methodology. The steps of the calculations are fully traceable and adequate for the project conditions.

In summary, the calculations for net anthropogenic GHG removals are considered correct.

3.6 Additionality

The additionality of the project was presented in the PDD using following approach: Additionality tool for AR-CDM (version 02) using the barrier and the investment analysis.

The approach used in the PDD was assessed based on a document review, where following relevant documents were reviewed:

- Participatory Rural Appraisal (IRL 16)
- Tripartite contract between the farmer, MTPL and the bank (IRL 22)
- Institutional Credit and Factors Influencing Its Flow to Agriculture in Orissa, Indian Journal of Agricultural Economics (IRL 54)

- Factors affecting small farmers' access to institutional credit in Rural Orissa, India. Development and Change (SAGE, London, Newbury Park and New Delhi), Vol. 21. (1990). 281-307. (IRL 55)

Furthermore, the additionality analysis was discussed onsite with the project team of MTPL as project participant, as well as with the farmers who own the land (IRL 1). Interviews on this topic were also carried out with stakeholders during the onsite visit (IRL 1, 19). The data, rationale, assumptions, justifications and documentation provided were checked using local knowledge and sectoral and financial expertise. The information provided by the PP was further cross-checked by:

- Forest Policy of India (IRL 58)
- Investment Behaviour of Farm Households and Flow of Institutional Credit - A Study in Orissa, Indian Journal of Agricultural Economics, July 1, 2005. (IRL 56)
- Impact of Institutional Finance on Farm Income and Productivity: A Case Study of Orissa, Indian Journal of Agricultural Economics. (IRL 57)

Based on the aforementioned approach, TÜV SÜD confirms that the documentation provided is appropriate for this project. Further analysis of the additionality is summarized in the sections below (3.6.1 – 3.6.5).

In essence, the project is considered additional as degraded lands are reforested which otherwise would have remained degraded grazing lands - among others due to unavailability of funding for such reforestation activities.

3.6.1 Start date and prior consideration of the CDM

The project started on 25 June 2001. The starting date of the project activity is determined by the contract between the farmer, the bank and MTPL (IRL 25). In order to confirm the starting date the assessment team reviewed this document and further cross references listed in the chronology of events presented in the PDD (IRL 2). The audit team furthermore confirmed the project starting date during field visits and assessment of the age and condition of the established forests on the project area.

The CDM consideration prior to project start was documented through the minutes of the Board Meeting dated 24 April 2001 (IRL 3). The document states that MTPL board decided to develop the AR-CDM project activity. The project therefore complies with the requirement of prior CDM consideration.

TÜV SÜD confirms that CDM was a decisive factor in the decision to proceed with the project, as the company entered in financial constraints unable to develop reforestation activities on degraded forest lands (IRL 5). The audit team reviewed the document and considered it to be in line with VVM requirements. Reliable evidence from project participants is presented in the PDD and respective evidence was provided to the audit team and assessed. The evidence provided indicates that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation.

TÜV SÜD confirms that real and continuing actions was taken by the PP to secure the CDM status of the project activity during the period between the project starting date and when the validation started, as per EB 49 annex 22. The audit team validated this by a review of the following documents:

Date	Activity by the Project Participant	IRL	Audit team conclusion
24.04.01	MTPL Board decision to go ahead with a AR-CDM project considering the revenues from the carbon financing.	3	The minutes from the board meeting were provided as evidence sustaining the intention to participate in the CDM at the early stage
25.06.01	Starting date of the project defined by the first tripartite agreement between the farmer Shri Chaitan Kendu of Bai-pariguda, District Koraput, the company and the financing bank.	25	The tripartite agreement was provided to the audit team as evidence. Based on this contract the first trees were planted in the project, which presents the actual start of the project. Document reviewed by TÜV SÜD and found in compliance with the AR-CDM requirements for starting date as defined in the Glossary of CDM terms and VVM.
11.04.02	External consultants such as Vidula Consultancy Services were contacted to develop a CDM project.	63	The letter from MTPL requiring consultancy services for the development of the forestry CDM project were provided as evidence for continuous action for securing the CDM status of the project.
19.08.02	Vidula Consultancy came up to extend advisory services for CDM project and was willing to make a presentation.	64	The letters between MTPL and Vidula Consultancy Services were provided as evidence. These letters clearly indicate the intention to develop the project as a CDM project, which sustains the continuing actions taken to secure the CDM status of the project activity.
24.09.03	Site visit by the consultants of Vidula CS from 08.09.03 to 13.09.03. During the visit the consultants studied the plantation activity under farm forestry scheme and discussed preliminary requirements in view of developing CDM project with plantation team.	65	The letter indicating the findings of the on-site visit by the consultants was provided as evidence. As above, this letter clearly indicates the intention to develop the project as a CDM project, which sustains the continuing actions taken to secure the CDM status of the project activity.
12.07.04	Vidula Consultancy later intimated since there is no methodology and guidelines currently available for forestry projects, they would first require to develop new methodology and submit for approval which is a difficult task. VCS was not willing to get into development of a new methodology. They suggested that AR-WG has been formed and MTPL should wait till issue of approved methodology.	66	The letter submitted by Vidula Consultancy Services to MTPL advising to wait until a methodology for forestry projects under the CDM is available was provided as evidence. This letter clearly indicates the intention to develop the project as a CDM project, which sustains the continuing actions taken to secure the CDM status of the project activity.

20.12.05	Vidula Consultancy intimated that the 1st methodology on AR-CDM projects AR-AM0001 has been issued by UNFCCC on 28 Nov 2005.	67	The letter submitted by Vidula Consultancy Services to MTPL informing that a methodology for forestry projects under the CDM is available was provided as evidence. This letter clearly indicates the intention to develop the project as a CDM project, which sustains the continuing actions taken to secure the CDM status of the project activity.
24.01.06	Ernst & Young and Vidula Consultancy Services (VCS) submitted their offers. The offer of Ernst & Young was too high and couldn't be finalised. VCS submitted revised offer on 18.04.06 which was accepted	68	The offer proposal from Ernst & Young and the contract proposal with Vidula Consultancy Services were provided as evidence for sustaining the intention to develop a CDM project based on a first methodology available for forestry projects. Therefore, the intention to proceed with the CDM project activity was clearly demonstrated.
07.03.07	Project Concept Note & PDD were submitted to Ministry of Environment and Forests for Host Country Approval	69	The PCN and first PDD submitted to the corresponding DNA of India were provided as evidence. The intention to continue with the implementation of the project as a CDM project is therefore documented.
07.03.07	Submission of the letter requesting the Host Country Approval to the corresponding DNA of India.	70	The letter requesting the HCA was provided as evidence. It clearly demonstrates a real action taken to secure the CDM status of the project activity.
25.04.07	Presentation of project activity at DNA meeting for Host country approval	71	The letter from the DNA of India (IRL 71) requesting the presentation of the project for approval was provided as evidence sustaining continuous actions to secure the CDM status of the project activity.
29.05.07	A letter from the DNA of India was submitted requesting clarifications before the submission of the Host Country Approval	72	The letter from the DNA of India (IRL 72) submitted on May 2007 sustains continuous actions to secure the CDM status of the project activity.
12.12.08	In view of changed methodology TUV-SÜD submitted offer for validation as per AR-ACM0001 on 12.12.08. The order was signed on 22.12.08	74	Contract with TÜV SÜD was established for the validation of the proposed CDM project activity.
07.02.09	GSP: Uploaded PDD on UNFCCC website from 07.02.09 to 23.03.09 (45 days) inviting comments from Global Stakeholders.	73	The GSP was initiated after the submission of the proposed project which sets the date when the validation started.

The audit team reviewed the respective documents, based on which TÜV SÜD can confirm that real and continuous actions were under taken to secure the CDM status of the project in line with the VVM version 1.2 paragraph 102 (b). Further, as per EB 49 annex 22, TÜV SÜD concludes that continuing and real actions were taken to secure CDM status for the project activity, as there is less than 2 years of a gap between the documented evidence.

The audit team further confirms that the proposed CDM project activity complies with the requirements of the latest version of the Guidance on prior consideration of CDM, as the project start date is before 02 August 2008.

In essence all requirements regarding early CDM consideration as per VVM and respective guidance are met.

3.6.2 Identifications of alternatives

The output of the project is long-term managed reforestations, generation of income and employment opportunities in rural communities and production of wood.

Relevant alternatives (baseline scenario) were identified in the context of the additionality test: (i) The land used for agricultural practices, (ii) reforestation of the land without support of MTPL, (iii) implementation of project without being registered as an A/R CDM project activity and (iv) continuation of the existing and historical land use leading to further degradation.

The presented alternatives include all plausible scenarios taking into account local and sectoral circumstances. Hence the list of alternatives is considered to be complete.

Based on the evidence provided and the discussion held with the project participants during the onsite visit, it is clear that the continuation of the current and historical land use is the most likely scenario in the absence of the project activity.

3.6.3 Investment analysis

The PP uses the simple cost analysis to demonstrate the additionality as it was documented that the proposed project activity produces no financial benefits for the PP other than the CDM related income, as the project participant will provide technical support and subsidised planting material for the farmer in order to secure its further supply of raw material. The farmer is compromised to sell all the pulpwood production to the PP at the market price at time of harvesting, thus there is not any additional prime price for the PP (IRL 22). The assumptions presented in the financial analysis inter alia the salary, wages and transportation costs at the time the investment decision was made, were reviewed and found to be appropriate (IRL 34, 35, 36). This confirms that the underlying assumptions are appropriate for this project.

The financial calculations were verified and no mistakes were found. This was further assessed in more detail by experts on this field (IRL 1). This confirms that the calculations are correct.

3.6.4 Barrier analysis

The project participants used the barrier analysis in order to demonstrate the additionality of the project. The presented barriers are

- Investment barriers
- Technological barrier
- Ecological barrier
- Barrier due to social conditions
- Barrier due to market and transportation

The assessment team checked first if any barrier has a clear direct impact on the financial returns of the project activity which can be expressed with reasonable certainty in monetary terms. The final PDD does include only barriers without such impact on the financial returns.

The **investment barrier** was demonstrated based on the lack of financial resources for the farmers neither access to credit for implementing reforestation activities in their lands (IRL 54,

55, 56, 57). It was only until the agreement between the PP, the land owner and the bank was signed that the farmers were able to start the planting activity (IRL 22). This agreement was signed in the context of the proposed CDM project activity with the expectation of receiving finance from the sale of the carbon revenues. Thus, the investment barrier prohibits alternative (iii), implementation of the proposed project without being registered as an A/R CDM project activity.

The **technological barrier** was demonstrated based on the PRA report (IRL 16). The report documents that the farmers do neither have access to planting material nor expertise in forestry plantation activities. The participation of MTPL in the context of the proposed A/R CDM project activity will help to overcome this barrier through technical assistance to the farmers without any charge but with the expectation of the carbon financing.

The **ecological barrier** was assessed against documents such as:

- Soil maps (IRL 15);
- Field data sheets of the baseline assessment (IRL 51);
- PRA exercise (IRL 16)
- Historical land use based on 1989 LANDSAT satellite imagery (IRL 12).

Further details are discussed in Annex 1. It was confirmed that the ecological conditions would prevent the implementation of the proposed project activity from being carried out if the project activity was not registered as an A/R CDM activity due to degraded condition of the soil which is overcome with the carbon financing (IRL 15, 27, 28).

The **barrier related to social conditions** is sustained considering that there were no previous organizations that could assist the farmers in a respective way to conduct reforestation activities for carbon finance such as the CDM. This was also assessed on the basis of the PRA report conducted by an independent party (IRL 16).

The **barrier due to market and transportation** is discussed mainly considering the transportation limitations for the implementation of the proposed project activity as sustained with evidence (IRL 59). This barrier is overcome with the participation of MTPL providing transportation facilities for the produced pulpwood.

The result of this assessment shows clearly that the barriers presented in the PDD can be considered real. These barriers prevent the project activity from being implemented while it would not prevent at least the baseline of the project. This was confirmed based on the documentation review, interviews and local and sectoral expertise of the assessment team. The latter was i.e. confirmed by the interviewed stakeholders.

Taking into account the description of the validation of the barrier presented above, the assessment team can confirm with reasonable certainty that the barrier are credible and correctly presented to demonstrate the additionality of the project.

The project is considered additional as marginal sites which otherwise would have continued degrading are reforested by low-income communities, due to unavailability of funding as reforestations are characterized by low commercial attractiveness.

The project activity envisions supplying the necessary funding for project implementation, and in this manner overcome the identified barriers.

3.6.5 Common practice analysis

The region for the common practice analysis was defined as the geographical area of the states of Orissa, Andhra Pradesh and Chhattisgarh where the reforestations will occur. The assessment team reviewed the approach presented in the PDD and can confirm that relevant parameters such as location, ecological conditions, economical situation, and development were taken

into account in order to define the region (IRL 60). The chosen region has unique characteristics in regard to forest structure, population structure and ethnic minorities. Therefore, the presented approach can be considered appropriate for the common practice analysis.

Similar reforestation activities are carried out by paper companies in the region. One of these is registered under CDM (IRL62), the other project (Ballarpur Industries Limited - BILT) is conducting similar activities without carbon finance but shows essential distinctions in comparison with the project at hand. As stated in the PDD, the farm forestry project of BILT is made possible due to public funding (IRL 61). Hence the proposed AR-CDM project activity is not considered common practice due to its essential differences to the other ongoing activity without CDM financing. Therefore, it can be confirmed that the proposed CDM activity is not a common practice in the defined region, while considering the specific project design.

3.7 Monitoring plan

The monitoring plan presented in the PDD complies with the requirement of the methodology. The assessment team checked all parameters presented in the monitoring plan against the requirements of the methodology. For the monitoring of carbon stock changes the requirements and parameter list as per methodology were followed.

The monitoring plan was included to the project documentation. The boundary and forest management monitoring was defined specifically for the project context. The sampling design was reviewed onsite and found to be in compliance with methodological requirements, and good practice as defined e.g. in the IPCC GPG LULUCF (IRL 52).

The procedures were reviewed by the assessment team on paper and through interviews with the relevant personnel (IRL 1); this information together with a physical inspection allows the assessment team to confirm that the proposed monitoring plan is feasible within the project design.

The major parameters to be monitored were discussed with the PPs, as well as the inventory processes, data management, quality assurance and quality control procedures that will be implemented in the context of the project. The PPs developed Standard Operating Procedures (SOP) towards carbon monitoring in order to ensure the collection of reliable field data (IRL 21, 32).

TÜV SÜD concludes that the PP will be able to implement the monitoring plan to report ex-post GHG net anthropogenic removals, which can also be verified.

The chosen monitoring frequency of the parameters is in line with the methodology (frequency in years). It is considered that there is no systematic coincidence of verifications with peaks in carbon stocks since no harvesting operations are foreseen within the crediting period.

Under consideration of the pre-fixed verification frequency of every 5 years (after first verification) and the defined forest management and harvesting system it is considered that there will be no systematic coincidence of verifications with peaks in carbon stocks.

3.8 Sustainable development

The LoA of the Host Country India clearly presents a statement that the project contributes to the sustainable development of the Host Party (IRL 7).

3.9 Local stakeholder consultation

The stakeholder process was carried out in line with PDD guidance and was found to be documented through evidence on the consultation process. Meetings were held by the PP in the villages and farmers were informed about the project activity (IRL 42, 43, 44, 45). Also a PRA exercise was conducted to obtain general information and feedback from the local communities (IRL 16).

The assessment team reviewed the documentation in order to validate the inclusion of relevant stakeholders and using the local expertise it is confirmed that the communication method used to invite the stakeholders can be considered appropriate.

The summary of comments presented in the PDD was cross-checked with the documentation of the stakeholder consultation and confirmed with interviews with stakeholders of the community by the audit team during the onsite visit. The summary is found to be complete.

The relevant comments presented by the local stakeholders were taken into due account by the PP, the same was cross check with the information obtained during the interviews.

Hence the local stakeholder consultation was adequately performed according to the CDM requirements.

3.10 Environmental and socio-economic impacts

The PP undertook an analysis of environmental and socio-economic impacts according to the requirements of the guidelines for PDD completion. The assessment team carried out a document review of the information presented.

No Environmental Impact Assessment is required for afforestation activities in India, as confirmed by the official website of the Ministry of Environment and Forests (IRL 38). However, the PP carried out an Environmental Impact Assessment describing the main activities of the plantation activity and the potential impacts caused in the environment and at the socio-economic level (IRL 44).

Although there might be possible impacts on water and soil due to the plantation of *Eucalyptus spp*; the evidence provided indicates that no negative impacts are expected at the time of validation. Nonetheless the PP has a monitoring plan in place specifically for soil and water.

The social impacts were also discussed and analysed in the brief EIA submitted to the audit team (IRL 39). In light of the socio-economic situation of the farmers at the time the project started, it is expected that the proposed project activity will provide additional labour opportunities and income from the sale of the pulpwood to the PP as well as revenues from the carbon sequestered in their trees. This conclusion was also sustained by the results of the field visit of the audit team as well as positive comments on the project by the consulted stakeholders (IRL1).

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on the UNFCCC website and invited comments by affected Parties, stakeholders, and non-governmental organisations during a 45 day period.

All key information gathered is presented in the table below

GSP Comments

webpage: http://cdm.unfccc.int/Projects/Validation/DB/QT1C6ZQJ4RJK28UFAI503NEOA8A2UY/view.html	
Starting date of the global stakeholder consultation process: 07 Feb 2009	
Comment submitted by: Keshav C Das Regional Director, Business Operation CTG Advisory Services In- dia Pvt. Ltd Clean Trade Group 906, 9th Floor 89 Hemkunt Chambers Nehru Place, New Delhi- 110019 Mob: +91- 9871901317	Issues raised: Compilation of submitted inputs: Section A.2: As per the guidance and clarifications relating to the Project Design Documents (PDD), EB.42, Version09, Annex. 12, the project proponent must demonstrate in section A.2 about the potentiality of the proposed project on sustainable development. Merely, making a statement that 'The A/R project is a human induced natural regeneration on degraded lands and erosion prone areas to improve soil stabilization and soil fertility...and project activity would generate more income opportunities for the farmers of the land on long term' is not sufficient. Therefore, project participants are requested to make a qualitative (quantitative) description of the most probable trans-boundary and project-related development benefits of the project, which could be percolated down to the stakeholders. Section A 4.2: There is no such section in the PDD format, designed for AR CDM project. This section should be A.4.1.4. As per the guidelines, this section shall depict the unique geographical identification for each discrete area of land. The boundary should be defined for each discrete area and should not include the areas in between these discrete areas of land. But, it is found that the PDD has not lined any such specification (which is a part of completeness check of the PDD), contrary to which the project proponent has put a few web-based map which are redundant. Section 5.2: The description of climate, hydrology, soils and ecosystems are very general and many often focused on the macro scenario of the states. As per the requirement of the PDD it should be project specific and micro in nature which could have a direct or indirect correlation with the proposed project activity. Moreover, these descriptions shall be based on soil testing report, metrological data (primary or secondary). The PDD has not taken care of this issue. Section A. 5.2. It is not clear whether the long list of rare or endangered species and their habitats are prevailing in the project area? I request clarification. Section A.5.6. It is stated that the project did not cause significant leakage. This statement is not consistently convincing owing to the description of the PDD in section A. 5.4, where it was lined that fertilizer application, tillage operations with mechanized techniques and ploughs were practiced. There are also possibilities of emission of methane from the rice straw.

	<p>Section A.7: The justification on eligibility of land is ambiguous. PDD says that '.....neither covered by young natural stands or plantations with the potential to reach the national forest threshold' which implies that there were some vegetations. Can the project developer name it with details? The argument on 'the land is under ongoing process of degradation' has to be further illustrated. This must also have to be supported by revenue maps/satellite imageries as well as PRA report. In addition, the project developer should also define the 'state of the land' before the project activity to prove that the area (for each parcel) is eligible for reforestation.</p> <p>Section B.1: The project start date is 24/04/2001. Can the project developer provide proof for 'serious and continuous' efforts? Why the project was not started on 2004 or 2005/2006, and took so much time?</p> <p>In PDD, once the project developer has used the term waste land and in another page the area is termed as degraded land (While describing about the methodology). Please clarify.</p> <p>Section C.2: Justifications on applicability conditions are wooly. Please provide us more information on the encroachment, shift of activity etc.</p> <p>C.6: The project should use Combined tool to identify the baseline scenario and demonstrate additionality, not what the PDD has used? Please clarify on the financial estimation. Monitoring plan needs more specification and administrative structure.</p>
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Response by Project Participant

Section A.2: PDD has been modified. Details of the benefits of the proposed project activity have been included in section A.2 and G.1.

Section A 4.2: This section exists in the PDD Form. Please refer Project Design Document form for Afforestation and Reforestation project activities, version 4, EB 35, Annex 20 for this section. Unique geographical identification for each discrete parcel developed. GPS mapping of individual plots for current period has been developed by SACON for the project activity and provided to the DOE.

Section 5.2: PDD updated and project specific data has been provided in the PDD.

Section A. 5.2: No those list were state data. PDD has been updated and project specific data has been given and no rare or endangered species found in the project region.

Section A.5.6: Based on the applied approved consolidated afforestation and reforestation baseline and monitoring methodology AR ACM001, version 3, following potential sources of leakage (LK) are identified

- GHG emission due to activity displacement
- GHG emission due to increase in use of wood posts for fencing

As per EB42, monitoring of leakage associated with the use of fencing posts is not required as it is considered insignificant.

Leakage due to activity displacement have been calculated in line with the tool, "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity" – version 02.

Section A.7: All ambiguity in justification of eligibility of land removed in revised PDD. "Procedure to demonstrate the eligibility of lands for A/R CDM project activities (version 01)" applied that requires land under project activity was not forest at the start of the project activity. Eligibility established through GIS mapping of current period, satellite images of 1990 period and PRA report that proved that the land was not forest at the start of project activity. Both the GIS mapping and the PRA report submitted to the DOE.

Section B.1: Project start date - As clarified in EB's 41st meeting at Para 67 "the start date shall be considered to be the date on which project participant has committed to expenditures related to implementation of project activity". Accordingly the date on which first tripartite agreement was executed between the farmer, the company and the bank to undertake project activity has been considered as the start date.

The first tripartite agreement was executed in respect of Shri Chaitan Kendu (KBG001), village Kenduguda under Indian Overseas Bank, Boipariguda, district Koraput on 25th June, 2001 which has been considered as start date. The document handed over to the DOE.

The terminology 'waste land' was used in the same meaning as degraded land. However it has been removed and PDD corrected accordingly.

Section C.2: PDD revised giving justifications on applicability conditions in detail using "Tool for identification of degraded or degrading lands for consideration in implementing A/R CDM Project activities (version 01)". Verifiable documents in the form of land patta / pass book and certificates from tehsildars of Land Revenue department and various references are also available to establish the degraded status of land. Documents submitted to the DOE.

Section C.6: PDD revised using "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01)". A list of all tools used in the project activity also provided in Section C.1. Investment analysis included as per tool based on Option I: Simple cost analysis as no income other than CER revenue is contemplated from the project activity.

Monitoring plan improved in the PDD by providing organisational structure and roles and responsibilities of the personnel in detail.

Response by TÜV SÜD:

The audit team conducted the assessment following strictly the CDM requirements as pointed out by comments raised during the GSP. A detailed discussion on the compliance of each of the CDM and methodology specific requirements is included in the Annex 1 of the present report. The final statement confirms that all requirements as per CDM rules are met.

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity: Reforestation of degraded land by MTPL in India.

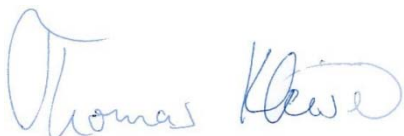
Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol for the project has been prepared to conduct the validation process in a transparent and comprehensive manner.

The review of the project design documentation, 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 project meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the project for registration by the CDM Executive Board.

An analysis, as provided by the applied methodology, demonstrates that the proposed project activity is not a likely baseline scenario. GHG removals attributable to the project 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 remove the estimated amount of 146,998 tCO₂e annually, and a total estimated of 4,409,933t CO₂e as specified within the final PDD 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, 08 July 2011



Thomas Kleiser
Certification Body "climate and energy"
TÜV SÜD Industrie Service GmbH

Munich, 08 July 2011



Sebastian Hetsch
Assessment Team Leader
TÜV SÜD Industrie Service GmbH

Annex 1: Validation Protocol

Table 1 Requirement Checklist

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
A. General Description of the Project Activity				
A.1 Title of the project activity				
Does the used project title clearly enable to identify the unique CDM activity?	2	Yes, the project title indicates brief project activity and location of project activities. The title is: Reforestation of degraded land by MTPL in India.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Are there any indication concerning the revision number and the date of the revision?	2	The version number and date is indicated. The PDD version for GSP is no 03, dated 30 January 2009.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2 Description of the project activity				
Has the project been described in terms of purpose, how the project is undertaken, and the project proponent's view of the project's contribution to sustainable development? (indication on IAS or GMOs in large scale projects)	2, 19	Initially, the project considered 17,986 hectares of land over three states - Orissa, Andhra Pradesh and Chattisgarh. In the course of the validation the area was modified to 14,969.46 ha The species selected for the sequestration is Eucalyptus hybrid, harvested at a 5-year rotation. The Farm Forestry Scheme / Public Private Plantation Scheme is mentioned as a way to safeguard environment and also enrich the forest resources by extensive plantation. Natural generation will be promoted. The project would generate more income opportunities for the farmers of the land on long-term. There is no indication that IAS and GMO will be used for planting.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3 Project participants				
Have the Parties and project participants participating in the project been listed in the table as required?	2	Mangalam Timber Products Limited is the sole project participant of the project. Contact details are provided in Annex 1.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Have all involved Parties provided a valid and complete letter	7	A Letter of Approval (of DNA) indicating the correct title of the project	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl						
of approval and have all private/public project participants been authorized by an involved Party?		was provided.								
Do all participating Parties fulfil the participation requirements as follows: - Ratification of the Kyoto Protocol - Designated a National Authority - Host Party DNA communicated minimum values for forest definition	2	India ratified the KP, and appointed a DNA. The Indian forest definition is given in the table below: http://cdm.unfccc.int/DNA/ARDNA.html?CID=101 <table><tr><td>single minimum tree crown cover value between 10 and 30 per cent</td><td>A single minimum land area value between 0,05 and 1 hectare</td><td>A single minimum tree height value between 2 and 5 metres</td></tr><tr><td>15</td><td>0.05</td><td>2</td></tr></table>	single minimum tree crown cover value between 10 and 30 per cent	A single minimum land area value between 0,05 and 1 hectare	A single minimum tree height value between 2 and 5 metres	15	0.05	2	☑	☑
single minimum tree crown cover value between 10 and 30 per cent	A single minimum land area value between 0,05 and 1 hectare	A single minimum tree height value between 2 and 5 metres								
15	0.05	2								
A.4 Description of location and boundaries of the A/R CDM project activity										
A.4.1 Has the location of the project including Host Party, Region/State/Province and City/town/community been defined?	2, 9, 10, 11	Information on project location in regard to the provinces and districts are provided in the PDD: Province of Orissa – Nabarangpur, Koraput and Malkangiri districts. Province of Andra Pradesh – Srikakulam, Vizianagaram and Visakapatnam districts. Province of Chhattisgarh – Bastar district	☑	☑						
A.4.2 Has an appropriately detailed geographic delineation of the project boundary including a unique identifier been included?	2, 30	Overview maps of the different sites of the project area are provided in the PDD. In addition digital boundary information for the entire project area is provided in GIS (shape-files) and overview maps are provided based on the GIS files (see annex). Each parcel has a unique ID number, as identified in an Excel data-sheet. <u>Corrective Action Request No 1.</u> <ul style="list-style-type: none">The boundary of some parcels is not included in the GIS file provided to the DOE. Include all boundary information in the GIS file. (Ensure also consistency between the GIS database and the Excel file, currently the information on number of parcels included in the	CAR CR	☑ ☑						



Industrie Service

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p><i>project area and overall area differ significantly.)</i></p> <ul style="list-style-type: none"> At time of field visit, different parcels belonging to one farmer had the same ID number. Provide a separate ID for each discrete parcel of the project area. Provide updated maps and Excel files accordingly. Merge the different updated GIS files to one single with a defined coordinate system and provide the file to DOE. <p><u>Clarification Request 1.</u></p> <p>Provide information / reference documentation on GPS field measures and respective training of field staff.</p>		
Is the project boundary under control of the participants geographically delineated?	2, 11	See CARs in section A.4.2	CAR	<input checked="" type="checkbox"/>
Does each discrete parcel of land have a unique identification?	2, 11	See CAR in section A.4.2	CAR	<input checked="" type="checkbox"/>
Have the legal title to the land, rights of access to the sequestered carbon, current land tenure, and land use for each discrete area of land been described?	2, 22, 23,24, 25	Land titles and contracts regarding forwarding of carbon rights to project participants provided and reviewed during onsite visit. Contracts are also subject to monitoring (see section A.7)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is it justified, that during the crediting period, each discrete area of land is expected to be subject to an afforestation or reforestation project activity under the control of the project participants?	2, 20, 27	Each discrete parcel is planned to be reforested. A table with planting years in different districts starting in 2001 until 2008 is provided. Area of strata is subject to monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5 Technical description of the A/R CDM project activity				
A.5.1 Has a description of the present environmental conditions of the project area (including climate, hydrology, soils, ecosystems and land use) been included?	2, 39, 51	<p>Conditions are described in the PDD for the state where the project occurs. Information is provided on:</p> <ul style="list-style-type: none"> Climate (temperature and precipitation) Hydrology (river systems) Soils Ecosystems (forest classification) <p>Land use is predominately bare land, used for marginal agriculture or</p>	CAR	<input checked="" type="checkbox"/>

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		<p>marginal grazing.</p> <p><u>Corrective Action Request No 2.</u></p> <p>Include information on ecosystem of the project area, which is not forest, but waste land.</p> <p><u>Clarification Request 2.</u></p> <p>Provide (scientific) reference for information on climate, hydrology, soils and ecosystem of the project area.</p>		
A.5.2 Have any rare or endangered species been defined as present?	2, 39	<p>A list of rare, endemic, vulnerable and endangered species for each district is included.</p> <p><u>Clarification Request 3.</u></p> <p>Provide information which endangered species occur in the project area. Clarify how the list of endangered species was determined</p>	CR	<input checked="" type="checkbox"/>
A.5.3 Have the species and varieties to be grown been adequately described?	2, 17	<p>The species selected is Eucalyptus hybrid, FRI-4 (E. tereticornis x E. camaldulensis). The selection was based on its coppicing and drought resistant quality. The species has rooting depth of 3 metres and offers greater capillary action.</p> <p><u>Clarification Request 4.</u></p> <p>Provide references (i.e. footnotes) for the above mentioned information on Eucalypt.</p>	CR	<input checked="" type="checkbox"/>
A.5.4 Has the technology to be employed (including environmentally safe and sustainable/renewable technologies) been adequately described?	2, 18 20	<p>The technology applied is described with:</p> <ul style="list-style-type: none"> - Nursery technology: Seedlings of 30 -45 cm will be obtained in 3-5 months time. - Site preparation: Tractor Ploughing / deep-repeated ploughing with country plough is done in one month advance of planting. - Planting techniques: The plant of 30-45 cm (excluding container height) with girth of 1 -2 cm at collar region is used for planting. 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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		<ul style="list-style-type: none"> - Plantation management: The plantations are protected from grazing/browsing animals by means of live fencing - Harvesting: The plants are harvested when they are 5 years old & onwards. - Pits are dug at a spacing of 3m x 1.5m with an aim to accommodate about 900-1000 plants per acre. 		
A.5.5 Has the know-how with specifications of whether it will be transferred to host Parties been adequately described?	2	No transfer of technology from an Annex 1 Country included.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5.6 Has the proposed measures to be implemented to minimize potential leakage been adequately described?	2	<p>Pre-project activity includes marginal agriculture and marginal grazing. It is not identified in the initial PDD how leakage will be minimized</p> <p><u>Corrective Action Request No 3.</u></p> <p>Provide information on measures to minimize leakage in case leakage is identified, in case leakage is identified in the project (see section D2)</p>	CAR	<input checked="" type="checkbox"/>
A.6 Legal title to the land, land tenure and rights to issued tCERs/ICERs				
Have details of the legal title to the land, land tenure and rights to issued tCERs/ICERs been described?	2, 22, 23, 24, 25	<p>The land on which the proposed A/R CDM project is carried out is legally owned by local farmers, as documented by the legal land title of the farmer ("land patta").</p> <p>A tripartite agreement has been signed between the farmer, a rural development bank and Mangalam Timber Products Limited (MTPL). This agreement clarifies the rights and obligation of all three parties.</p> <p>In a separate contract, the farmers authorize MTPL to take necessary steps for getting the Carbon Credit for the plantation. 6-12% of the carbon revenues will go to the farmer.</p> <p>The project participant has signed contracts for all parcels of the project area. Land titles (patta) for all parcels of the project area have been checked, as it was a requirement to obtain the initial credit from the bank to establish the plantation. The title deed (patta) of the farmers involved remains with the bank as deposit.</p>	CAR CR	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> FAR

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		<p>During onsite visit contracts and land titles are reviewed by the DOE for 120 randomly selected plots.</p> <p>First contracts were set up for 12 years, now the time frame is extended in the new contracts.</p> <p>The audit team reviewed the contracts and found to be sufficient to clarify the rights to the issued tCERs, the terms and conditions of the contract apart from the requirements of the CDM are beyond this assessment.</p> <p><u>Corrective Action Request No 4.</u></p> <p>As the land owners (farmers) are not project participant, both the land title, and contractual agreement on carbon rights have to be monitored and verified at time of verification. Include monitoring of land ownership and contractual relations with land holders in the monitoring plan (section E).</p> <p><u>Clarification Request 5.</u></p> <p>Provide information in the PDD that a) tripartite agreement between MTPL, the farmer and the bank, b) land title and c) carbon contract between the farmer and MTPL are available for each parcel.</p>		
A.7 Assessment of the eligibility of lands				
Has the latest version of the AR eligibility procedure been applied?	2	The latest version of "Procedures to demonstrate the eligibility of lands for afforestation and reforestation project activities (Version 01)" has been applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Is adequate evidence provided which demonstrates that</p> <p>a) the land in the project boundary is not forest at project start</p> <p>b) the activity is an afforestation or reforestation by indicating historic land use (reforestation: unstocked by Dec. 1989; afforestation: unstocked >50 y)</p>	2, 12	<p>The project area is bare land with little vegetation.</p> <p>Sources of information include:</p> <ul style="list-style-type: none"> - Land title ("patta"), identifying the land as waste land under Indian definition at time of project start. This is assessed on the randomly selected plots, where title deeds were checked. The title deeds state that the land is wasteland, defined as "METTU BHUMI" (language: "Telegu") in the state of Andhra Pradesh; 	CR	<input checked="" type="checkbox"/>

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		<p>“DONGAR” (language: Oria) in the state of Orissa and “PARAT BUMI” (language: Hindi) in the state of Chattisgar.</p> <p>In order to participate in the project and planting scheme, the bank requires that the land must be classified as “wasteland” according to the respective state. This is an additional evidence sustaining the eligibility of the project area.</p> <ul style="list-style-type: none"> - Remote sensing analysis, identifying the land to be waste land (no forest) in December 1989. Landsat TM data from 31 Oct 1898 and 10 November 1990 was used as basis for land classification on 31 December 1989. - In addition a Participatory Rural Appraisal (PRA) exercise was carried out in the villages adjacent to the project area. In total 600 responses from all seven districts were gathered (random selection of villages). - Also a ground based vegetation survey (baseline study) regarding the baseline vegetation was carried out. <p><u>Clarification Request 6.</u></p> <ul style="list-style-type: none"> • Provide information on the land title (“pata”), sustaining eligibility, in the PDD. <p><u>Clarification Request 7.</u></p> <ul style="list-style-type: none"> • Provide the DOE with the final report on the remote sensing analysis and summarize the main finding in the PDD • Provide a list with all parcels identifying what the land cover on 1898 was. Currently some parcels in Vishakapatnam contain forest. Further several parcels in the analysis are classified as agriculture. Please clarify. 		

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		<p><u>Clarification Request 8.</u></p> <ul style="list-style-type: none"> • Provide DOE with the final report on PRA exercise and summarize the main finding in the PDD (instead of just referring to the document). • Provide DOE with Excel sheets used to analyse the results of the PRA <p><u>Clarification Request 9.</u></p> <ul style="list-style-type: none"> • Provide information in the PDD on the assessment of the baseline vegetation, and provide background documents to DOE. 		
Has the assessment of the eligibility of the land been adequately described?	2, 12	See CRs above	CR	<input checked="" type="checkbox"/>
A.8 Approach for addressing non-permanence				
Has the approach to address non-permanence been specified (tCER, ICER)?	2	<p>The issuance of tCER for the net anthropogenic GHG removals by sinks achieved by the proposed A/R CDM project activity is chosen.</p> <p><u>Clarification Request 10.</u></p> <p>Include in PDD how to avoid of coincidence of peaks in carbon stocks and verification, according to CDM VVM (paragraph 151).</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.9 Estimated amount of net anthropogenic GHG removals by sinks				
Has the table on estimated net anthropogenic removals over the chosen crediting period been completed?	2, 8	<p>The table of estimated amount of net anthropogenic GHG removals is provided.</p> <p><u>Corrective Action Request No 5.</u></p> <p>Update the table according to the changes made in section A, C and</p>	CAR	<input checked="" type="checkbox"/>

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		D.		
A.10 Public Funding				
Is indication on public funding (from Annex I countries) included to the PDD?	2	There is no public funding from Annex I countries. The costs for the establishment of the project activities are paid by local commercial bank loans	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Duration of the Project Activity / Crediting Period				
B.1 Starting date of the project and the crediting period				
Does the starting date reflect the date of implementation (or when real action began that resulted in changes to the actual net removals) and has it been adequately justified?	2, 22	PDD states the 06 July 2001 as the starting date of the project, based on the first loan disbursement from the bank to a farmer. The branch of the bank confirmed in writing that the agreement was the first. <u>Clarification Request 11.</u> Provide evidence that no loan was provided by other banks previously to 06 July 2001.	CR	<input checked="" type="checkbox"/>
B.2 Expected operational lifetime				
Has the expected operational lifetime been defined?	2	Operational lifetime defined as 50 years, 0 months. The operational life time is based on the assumption that the plantation will be coppiced twice and two times replanted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.3 Choice of crediting period				
Is the project fixed or renewable and does it has an appropriate crediting period length defined (in years and months)?	2	Project proponent selected fixed crediting period, defined as 30 years, 0 months.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C. Application of Baseline and Monitoring Methodology				
C.1 Title and reference of approved methodology				

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Has the approved methodology and any other methodologies or tools used been properly referenced (including version no.)?	2	Used methodology is correctly referenced, including version number. Tools and methodologies used are not mentioned. <u>Clarification Request 12.</u> For matters of transparency, include in C.1 a list of all used and necessary tools in the PDD, including the version number.	CR	<input checked="" type="checkbox"/>
Has the most current version of the methodology been used?	2	The version 4 of the approved consolidated methodology was used, valid for requesting registration until 17 Mar 2012. PDD format, eligibility procedure, used corresponds to the version 4 available still valid for registration.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2 Assessment and justification of selected methodology				
AR-ACM0001 (applicability criteria)				
Does the project use the baseline approach from 5/CMP.1 paragraph 22 of the CDM A/R modalities and procedures: "Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary"?	2	The baseline approach 22a (Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary) is applied in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Conditions of applicability				
Is the selected AR project activity implemented on degraded lands, which are expected to remain degraded or to continue to degrade in the absence of the project, and hence the land cannot be expected to revert to a non-degraded state without human intervention? Exist evidence that lands are degraded or degrading been sustained with credible information on at least one of the aspects mentioned in the methodology?	2, 15, 46	The project is implemented on degraded lands, which are expected to remain degraded or to continue to degrade in the absence of the project, and hence the land cannot be expected to revert to a non-degraded state without human intervention. The main evidence is the land title ("patta") which states that the land is waste land <u>Corrective Action Request No 6.</u> Apply the tool to identify degraded lands as required by the methodology. Describe the references used and provide the documents to DOE	CAR	<input checked="" type="checkbox"/>

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		if not already available.		
Encroachment of natural tree vegetation that leads to the establishment of forests according to the host country definition of forest for CDM purposes is not expected to occur;	2, 12, 51	<p>No encroachment of tree vegetation is possible in the project area seems likely, in particular due to marginal grazing in the area.</p> <p><u>Clarification Request 13.</u></p> <p>Provide information in the PDD why no natural encroachment of trees will occur in the project area. Provide respective evidence to the DOE.</p>	CR	<input checked="" type="checkbox"/>
Flooding irrigation is not permitted;	2, 29	<p>Flooding irrigation will not be used, as also assessed during field visits. Dry climate and water scarcity in most areas makes flooding irrigation not applicable in the project area.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
If project activities are implemented on organic soils, drainage is not allowed and not more than 10% of the project area may be disturbed as result of soil preparation for planting;	2, 15, 27	<p>The soils are heavily degraded and with low organic content. Carbon content is analysed in soil report from Koraput as example for the project area. In the report the soil fertility index in the district of Koraput is presented, inter alia identifying the carbon content. In addition 27 soil sample from the project area were analysed according to their nutrient and carbon content.</p> <p>Before planting of the project area, area-wide ploughing is conducted in the project area, as required for the establishment of the plantations.</p> <p><u>Clarification Request 14.</u></p> <p>Provide information in the PDD on carbon content of the soils in the entire project area. In particular provide evidence and reference, that the project activity is not implemented on "organic soils".</p>	CR	<input checked="" type="checkbox"/>
The establishment of the project shall not decrease availabil-	2, 16		CAR	<input checked="" type="checkbox"/>

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ity of fuelwood.		<u>Corrective Action Request No 7.</u> Include information on availability of fuelwood in the PDD as required by the methodology		
C.3 Assessment of the selected carbon pools and emission sources				
Are the carbon pools considered in the project activity in line with the requirements of the methodology? ("alternatively No" = it allows also for exclusion if transparent and verifiable information can be provided)	2, 8	Carbon pools selected comply with the requirements of the methodology: Above and below ground carbon pools were selected, dead wood, litter and soil organic carbon are conservatively neglected. Exclusion of soil organic carbon was made based on the respective tool: "Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities" <u>Corrective Action Request No 8.</u> Apply the tool "Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities" completely and provide respective evidence	CAR	<input checked="" type="checkbox"/>
Has an assessment of the appropriateness of choice of emission sources selected to the project activity been included to the PDD?	2, 8	Emission sources included are burning of biomass and combustion of fossil fuel. Burning of biomass is not considered to be relevant in this particular project and thus excluded. <u>Corrective Action Request No 9.</u> Include only emissions according to the latest version of the methodology.	CAR	<input checked="" type="checkbox"/>
C.4 Description of ex ante stratification				

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<p>Have the strata been defined by:</p> <p>(i) Using procedures to stratify lands for A/R project activities under the CDM when approved by the EB; or</p> <p>(ii) On the basis of parameters that are key variables in any method (e.g., growth models, or yield curves/tables) used to estimate changes in biomass stocks:</p> <ul style="list-style-type: none"> - For baseline net GHG removals by sinks - For actual net GHG removals by sinks (according to the project planting plan) 	2	<p>A stratification is carried out per district.</p> <p><u>Corrective Action Request No 10.</u></p> <ul style="list-style-type: none"> • Carry out stratification according to the methodology. (Based on a) key parameters to identify baseline carbon stock and carbon stock changes, and b) project planting/management plan). • Provide respective reference for the stratification. • Provide the result of the stratification per parcel of the project area • Provide information on baseline vegetation and baseline carbon stock. 	CAR	<input checked="" type="checkbox"/>
Are the results of the stratification included to the PDD?	2	See CAR above		
C.5 Identification of baseline scenario				
C.5.1 Description of the application of the procedure to identify the most plausible baseline scenario	2, 51	<p>The “Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities” is applied in section C.6., see comments below.</p> <p><u>Corrective Action Request No 11.</u></p> <p>As requested per methodology, use the “Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities”.</p>	CAR	<input checked="" type="checkbox"/>
C.5.2 Is the description of the baseline scenario applying to each stratum reasonable?	2	See CAR above.		
C.6 Assessment and demonstration of additionality				
AR-ACM0001 version 03	2	<p>Additionality is demonstrated as per the “Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities”.</p> <p><u>Corrective Action Request No 12.</u></p>	CAR	<input checked="" type="checkbox"/>

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		Provide the correct title of the tool and apply all required steps.		
Step 0. Preliminary screening				
Has evidence been provided that the starting date of the A/R CDM project activity was after 31 December 1999, and that the incentive from the planned sale of GHG emission allowances was seriously considered in the decision to proceed with the project activity (documentation that was available to third parties at, or prior to, the start of the project activity)?	2, 3, 25, 63 - 72	<p>The project started on 06 July 2001, as discussed in section B.1. This is stated per contract between the farmer and the bank, and further confirmed by the bank that this was the first contract that was set up.</p> <p>Early CDM consideration was shown in a board meeting of MTPL management on 24 April 2001.</p> <p>Clarification Request 15.</p> <ul style="list-style-type: none"> • Provide a scanned copy of the board meeting to the DOE. • Provide a timeline for the CDM project, including first CDM consideration, project start, stakeholder involvement, baseline assessment etc. Clarify in the PDD which action on CDM project documentation development was taken in the first five years. 	CR	<input checked="" type="checkbox"/>
Step 1. Identification of alternative land use scenarios to the proposed A/R CDM project activity				
<p>Have realistic and credible land-use alternative(s) [currently existing or that existed some time since 31 Dec. 1989] been identified (sub-step 1a), at least including:</p> <ul style="list-style-type: none"> • Continuation of the pre-project land use • AR of the land within the project boundary performed without being registered as the A/R CDM project activity <p>If applicable,</p> <ul style="list-style-type: none"> • forestation of at least a part of the land within the project boundary of the proposed A/R CDM project at a rate resulting from <ul style="list-style-type: none"> ○ legal requirements; ○ or extrapolation of observed forestation activities in the geographical area with similar 	2, 16	<p>Land use alternatives considered are:</p> <ol style="list-style-type: none"> a) Reforestation without CDM component b) The land is used for agricultural practices c) Continuation of the present scenario <p>Land use scenario b) Agriculture is described as not feasible, since due to the degraded soils.</p> <p>Clarification Request 16.</p> <ul style="list-style-type: none"> • Provide more detailed description for the different land use scenario. • Scenario a) should be divided in two scenarios: one referring to reforestation by the farmer on their own (without MTPL); and another scenario referring to the project activity without CDM component (but still with involvement of MTPL to secure raw material) 	CR	<input checked="" type="checkbox"/>

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socioeconomic and ecological conditions to the proposed A/R CDM project activity occurring in a period since 31 December 1989, as selected by the PP.		<ul style="list-style-type: none"> Scenario b) should refer explicitly to high productive agriculture, as there was marginal agriculture / grazing on the project area before project start Scenario c) should include marginal farming/grazing, as this is the baseline conditions as observed during the field visits 		
Are the alternative(s) in compliance with all applicable legal and regulatory requirements (sub-step 1b)? If that is not the case, an alternative can only be considered if applicable legal or regulatory requirements are systematically not enforced or the non-compliance with those requirements is widespread, i.e. prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area;	2	<p>All scenarios are in consistent with legal and regulatory requirements.</p> <p>Clarification Request 17. Provide the references / documents mentioned in the PDD to the audit team (either scanned or the internet links), pointing to the respective page or paragraph.</p>	CR	<input checked="" type="checkbox"/>
Is the project scenario not the only remaining alternative?	2	The project scenario is not the only remaining alternative	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
STEP 2. Barrier analysis				
Is a complete list of barriers developed that prevent the different alternatives to occur (sub-step 2a)?	2, 54, 55, 56, 57, 58, 59	<p>Barrier analysis is not included in the GSP PDD discussed during the onsite visit. PPs decided to include a barrier analysis in the final PDD.</p> <p>Clarification Request 18. Include barriers in case there are any prohibiting one of the land use scenarios identified in step 1.</p>	CR	<input checked="" type="checkbox"/>
Is transparent and documented evidence provided on the existence and significance of these barriers?	2	See CR above	CR	<input checked="" type="checkbox"/>
Is it determined which land use scenarios identified in the Sub-step 1b are prevented by at least one of the barriers listed in sub-step 2a (sub-step 2b)?	2	See CR above	CR	<input checked="" type="checkbox"/>
Is it substantiated that the barrier identified as preventing realization of a land use scenario is valid and conclusive in the context of the land use scenario in question (sub-step 2b)?	2	See CR above	CR	<input checked="" type="checkbox"/>



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If the land within the boundary of the proposed A/R CDM project was at least partially forested since 31 December 1989 and the land is not a forest at the project start, is it demonstrated that under the current conditions (legal, financial, socio-economical, ecological or others) repetition of the forestation performed without being registered as the A/R CDM project activity is not possible?	2	See CR above	CR	<input checked="" type="checkbox"/>
Is transparent and documented evidence provided on the existence and significance of these barriers?	2	See CR above	CR	<input checked="" type="checkbox"/>
Has the barrier analysis allowed determining whether the proposed A/R CMD project is additional (sub-step 2c)?	2	See CR above	CR	<input checked="" type="checkbox"/>
STEP 3. Investment analysis				
Is the analysis method identified appropriately (sub-step 3a)?	2	In addition to barrier analysis also an investment analysis has been carried out (see comment above).	CR	<input checked="" type="checkbox"/>
In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	2	A simple cost analysis was included to the final PDD. It was demonstrated that the planting activity occurs in the lands of the farmers who will sell the pulpwood to MTPL. The PP does not receive any other benefit from this planting activity rather than the raw material and the CERs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is it documented that the incomes and costs associated with each of the land use scenarios are not prevented by any barrier. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	2	n/a	n/a	n/a
In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	2	A benchmark investment analysis was carried out. 12.5% is taken as benchmark. The benchmark is based on the required rate of return, as this is the interest rate that the company had to pay for a loan. The loan was crucial to the company as the company was declared sick by the Board of Industrial & Financial Reconstruction	CAR	<input checked="" type="checkbox"/>

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		<p>(BIFR) in December 1998.</p> <p>Therefore, 12.5% is the required rate of return in order to run the project from MTPLs point of view.</p> <p>The respective document from MTPL was reviewed.</p> <p>An investment analysis on costs of project implementation was conducted, to show that the project is not feasible without CDM finance.</p> <p>In a further analysis, the benchmark analysis was removed and a simple cost analysis used instead.</p> <p><u>Corrective Action Request No 13.</u></p> <ul style="list-style-type: none"> • The costs for plantation establishment are not carried by MTPL, but by the farmer. Therefore it cannot be included in the investment analysis of MTPL. <p>Based on this provide the proof for additionality according to the AR-CDM additionality tool. Provide reference to input parameter</p> <ul style="list-style-type: none"> • Note that all of the land use scenarios leading to forest in the baseline must be addressed. 		
In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	2	See CAR above.	CAR	<input checked="" type="checkbox"/>
In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	2	See CAR above	CAR	<input checked="" type="checkbox"/>
<p>Is a sensitivity analysis included?</p> <p>- Is the initial conclusion regarding the financial attractiveness of the baseline scenario robust to reasonable variations in the critical assumptions?</p> <p>- Is the outcome of the sensitivity analysis that the proposed AR project activity would unlikely to be financially most attrac-</p>	2	See CAR above	CAR	<input checked="" type="checkbox"/>

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tive?				
STEP 4. Common practice analysis				
Is the project activity common practice in the region?	2, 61	<p>During the onsite visits several Eucalyptus plantations were observed in the region where the project is implemented</p> <p><u>Corrective Action Request No 14.</u> Apply step 4 of the tool “common practice analysis”, as required by the applied methodology (see paragraph 32-34 of the tool). Define the reference area for the common practice analysis, and in particular discuss other regional reforestation activities, e.g. from neighbouring paper companies (e.g. in Jeypore) and framers conducting reforestations on their own, as well as initiatives by the forest service.</p>	CAR	<input checked="" type="checkbox"/>
Has a common practice analysis been carried out in line with the requirement of the proposed A/R CDM project and are there essential distinctions between them?	2, 61	See CAR above	CAR	<input checked="" type="checkbox"/>
(If there is reforestations in the region) Are there fundamental and verifiable changes in circumstances when compared to other projects	2, 61	See CAR above	CAR	<input checked="" type="checkbox"/>
C.7 Estimation of the ex ante baseline net GHG removals				
Have the ex ante baseline removal calculations been provided in the table, do they correspond to the chosen crediting period and use the approach provided in the selected approved methodology?	2, 49, 12, 51	<p>The ex ante baseline net GHG removals are assumed by proponent as zero, based on the level of degradation. During onsite visit some vegetation in the baseline was observed. (see also sections A.7 and C.4) <u>Clarification Request 19.</u> Provide information on the assessment of baseline carbon stock changes per strata based on a survey or scientific, regional specific literature or other relevant data sources. Provide calculations accord-</p>	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		ing to the methodology. Take into consideration that in some parcels baseline vegetation was present.		
AR-ACM0001, section II.4 (Estimation of baseline net GHG removals by sinks)				
Have the changes in carbon stock of above-ground and below-ground biomass of non tree vegetation been assumed to be zero for all strata in the baseline scenario?	2	See CR above	CR	☑
Is it assumed that the sum of the changes in the carbon stocks of dead wood and litter carbon pools is zero for all strata in the baseline scenario?	2	See CR above	CR	☑
Have the changes in carbon stock in soil organic carbon been assumed to be zero for all strata in the baseline scenario?	2	See CR above	CR	☑
Is the baseline net GHG removal considered for above and below ground biomass of trees in the baseline?	2	See CR above	CR	☑
4.1 Carbon stock changes in above-ground and below-ground tree biomass	2			
For estimation of carbon stock changes in above- and below-ground tree biomass in the baseline, is the formula included to the PDD and correctly applied?	2	See CR above	CR	☑
Is the baseline annual net carbon stock change in above-ground and below-ground biomass, estimated using one of following two methods (increment data vs. stock data): <ul style="list-style-type: none"> Method 1: Carbon gain-loss method Method 2: stock change method 	2	See CR above	CR	☑
Has the corresponding formula been applied correctly, are used values in line with onsite conditions and are they clearly sustained / referenced?	2	See CR above	CR	☑
In regard to Dj (wood density), BEF1,j (biomass expansion factor for conversion of increment), BEF2,j (biomass expansion factor for conversion of volume), CFj (carbon fraction for	2	See CR above	CR	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
species) and Rj (root to shot ratio). Have values been chosen with priority from local values to IPCC defaults?				
If data from global or national databases has been used, have values been confirmed through local data from literature or inventory?	2	See CR above	CR	☑
4.2 Steady state under the baseline conditions				
If the baseline net GHG removals by sinks are greater than zero, has it been assumed to be constant until steady state is reached under the baseline conditions?	2	See CR above	CR	☑
C.8 Completion of the baseline study				
Have the date of completion and the name of the person (or entity) determining the baseline been specified?	2, 51	Ms Tulika Biswas from Birla Carbon Management Consulting (P) Limited completed the baseline study on 27 March 2007. Clarification Request 20. Clarify if other people were involved in the baseline study (see also request regarding the time line of the project in section C.6)	CR	☑
D. Estimation of ex-ante Actual Net Removals, Leakage and Net Anthropogenic Removals				
D.1 Estimation of ex ante actual net removals				
Are the calculations of ex-ante actual net removals for the crediting period consistent with the approach in the selected methodology and adequately defined?	2, 8	An overview of general formulas used to calculate ex-ante actual net GHG removal is given. However the formulas are not fully in compliance with the methodology. Details on the calculation and input parameters are not fully provided. An Excel calculation for GHG removal was provided to the audit team and reviewed. The volume equation for eucalyptus is taken from scientific literature (Volume equations for forests in India, Nepal and Bhutan, FSI, 1996) Tree growth over time (diameters and height) is obtained from project	CAR	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p>database.</p> <p><u>Corrective Action Request No 15.</u></p> <p>Calculate the ex-ante actual net GHG removals according to the methodology (see section II 5).</p> <p>Provide the information required by the PDD guidelines for AR-CDM projects.</p> <p>In particular provide:</p> <ul style="list-style-type: none"> - Info on how tree biomass was calculated (BEF or allometric method. - Provide all input parameters with respective sources/references as per section II.7 of the methodology - Provide the results of the sub steps of the calculations. - Provide the project database used for estimations of diameters and height. - Consider/ address mortality in growth estimates - Ensure to use actual annual increment not Mean Annual Increment for estimation of increment in the Excel file - Ensure to have appropriate parameters (Root-to-Shoot ratio, BEF and increment) for Eucalyptus coppice. 		
Estimation of changes in carbon stocks in the project scenario (section II.5)	2	See CAR in D1	CAR	<input checked="" type="checkbox"/>
Has the formula for the calculation of actual changes in living biomass, dead wood, litter and soil organic carbon stocks been applied correctly?	2	See CAR in D1	CAR	<input checked="" type="checkbox"/>
Has the annual change in carbon stock in all carbon pools for year t been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values?	2	See CAR in D1	CAR	<input checked="" type="checkbox"/>
5.1.1 Tree Biomass				

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
Has the mean carbon stock in above- and below-ground biomass per unit area been calculated under the biomass Expansion Factors (BEF) method, or the Allometric Equations method?	2	See CAR in D1 The biomass expansion method was applied. BEF of 1.48 is obtained from IPCC. Clarification Request 21. Clarify if the volume equation used in the estimation is only referring to stem wood or to total above-ground biomass. Clarify if national or local values are available.	CR	<input checked="" type="checkbox"/>
Have all the steps followed according the methodology requirements for the selected method?	2	See CAR in D1	CAR	<input checked="" type="checkbox"/>
<i>5.1.2 Dead Wood (if selected)</i>				
Has the changes in carbon stocks of dead wood been conservatively neglected for ex ante estimates? (differentiated to standing and lying deadwood)		N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>5.1.3 Litter (if selected)</i>				
Has the changes in carbon stocks of litter been conservatively neglected for ex ante estimates?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>5.1.4 Soil carbon (in selected)</i>				
Has the changes in carbon stocks of soil carbon been conservatively neglected for ex ante estimates?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Estimation of GHGe (section II.5.2)				
Is the increase of GHG emissions (GHGE) estimated according to methodology implications and is sustained and references input data used?	2, 8	Clarification Request 22. Include information on estimation of GHG emissions as per section II.5.2 of the methodology.	CR	<input checked="" type="checkbox"/>
Have non-GHG emissions due to biomass burning been assessed according the latest version of the tool: Estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of a A/R CDM pro-	2, 8	See CAR in D1	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
ject activity				
Data and parameters that are available at validation				
Is the list of parameters presented in chapter D.1 considered to be complete with regard to the requirements of the applied methodology (section II.8)?	2	See CAR in D1	CAR	☑
A BSL, i, y - area of baseline strata i Is the parameter and are requirements as per methodology included to the PDD?	2	See CAR in D1	CAR	☑
BEF _{1,j} – Biomass expansion Factor Is the parameter and are requirements as per methodology included to the PDD?	2, 52	BEF is 1.48 according to IPCC GPG. See CR 20	CR	☑
BEF _{2,j} ; BEF _{2, DS} Is the parameter and are requirements as per methodology included to the PDD?	2, 52	See CAR <i>in D1</i>	CAR	☑
CF _{DW} – Carbon fraction of dry matter in dead wood Is the parameter and are requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
CF _j , CF _{DS} Is the parameter and are requirements as per methodology included to the PDD?	2, 52	<u>Corrective Action Request No 16.</u> Provide information on the value for CF and the respective source (see also CAR in section D.1)	CAR	☑
CF _{LI} Is the parameter and are requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	n/a	n/a
D _j , D _{DS} Is the parameter and are requirements as per methodology included to the PDD?	2, 52	D is 0.578 according to IPCC GPG. <i>See CAR in D1</i> <u>Clarification Request 23.</u>	CR	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		Clarify if national or local values are available for wood density.		
D _{BW,dc} Is the parameter and are requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	n/a	n/a
F _i (DBH,H) Is the parameter and are requirements as per methodology included to the PDD?	2, 18	The volume equation for eucalyptus is taken from scientific literature (Volume equations for forests in India, Nepal and Bhutan, FSI, 1996) See CAR in D1	CAR	☑
I _{v,j,i,t} Is the parameter and are requirements as per methodology included to the PDD?	2, 9	Increment data for diameter and height is taken from project database See CAR in D1	CAR	☑
nTR _{j,i,t} Is the parameter and are requirements as per methodology included to the PDD?	2	See CAR <i>in D1</i>	CAR	☑
R _j Is the parameter and are requirements as per methodology included to the PDD?	2, 52	R is 0.25 according to IPCC GPG. See CAR in D1	CAR	☑
R _{lj} Is the parameter and are requirements as per methodology included to the PDD?	2	See CAR <i>in D1</i>	CAR	☑
V _{tree,j,i,t} Is the parameter and are requirements as per methodology included to the PDD?	2	See CAR <i>in D1</i>	CAR	☑
Delta C	2	See CAR <i>in D1</i>	CAR	☑
T equilibrium	2	See CAR <i>in D1</i>	CAR	☑
D.2 Estimation of ex ante leakage				
Are the calculations of ex ante leakage for the crediting period consistent with the approach in the selected methodology	2, 53	No displacement of grazing activities or fuel wood collection activities is assumed in the project.	CAR	☑



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CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
and adequately defined?		During onsite visits occasional grazing and framing was observed as pre-project activity. <u>Corrective Action Request No 17.</u> Apply the tool "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM activities." Address if there is any leakage from agriculture. <i>(NB: leakage from agriculture is NOT foreseen by the methodology)</i>		
AR-ACM0001_ver2, section II.6				
Estimation of $LK_{ActivityDisplacement}$ - Carbon stock decreases caused by displacement of pre-project agricultural activities, grazing and fuelwood collection: Have the emissions from $LK_{ActivityDisplacement}$ been estimated adequately and in line with the methodology requirements and has sufficient evidence provided on input values?	2, 53	See CAR above	CAR	<input checked="" type="checkbox"/>
Has the calculation of leakage due to conversion of land to grazing land been estimated using the tool: "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity"?	2, 53	See CAR above	CAR	<input checked="" type="checkbox"/>
E. Monitoring Plan				
E.1 Monitoring of the project implementation				
E.1.1 Has data to be collected for monitoring of forest establishment and management been listed adequately?	2, 14	Data to be monitored is listed. There is a list of forest establishment and management activities considered but not all of them included in the table. <u>Corrective Action Request No 18.</u> Include the parameters to monitor forest establishment in the table as required by the PDD guidelines.	CAR	<input checked="" type="checkbox"/>
In the collection of data for the monitoring of the project	2, 14	Measurements follow typical forest mensuration as described in the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
boundary, forest establishment or of forest management, do any measurements not follow typical forest mensuration practices and if so have they been adequately described?		manual on "Quality Management System in Plantation & Forestation". Information on DBH measurement and height measurement is included.		
E.1.2 Have the SOPs and quality control/quality assurance (QA/QC) procedures applied been adequately described according to the methodology requirements?	2, 32	The data collection and organization will be based on the standard operating procedures (SOPs) and QA/QC procedures. SOPs are defined in the manual on "Quality Management System in Plantation & Forestation". For QA/QC, 10% of sample plots will be re-measured	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2 Sampling design and stratification				
AR-ACM0001_ver3 Section III.2				
Has the ex ante stratification of the project area been included to the PDD, if not, is it justified?	2	Stratification is done according to the planting year. Clarification Request 24. <ul style="list-style-type: none"> Clarify how many strata are defined. Strata should be homogeneous units and help increasing measuring precision. The stepwise approach in the PDD is not required by the methodology. Include in the PDD the conditions for ex-post strata update. 	CR	<input checked="" type="checkbox"/>
Have the conditions for ex-post strata update been included to the PDD / Monitoring Plan?	2	No conditions for ex-post strata update included. See CR above	CR	<input checked="" type="checkbox"/>
Is the sampling framework determined using the tool for the "Calculation of the number of sample plots for measurements within A/R CDM project activities"? (section III.2.2)	2	The tool for the "Calculation of the number of sample plots for measurements within A/R CDM project activities" has been applied to determine the number of sample plots, as discussed during the onsite visit (not included in the GSP PDD). 95% confidence level and 10% precision was taken as input parameters, and a variation of 30%. As a result it was calculated, that 1461 sample plots were needed to reach the desired precision level at the given confidence. Sample plots will be 20m x 20m (=400m ²). Parcels for the sample plot were selected systematically.	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p><u>Clarification Request 25.</u></p> <ul style="list-style-type: none"> • Provide the sheet to calculate the number of sample plots to the audit team. • Clarify why 30% was used as input parameter for variation • Ensure to locate the sample plots randomly with the parcel, to avoid any bias. • Ensure to calculate the number of sample plots per strata as defined in the first part of section E.2. 		
E.3 Monitoring of the baseline net removals				
Is monitoring of the baseline net removals required by the selected methodology?	2	Baseline monitoring not required as per methodology.	☑	☑
E.4 Monitoring of the actual net removals				
Has the data to be collected in order to monitor the <u>changes in carbon stock</u> resulting from the project been adequately defined?	2, 14	<p>A list with data to be collected is available in the PDD.</p> <p><u>Corrective Action Request No 19.</u> Ensure consistency with the requirements and monitoring parameter of the applied methodology.</p>	CAR	☑
A _i ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2, 14	Parameter is included as well as monitoring requirements. See CAR 19	CAR	☑
a _{i,sp} ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
A _{sp,i} ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	Parameter not included. See CAR 19	CAR	☑
B _{LI_wet,i,sp} ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
C _{SOCsample,i,p,t} ; is the parameter included and are monitoring	2	N/A, as this parameter is not used in the project (carbon pool conser-	☑	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
requirements as per methodology included to the PDD?		vatively neglected)		
D _{n,i,t} ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
DBH, is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	Parameter is included as well as monitoring requirements. See CAR 19	CAR	☑
H; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	Parameter is included as well as monitoring requirements. See CAR 19	CAR	☑
L, is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
MP _L ; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
N; is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	N/A, as this parameter is not used in the project (carbon pool conservatively neglected)	☑	☑
t1 and t2, is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	See CAR 19	CAR	☑
E.4 Data to be collected to monitor GHG emissions by source				
Has the data to be collected in order to monitor the <u>GHG emissions</u> that are increased as a result of the project activity within the project boundary been adequately defined?	2, 14	No burning of biomass expected in the project and not foreseen to be monitored in the methodology.	☑	☑
Are the procedures for measurements in the monitoring of the changes in carbon stocks or the monitoring of GHG emissions increased in the project clearly defined and do they follow typical forest mensuration practices?	2	See above	☑	☑
E.5 Leakage				
E.5.1 If monitoring of leakage is required by the selected methodology has this been stated and has the data and information that will be collected to monitor leakage been ade-	2, 53	Leakage is not considered in this project. During onsite visit marginal grazing and marginal agriculture was observed in the baseline condition.	CR	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
quately defined?		<p><u>Clarification Request 26.</u></p> <p>If required, include parameters on monitoring of leakage as defined in the tool to estimate leakage (see section D.2)</p>		
Are the procedures for measurements for the monitoring of leakage clearly defined and do they follow typical forest mensuration practices?	2, 53	Leakage is not considered in this project See CR above	CR	<input checked="" type="checkbox"/>
E.5.2 Have procedures for the periodic review of the implementation of activities and measures to minimize leakage been adequately defined?	2, 53	Leakage is not considered in this project See CR above	CR	<input checked="" type="checkbox"/>
E.6 QA/QC procedures undertaken for data monitored				
Have QA/QC procedures been defined appropriately and are explanations of procedures (including their absence) reasonable?	2	<p>Procedures are provided in a list with all parameters that are not included in E.1.2</p> <p><u>Clarification Request 27.</u></p> <p>Update QA/QC procedures, only if not included in E.1.2</p>	CR	<input checked="" type="checkbox"/>
E.7 Operational and management structure of project operator				
Has the operational and management structure that the project operator will implement in order to monitor actual removals and leakage by the project been adequately defined?	2	<p>The operational management structure has been described for all involved partners in the monitoring process. Professional staff of MTPL will be responsible for undertaking periodical field measurement and data processing.</p> <p><u>Clarification Request 28.</u></p> <p>Provide information on the management structure for monitoring in the PDD.</p>	CR	<input checked="" type="checkbox"/>
E.8 Person applying monitoring plan				
Has the person or entity applying the monitoring plan been	2	The entity applying the monitoring plan is Birla Carbon Management	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
named, are they listed as a project participant and has contact information been provided?		Consulting Pvt. Ltd. It is not listed as a project participant. However during onsite discussion it was mentioned that MTPL will be in charge of implementing the monitoring plan <u>Clarification Request 29.</u> Identify who is applying/implementing the monitoring plan		
F. Environmental Impacts of the Project				
F.1 Documentation of analysis of environmental impacts				
Has an analysis of the environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary been adequately documented?	2, 38, 39	It is mentioned that the project will generate positive impact on environment. Forest restoration is also indicated for protection and production. No Environmental Impact Assessment is required according to India legislation <u>Clarification Request 30.</u> <ul style="list-style-type: none"> • Provide reference to the Indian EIA notification • <i>Provide reference to impacts concerning soil, water and biodiversity, as stated in the PDD.</i> • <i>Provide the internal environmental impact assessment to the audit team</i> 	CR	<input checked="" type="checkbox"/>
Does the analysis include (where applicable) adequate information on hydrology and soils, and risk of fires, pests and diseases?	2, 38, 39	See CR above	CR	<input checked="" type="checkbox"/>
F.2 Significant negative impacts				
If any negative impact is considered significant by the project participants or the host Party, has a statement that the project participants have undertaken an environmental impact assessment in accordance with the procedures required by the host Party (including conclusions and references to support-	2, 38, 39	No significant negative impacts have been envisaged by the project activity. <u>Clarification Request 31.</u>	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
ing information) been provided?		Discuss any possible negative effects of Eucalyptus plantations.		
F.3 Remedial measures to address impacts				
Has a description of the planned monitoring and remedial measures to address significant environmental impacts been adequately defined?	2	Not required as no significant impacts are projected.	n/a	n/a
G. Socio-economic Impacts of the Project				
G.1 Documentation of analysis of socio-economic impacts				
Has an analysis of the socio-economic impacts including impacts outside the project boundary been adequately documented?	2, 16, 38, 39	<p>The socio economic impact is provided in terms of employment generated by the reforestation activity since 2001 in the three states. A PRA exercise was conducted, as well as local stakeholder involvement through meetings in villages before project implementation.</p> <p><u>Clarification Request 32.</u></p> <ul style="list-style-type: none"> • Provide an analysis on socio-economic impacts, as required by the PDD guidelines. Include if applicable information on local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuel wood and other forest products • Issues regarding contracts on carbon rights should be discussed in section A.6 	CR	☑
Does the analysis adequately include (where applicable) information on local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuel wood and other forest products?	2, 16, 38, 39	<p>There is no information on local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuel wood and other forest products.</p> <p>See CR above</p>	CR	☑
G.2 Significant negative impacts				
If any negative impact is considered significant by the project participants or the host Party, has a statement that the project participants have undertaken a socio-economic impact assessment in accordance with the procedures required by the	2, 16, 38, 39	No negative impacts are considered (no competition with food production).	☑	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
host Party (including conclusions and references to supporting information) been provided?				
G.3 Remedial measures to address impacts				
Has an adequate description of the planned monitoring and remedial measures to address significant socio-economic impacts been provided?	2	No negative impacts are considered.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H. Stakeholder Comments				
H.1 Description of how stakeholder comments have been invited and compiled				
Has a description of how stakeholder comments have been invited and compiled been provided and has it been undertaken in an open and transparent manner that facilitates comments being received and has the project been described in a manner that allows local stakeholders to understand the project?	2, 42, 43, 44, 45	<p>Local stakeholder meetings were conducted prior to project implementation by MTPL staff in the villages to inform the farmers and provide information on the project.</p> <p>On 11 June 2007 a stakeholder consultation explicitly for issues regarding carbon credits and carbon rights was conducted (in Orissa)</p> <p><u>Clarification Request 33.</u></p> <ul style="list-style-type: none"> • The process of how stakeholder comments have been invited must be addressed in further detail the PDD. Give information on number of people having attended the meeting and where they came from. • Provide summary of the comments received from the stakeholder consultation before project start (section H.2) • Explain how the comments were integrated (section H.3) • Provide information on stakeholder meetings before project implementation and include this information in the PDD. Provide respective evidence to the audit team. 	CR	<input checked="" type="checkbox"/>
H.2 Comments received				
Have stakeholders who made comments been identified and has a summary of the comments been provided?	2, 42, 43, 44, 45	See CR above	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
H.3 Report on due account				
Has an explanation on how due account has been taken regarding the received comments from stakeholders been provided?	2, 42, 43, 44, 45	See CR above	CR	<input checked="" type="checkbox"/>
Annexes				
Annex 1 Contact information on project participants				
Is contact information on participants of the project complete?	2	Yes, information is complete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annex 2 Public funding				
Has information been provided from Parties listed in Annex 1 on sources of public funding for the project which affirms that funding does not result in a diversion of official development assistance and is separate from and not counted towards the financial obligations of those Parties?	2	No public funding that will result in a diversion of official development assistance and financial obligations of any Parties under UNFCCC.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annex 3 Baseline information				
Has information additional to that required in Section C or in the approved methodology been provided (or stated as not required)?	2	Baselines estimates are explained in further details. It is mentioned that strata boundaries were also delineated and will be included with the version to be submitted for validation, but this information is missing. See CARs in section C4 and C5 <u>Clarification Request 34.</u> Provide information on the baseline study.	CR	<input checked="" type="checkbox"/>
Annex 4 Monitoring plan				
Has the monitoring plan been included as annex 4 and does it allow for all the requirements listed under paragraph 25 of the Modalities and procedures for A/R project activities under the CDM?	2	A monitoring plan is included. See CARs in section E <u>Clarification Request 35.</u> Include information on monitoring plan as already outlined in the manual on "Quality Management System in Plantation & Forestations".	CR	<input checked="" type="checkbox"/>

Table 2: CDM responses to CAR and CR

Draft report clarifications and corrective action requests by validation team	Ref. to PDD	Summary of project owner response	Validation team conclusion
<p><u>Corrective Action Request No 1.</u></p> <ul style="list-style-type: none"> The boundary of some parcels is not included in the GIS file provided to the DOE. Include all boundary information in the GIS file. <i>(Ensure also consistency between the GIS database and the Excel file, currently the information on number of parcels included in the project area and overall area differ significantly.)</i> At time of field visit, different parcels belonging to one farmer had the same ID number. Provide a separate ID for each discrete parcel of the project area. Provide updated maps and Excel files accordingly. Merge the different updated GIS files to one single with a defined coordinate system and provide the file to DOE. 	A.4	<p><u>MTPL's Response:</u></p> <p>GIS coordinates of parcels not taken earlier has been recorded and database updated accordingly. Now the total no of parcels increased to 14944.</p> <p>Different parcels belonging to one farmer has been identified with separate IDs like two parcels of NNH004 has been identified as NNH004(a) & NNH004(b). Excel files updated.</p> <p>Accordingly updated excel file and maps are attached as annexure mentioned below:</p> <p>Annexure I: Revised ID & GIS coordinates Annexure II: Revised Updated current maps Annexure III: Revised SHAPE Files Annexure IV: Revised 1990 maps</p> <p><u>Audit Team:</u></p> <p>Updated digital boundary files (GIS shape files) have been submitted to the audit team.</p> <p>In addition a summary table in MS Excel is submitted which includes a unique ID for each parcel, as well as the area and a coordinate.</p> <p>The PDD has been updated and a summary is included in section A.4</p> <ul style="list-style-type: none"> The GIS file contains only 13.970 ha on 12.103 parcels, while in the PDD it is stated 14.944 parcels are included in the project on 17.418 ha. Please clarify and ensure consistency. <p>Several parcels in the GIS file are below the required minimum size for AR-CDM projects in India. Please ensure that all parcels meet the minimum requirements (regarding eligibility).</p> <p><u>MTPL's Response:</u></p>	<input checked="" type="checkbox"/>

		<p>The reason for inconsistency was the parcels where plantation failed. Those were included in excel file but excluded in GIS file while mapping by SACON. They have now been deleted from excel file. Few parcels found missing in GIS file have also been included.</p> <p>The geographically discrete parcels below the required minimum size of 0.05 ha (as per forest definition) are excluded from the project area. Now all the parcels meet the eligibility criteria.</p> <p>Both excel and GIS files in Annexures I, II, III & IV updated accordingly and consistency ensured. Now the total no of parcels is 12441 and the total area is 15125.33 ha.</p> <p><u>Audit Team:</u></p> <p>Ensure consistency between the GIS database and the PDD (i.e. the file Bsingpur contains 167 parcels and PDD 165, some of them do not include the ID but the area is included)</p> <p>Please submit one file (only one shape file) containing all the boundary information (the single files can easily be merged into one)</p> <p><u>MTPL's Response:</u></p> <p>Consistency ensured in GIS database, PDD and excel file. Now the total no of parcels are 12437 and area planted has slightly reduced (by 2 acres), totaling to 15124.53 ha. Revised Annexure I attached for records.</p> <p>All the boundary information merged in one single shape file and attached.</p> <p><u>Audit Team:</u></p> <p>The GIS files are still have different numbers for overall area (GIS files indicate an overall area of 15,141.2 ha and 12,437 parcels.</p> <p>There are still 12 parcels of less than 500 m²:</p> <p>VSA1208 VSK694b VSK558b VSP649c VSK082b VSK091c NNP247b</p>	
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		<p>VSP037b VSP331c VSK829b VSP331d VSK686c VSP872b</p> <p><u>MTPL's Response:</u> Consistency ensured in GIS file, PDD & CER calculation in respect of area and no of parcels. Also the above 13 parcels showing area less than 500 m² are actually more than 500 m², necessary correction done in GIS file. Now there are no parcels less than 500 m².</p> <p><u>Audit Team:</u> Updated GIS files were provided and found consistent with the PDD description and the CER calculations. Request closed.</p>	
<p><u>Clarification Request 1.</u> Provide information / reference documentation on GPS field measures and respective training of field staff.</p>	A.4	<p><u>MTPL's Response:</u> References on GPS field measures and training details of field staff incorporated by SACON in their revised "Report on Mapping & Monitoring of Eucalyptus plantation in three states of India using Satellite Remote Sensing & GIS techniques" attached as Annexure V</p> <p><u>Audit Team:</u> A report was prepared by the "Landscape Ecology Division" of the "Salim Ali Centre for Ornithology & Natural History Deccan Regional Station" on mapping and monitoring of the project area. Descriptions on GPS field measurements are included in this report. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 2.</u> Include information on ecosystem of the project area, which is not forest, but waste land.</p>	A.5.1	<p><u>MTPL's Response:</u> Please refer section A.5.1 of PDD page no. 13.</p> <p><u>Audit Team:</u> Please provide the ecological survey to the audit team and summarize its results as needed in the section A.5.1</p> <p><u>MTPL's Response:</u> Ecological survey report is attached as Annexure XII. Results of ecological survey have been summarized at page 16-17 of the PDD</p>	<input checked="" type="checkbox"/>



		(Ver05). <u>Audit Team:</u> The ecological Survey provided consists in an excel spreadsheet of the baseline information from the year 2001 to 2008. The results are presented in the PDD as requested. Request closed	
<u>Clarification Request 2.</u> Provide (scientific) reference for information on climate, hydrology, soils and ecosystem of the project area.	A.5.1	<u>MTPL's Response:</u> Please refer section A.5.1 of PDD page no. 13 to 16 <u>Audit Team:</u> References are provided in the PDD for the information regarding climate, hydrology and soils in the project area. Request closed.	<input checked="" type="checkbox"/>
<u>Clarification Request 3.</u> Provide information which endangered species occur in the project area. Clarify how the list of endangered species was determined	A.5.2	<u>MTPL's Response:</u> Please refer section A.5.2 of PDD in page no. 18 <u>Audit Team:</u> The list of endangered species is excluded from the PDD as it was referring to the state of Orissa in general and not specifically to the project area. Endangered species in the project area are not recorded but no endangered species are expected, as the land is degraded lands with little vegetation. Request closed	<input checked="" type="checkbox"/>
<u>Clarification Request 4.</u> Provide references (i.e. footnotes) for the above mentioned information on Eucalypt.	A.5.3	<u>MTPL's Response:</u> Please refer section A.5.2 of PDD in page no. 18 <u>Audit Team:</u> References / footnotes are not readable in the pdf, please provide footnotes <u>MTPL's Response:</u> References / footnotes provided in the PDD (Ver05) made readable by increasing font size. Scanned copy of foot note 13 "Know About Eucalyptus Tree" not available on internet attached as Appendix 14. <u>Audit Team:</u> References are now readable and were provided to the audit team as requested. The CR is closed.	<input checked="" type="checkbox"/>
<u>Corrective Action Request No 3.</u> Provide information on measures to minimize leakage in case leakage is identified, in case leakage is identified in the project (see section D2)	A.5.6	<u>MTPL's Response:</u> No significant leakage is anticipated from the project activity. Leakage due to the displacement of grazing and cultivation is unlike-	<input checked="" type="checkbox"/>

		<p>ly to occur as there are sufficient existing grazing lands under the control of the animal owners.</p> <p>Please refer section A.5.6 of PDD in page no. 20</p> <p><u>Audit Team:</u></p> <p>No leakage prevention measures are foreseen.</p> <p>Request closed.</p>	
<p><u>Corrective Action Request No 4.</u></p> <p>As the land owners (farmers) are not project participant, both the land title, and contractual agreement on carbon rights have to be monitored and verified at time of verification. Include monitoring of land ownership and contractual relations with land holders in the monitoring plan (section E).</p>	A.6	<p><u>MTPL's Response:</u></p> <p>Monitoring of land title document and carbon rights included in monitoring plan and PDD updated.</p> <p>Please refer section E.4.1 of PDD in page no. 71</p> <p><u>Audit Team:</u></p> <p>Land title and carbon rights are included as additional monitoring parameter. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 5.</u></p> <p>Provide information in the PDD that a) tripartite agreement between MTPL, the farmer and the bank, b) land title and c) carbon contract between the farmer and MTPL are available for each parcel.</p>	A.6	<p><u>MTPL's Response:</u></p> <p>Land Title, Tripartite Agreement and Carbon Contract is available in respect of each and every farmer, sample copy of each included in Appendices. Section A.6 updated accordingly, refer page nos 20-21</p> <p><u>Audit Team:</u></p> <p>Information on the land patta, land passbook, Tripartite agreement and carbon contract are included in the PDD.</p> <p>The documents were provided to the DOE during the onsite visit.</p> <p>The copies of the above mentioned documents are not readable, therefore please ensure that it is readable, or exclude them from the PDD as it is not required to include the documents as such in the PDD.</p> <p><u>MTPL's Response:</u></p> <p>The scanned copies of land patta, land passbook, Tripartite agreement and carbon contract not readable in earlier PDD have been excluded in PDD (Ver05). Readable copies attached separately as Appendix 2 & 3.</p> <p><u>Audit Team:</u></p> <p>The scanned copies were excluded from the PDD. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 6.</u></p> <ul style="list-style-type: none"> • Provide information on the land title ("pata"), sustaining eligibility, 	A.7	<p><u>MTPL's Response:</u></p> <p>Information on land title document sustaining eligibility provided in</p>	<input checked="" type="checkbox"/>

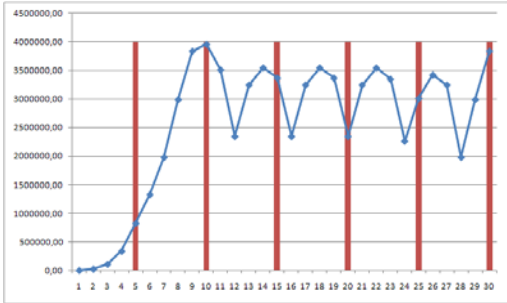


in the PDD.		<p>the PDD, refer page no. 23-25 in section A.7. Also copies of land title document "Patta" & "Land Pass Book" and "Certificates issued from Tehsildars" of Land revenue department of State Government confirming degraded status of land provided in the PDD for reference.</p> <p><u>Audit Team:</u> Information on land title are included in section A.7.</p> <p>The copies of the above mentioned documents are not readable, therefore please ensure that it is readable, or exclude them from the PDD as it is not required to include the documents as such in the PDD.</p> <p><u>MTPL's Response:</u> The scanned copies of land title document "Patta", Land Pass Book" and "Certificates issued from Tehsildars" of Land revenue department of State Government, not readable in earlier PDD, excluded in PDD (Ver05). Readable copies attached separately in Appendix 2 & 4.</p> <p><u>Audit Team:</u> The scanned copies were excluded from the PDD. The CAR is closed.</p>	
<p><u>Clarification Request 7.</u></p> <ul style="list-style-type: none"> • Provide the DOE with the final report on the remote sensing analysis and summarize the main finding in the PDD • Provide a list with all parcels identifying what the land cover on 1898 was. Currently some parcels in Vishakapatnam contain forest. Further several parcels in the analysis are classified as agriculture. Please clarify. 	A.7	<p>"Report on Mapping & Monitoring of Eucalyptus plantation in three states of India using Satellite Remote Sensing & GIS techniques (Rev. 1)" attached as Annexure V</p> <p>List of all parcels with land cover attached as Annexure I(a).</p> <p>The maps where few parcels were classified as agricultural or forest land were referred to SACON. They have rectified the same and included in the revised maps. Now there is no such variation.</p> <p><u>Audit Team:</u> The main findings of the remote sensing (satellite image) analysis are included in section A.7 of the PDD.</p> <p>None of the parcels contain forest in 1990 according to the analysis. A list with the results per parcel was submitted to the DOE as well as maps showing the land cover of all parcels in 1989/1990.</p> <ul style="list-style-type: none"> • Some parcels in the Excel file are less than the required minimum area of 0.05 ha. Please clarify if these are geographically discrete 	<input checked="" type="checkbox"/>



		<p>parcels and exclude them, if this is the case.</p> <p>The sum of the number of parcels of the project as calculated in the Excel file and PDD are not correct. Please update and ensure consistency also with the GIS files</p> <p><u>MTPL's Response:</u></p> <p>The geographically discrete parcels below the required minimum size of 0.05 ha (as per forest definition) are excluded from the project area.</p> <p>Inconsistency in number of parcels in the excel file, GIS file and PDD (Ver05) removed as explained in CAR 1 above.</p> <p><u>Audit Team:</u></p> <p>As clarified above, the parcels below the minimum area of 0.05 were removed. See CAR 1 above regarding the inconsistency between the GIS database and PDD. Request closed.</p>	
<p><u>Clarification Request 8.</u></p> <ul style="list-style-type: none"> • Provide DOE with the final report on PRA exercise and summarize the main finding in the PDD (instead of just referring to the document). • Provide DOE with Excel sheets used to analyse the results of the PRA 	A.7	<p>The size of PRA conducted by Maa Syamalay Voluntary Organization, considering adequate has been further increased. Earlier it included 600 respondents and now 1525 respondents have been covered.</p> <p>Main findings of PRA included at page nos 23-25 of the PDD.</p> <p>Final PRA report attached as Annexure XI</p> <p>Excel sheets used to analyse the results attached as Annexure XI(a)</p> <p><u>Audit Team:</u></p> <p>Information on PRA is included in the PDD and the final PRA report is provided to the audit team and has been reviewed as part of the validation process.</p> <p>Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 9.</u></p> <ul style="list-style-type: none"> • Provide information in the PDD on the assessment of the baseline vegetation, and provide background documents to DOE. 	A.7	<p><u>MTPL's Response:</u></p> <p>Information on baseline vegetation conducted by MTPL provided in the PDD, refer page no. 16. Vegetation survey report attached as Annexure XII.</p> <p><u>Audit Team:</u></p> <p>Information on the baseline study is included in the PDD. The survey results are submitted to the audit team as Excel files. The documents are consistent with further evidence regarding eligibility and thus the request can be closed.</p>	<input checked="" type="checkbox"/>



<p><u>Clarification Request 10.</u></p> <p>Include in PDD how to avoid of coincidence of peaks in carbon stocks and verification, according to CDM VVM 01 (paragraph 151).</p>	A.8	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 26</p> <p><u>Audit Team:</u> Provide an overview on the total cumulative net anthropogenic GHG removals by sink in relation to the planned verification events to sustain that there is no coincidence of coincidence of peaks in carbon stocks (e.g. graphically).</p> <p><u>MTPL's Response:</u> Non-coincidence of peaks in carbon stock and planned verification events presented graphically through line diagram in PDD (Ver05). Refer page 27</p> <p><u>Audit Team:</u> The PDD shows that there is no coincidence of peaks in carbon stocks and dates of verification. It was further cross-checked by the audit team (see pic below)</p>  <p>Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 5.</u></p> <p>Update the table according to the changes made in section A, C and D.</p>	A.9	<p>Table for estimation of net anthropogenic GHG removal updated, refer page no. 27</p> <p><u>Audit Team:</u> Table updated. Please indicate entire years (e.g. year 1,2,3,...) in the first column.</p> <p><u>MTPL's Response:</u> Years in the first column of the table changed as 1st, 2nd, 3rd</p> <p><u>Audit Team:</u> Entire years are indicated in the table of section A.9 as requested.</p>	<input checked="" type="checkbox"/>



		Request closed.	
<p><u>Clarification Request 11.</u></p> <p>Provide evidence that no loan was provided by other banks previously to 06 July 2001.</p>	B.1	<p><u>MTPL's Response:</u></p> <p>Earlier we considered the date on which 1st loan was sanctioned, as start date of the project activity i.e. 6th July, 2001.</p> <p>But commitment for expenditure on the project activity starts when tripartite agreement is signed.</p> <p>As clarified in EB's 41st meeting at para 67 "the start date shall be considered to be the date on which project participant has committed to expenditures related to implementation of project activity. This, for example, can be the date on which contracts have been signed for equipment or construction/operation services required for project activity."</p> <p>Accordingly the date on which first tripartite agreement was executed between the farmer, the company and the bank to undertake project activity has been considered as the start date. The first tripartite agreement was executed in respect of Shri Chaitan Kendu (KBG001), village Kenduguda with Indian Overseas Bank, Boipariguda, District Koraput on 25th June, 2001 which has been considered as start date of the project activity. Tripartite agreement of Chaitan Kendu alongwith the dates of first tripartite agreements in respect of all 31 bank areas planted in 2001-02 in provided in Table B.1 at page 31, evidencing that no tripartite agreement took place prior to 25th June, 2001.</p> <p><u>Audit Team:</u></p> <p>Evidence on starting date is provided to the audit team.</p> <p>The copies of the above mentioned documents are not readable, therefore please ensure that it is readable, or exclude them from the PDD as it is not required to include the documents as such in the PDD</p> <p><u>MTPL's Response:</u></p> <p>The scanned copies of tripartite agreement and carbon contract in respect of Chaitan Kendu not readable in earlier PDD have been excluded in the PDD (Ver05). Readable copies attached separately as Appendix 3.</p> <p><u>Audit Team:</u></p> <p>The scanned evidence on starting data was removed from the PDD</p>	<input checked="" type="checkbox"/>



		as requested and provided separately. Request closed	
<p><u>Clarification Request 12.</u></p> <p>For matters of transparency, include in C.1 a list of all used and necessary tools in the PDD, including the version number.</p>	C.1	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 30</p> <p><u>Audit Team:</u> As per methodology the "Tool for testing significance of GHG emissions in A/R CDM project activities" and the "Tool for estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of an A/R CDM project activity" shall be applied as well.</p> <p><u>MTPL's Response:</u> Clearing, burning and decay of the existing vegetation is not the common practice in the project region. During site visit 90 parcels visited randomly in 4 days, biomass burning was seen in one parcel only which was an extreme condition. That is the reason in the PDD "Tool for estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of an A/R CDM project activity" is not included.</p> <p><u>Audit Team:</u> All tools are listed in section C.1 as requested. The "Tool for estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of an A/R CDM project activity" does not need to be applied as the GHG emissions from removal of existing vegetation due to site preparation are insignificant (as per respective guidance (EB 50 , annex 21). In the PDD it is explained and discussed that the project area is degraded lands (see applicability criteria 1 of the methodology). Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 6.</u></p> <p>Apply the tool to identify degraded lands as required by the methodology. Describe the references used and provide</p>	C.2	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 30-33</p> <p><u>Audit Team:</u> The tool is applied appropriately. It was shown that the land is classified as degraded lands. Request closed</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 13.</u></p> <p>Provide information in the PDD why no natural encroachment of trees will occur in the project area. Provide respective evidence to the DOE.</p>	C.2	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 30-33</p> <p><u>Audit Team:</u> Encroachment of natural tree vegetation is not expected due to ero-</p>	<input checked="" type="checkbox"/>



		<p>sion (topography) population growth and illegal felling. Please clarify whether the project implementation leads to leakage if these activities (even though illegal) will be displaced.</p> <p><u>MTPL's Response:</u> Persons who were doing illegal felling gradually engaged in reforestation activity. As a matter of fact they did so to fulfill their minimum livelihood. But encouraged by the fellow farmers they also offered for reforestation in order to earn some income for their livelihood. Thus such illegal felling prevented automatically and there being no displacement of illegal felling.</p> <p><u>Audit Team:</u> As clarified above, illegal felling would not lead to leakage. No natural encroachment of trees will occur on the project area due to unfavorable weather conditions, soil conditions and anthropogenic impacts. Request closed</p>	
<p><u>Clarification Request 14.</u> Provide information in the PDD on carbon content of the soils in the entire project area. In particular provide evidence and reference, that the project activity is not implemented on "organic soils".</p>	C.2	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 30-33</p> <p><u>Audit Team:</u> Soil samples were taken on the project area. In addition reference to provincial soil reports are provided by the PP. This evidence combined with the onsite assessment of the audit team can confirm the compliance with the applicability criteria. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 7.</u> Include information on availability of fuelwood in the PDD as required by the methodology</p>	C.2	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 33</p> <p><u>Audit Team:</u> Pre-project amounts of fuel wood availability is assumed to be low. In the project scenario dead wood and branches can still be used for fuel wood. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 8.</u> Apply the tool "Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities" completely and provide respective evidence</p>	C.3	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 33</p> <p><u>Audit Team:</u> The procedure is applied in the PDD. Please include applicability criteria 2 (i) and 2(iii). In particular dis-</p>	<input checked="" type="checkbox"/>



		<p>king / ploughing for site preparation and maintenance of the plantation shall be discussed.</p> <p><u>MTPL's Response:</u></p> <p>Applicability criteria 2(i) and (iii) of the procedure elaborated in detail in the PDD (Ver05). Please refer page no 34.</p> <p><u>Audit Team:</u></p> <p>Applicability criteria 2 (i) and 2(iii) were included as requested. The "procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities" has been applied correctly. Request closed</p>	
<p><u>Corrective Action Request No 9.</u></p> <p>Include only emissions according to the latest version of the methodology.</p>	C.3	<p><u>MTPL's Response :</u></p> <p>PDD updated. Please refer page no. 33</p> <p><u>Audit Team:</u></p> <p>As per methodology CH₄ emissions from biomass burning shall be included.</p> <p><u>MTPL's Response :</u></p> <p>Biomass burning was never practiced for site preparation in the project activity and shall not be employed in future also. As because it is not a common practice in the area. Biomass burning observed at one of the sites during site visit was just accidental as explained in CR 12 above.</p> <p><u>Audit Team:</u></p> <p>As per methodology requirement, CH₄ emissions from biomass burning shall be indicated as "included" in the table for GHG emission sources.</p> <p><u>MTPL's Response :</u></p> <p>CH₄ emissions included in the table for GHG emission sources.</p> <p><u>Audit Team:</u></p> <p>GHG emissions included in the PDD are in line with the methodology. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 10.</u></p> <ul style="list-style-type: none"> Carry out stratification according to the methodology. (Based on a) key parameters to identify baseline carbon stock and carbon stock changes, and b) project planting/management plan). Provide respective reference for the stratification. 	C.4	<p><u>MTPL's Response :</u></p> <p>PDD updated. Please refer page no. 35-37</p> <p><u>Audit Team:</u></p> <p>Information on ex-ante stratification is provided in the PDD. As only</p>	<input checked="" type="checkbox"/>



<ul style="list-style-type: none"> • Provide the result of the stratification per parcel of the project area • Provide information on baseline vegetation and baseline carbon stock. 		<p>one tree species is used the project strata are based on the planting year (7 strata). Two baseline strata are identified, one without trees and one with few growing trees.</p> <ul style="list-style-type: none"> • Clarify how the different parcels were assigned to which <i>baseline</i> strata <p>Provide a list per parcels indicating the respective baseline strata. <u>MTPL's Response:</u> On the basis of vegetation recorded per parcel, the entire project area has been divided in two baseline strata:</p> <ol style="list-style-type: none"> 1. Baseline Strata I: Project land with trees and 2. Baseline Strata II: Project land without trees. <p>Baseline stratification discussed in detail further in the PDD (Ver05) at page 35-37. List of parcels assigned to each of the respective baseline strata provided in Annexure XIII. <u>Audit Team:</u> A table was included to the PDD indicating the total area and number of parcels assigned to each baseline strata. An excel spreadsheet (Annexure XIII) was provided indicating the list of parcels assigned. Request closed.</p>	
<p><u>Corrective Action Request No 11.</u></p> <p>As requested per methodology, use the "Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities".</p>	C.5	<p>Tool used and section C.5 left blank in the PDD. PDD updated. Please refer page no. 38 <u>Audit Team:</u> The combined tool is used (see comments below). Request closed.</p>	☑
<p><u>Corrective Action Request No 12.</u></p> <p>Provide the correct title of the tool and apply all required steps.</p>	C.6	<p>Title of the tool corrected and all steps required to identify baseline scenario and demonstrate additionality applied. Please refer page no. 38 <u>Audit Team:</u> Title and steps of the tool are followed. Request closed.</p>	☑
<p><u>Clarification Request 15.</u></p> <ul style="list-style-type: none"> • Provide a scanned copy of the board meeting to the DOE. • Provide a timeline for the CDM project, including first CDM consideration, project start, stakeholder involvement, baseline assessment etc. Clarify in the PDD which action on CDM project 	C.6	<p><u>MTPL's Response:</u> Copy of board meeting pasted in section C.6, page 44. Time line of the project activity provided in the PDD. Clarification on "why CDM documentation could not be started immediately after conceiving the project" provided in the PDD. Please</p>	☑



documentation development was taken in the first five years		<p>refer page no 41.</p> <p><u>Audit Team:</u> Board meeting is provided to DOE. The pictures in the PDD are however not readable, therefore please ensure that it is readable, or exclude them from the PDD as it is not required to include the documents as such in the PDD</p> <p><u>MTPL's Response:</u> Pictures deleted from PDD (Ver05). Scanned copy of minutes of board meeting dated 24.04.01, not readable in PDD, deleted and readable copy attached separately as Appendix 5.</p> <p><u>Audit Team:</u> Non readable images were removed from the PDD as requested. Provide timeline with events for continuous action to secure CDM status.</p> <p><u>MTPL's Response:</u> Timeline of continuous action to secure CDM status is included in the PDD. Respective references were provided to DOE.</p> <p><u>Audit Team:</u> Timeline is included in the PDD, references have been reviewed by audit team. Request is closed, as the starting date and ongoing action to secure CDM status is included in the PDD and confirmed by the audit team.</p>	
<p><u>Clarification Request 16.</u></p> <ul style="list-style-type: none"> • Provide more detailed description for the different land use scenario. • Scenario a) should be divided in two scenarios: one referring to reforestation by the framer on their own (without MTPL); and another scenario referring to the project activity without CDM component (but still with involvement of MTPL to secure raw material) • Scenario b) should refer explicitly to high productive agriculture, as there was marginal agriculture / grazing on the project area before project start • Scenario c) should include marginal framing/grazing, as this is the baseline conditions as observed during the field visits 	C.6	<p><u>MTPL's Response:</u> PDD updated. Please refer page no. 42-44</p> <p><u>Audit Team:</u> Different land use scenarios are described including agriculture, reforestation by farmers with and without MTPL and continuation of present land use. Request closed.</p>	<input checked="" type="checkbox"/>

<p><u>Clarification Request 17.</u></p> <p>Provide the references / documents mentioned in the PDD to the audit team (either scanned or the internet links), pointing to the respective page or paragraph.</p>	C.6	<p><u>MTPL's Response:</u></p> <p>Reference, internet links or scanned copy of all the documents referred in PDD, as far as possible, has been provided in the PDD and others are annexed as per the "List of Annexures".</p> <p><u>Audit Team:</u></p> <p>References regarding legal and regulatory requirements are provided to audit team (and mentioned in the PDD). Request closed.</p>	☑
<p><u>Clarification Request 18.</u></p> <p>Include barriers in case there are any prohibiting one of the land use scenarios identified in step 1.</p>	C.6	<p><u>MTPL's Response:</u></p> <p>Barrier analysis included in the PDD in detail. Please refer page no. 44-48</p> <p><u>Audit Team:</u></p> <p>Barriers are included in the PDD:</p> <p>As per tool, all barriers need to be sustained with evidence (references), which need to be submitted to the DOE. In particular submit evidence/documents for the following barriers:</p> <ul style="list-style-type: none"> • Technological barrier • Social conditions • Market and transport • investment barrier for MTPL need to be sustained as per sub-step 2 a of the tool have to be sustained and evidence presented to the DOE. In case the barrier cannot be sustained this land use option need to be discussed in a investment analysis (see next CAR) <p>If any of the above mentioned barrier cannot be sustained it should be excluded.</p> <p>A list with the land use alternatives and the barriers is included in the PDD.</p> <p><u>MTPL's Response:</u></p> <p>1. Technological barrier: Technological barrier faced by the farmers is evident from the PRA report by Maa Syamalay Voluntary Organization, NGO of the area. Information on technological barrier included in the report as Rev 02, provided as Annexure XI.</p> <p>2. Social conditions: BPL card of Raghunath Bissoi (NNH091) of Nandahandi bank area which is issued by State Government to the people living below poverty line is attached as Appendix 15 evidenc-</p>	☑



		<p>ing the social condition of the farmers.</p> <p>3. Market & transport: Letter from two transport agencies Orissa Bengal Carrier Ltd, dated 12.07.05 and Dilip Kumar Tripathy dated 18.02.02 showing their reluctance for carrying harvested timber from remote sites of farmers attached as Appendix 7 evidencing the transportation barrier faced by MTPL.</p> <p>Further letter from the farmers of Nandahandi and Padwa bank area of Koraput district dated 10.06.02 seeking assurance from MTPL to buy back timber and arranging transportation provided as Appendix 7 that evidence the barrier faced by the farmers.</p> <p>Barrier analysis further revised at page 44-48. Investment barrier for MTPL excluded from barrier analysis. This land use option is now discussed in investment analysis, STEP 3 at page 49 of PDD (Ver05).</p> <p><u>Audit Team:</u></p> <p>The Technological and Social Conditions barriers are described and sustained with evidence. The market and transport barrier specifies only the transport limitations.</p> <p>The investment barrier is discussed in CAR 13 below.</p> <p>Request closed.</p>	
<p><u>Corrective Action Request No 13.</u></p> <ul style="list-style-type: none"> • The costs for plantation establishment are not carried by MTPL, but by the farmer. Therefore it cannot be included in the investment analysis of MTPL. <p>Based on this provide the proof for additionality according to the AR-CDM additionality tool. Provide reference to input parameter</p> <ul style="list-style-type: none"> • Note that all of the land use scenarios leading to forest in the baseline must be addressed. 	C.6	<p>It is true that investment for reforestation is done by the farmers through bank loan. MTPL is not investing directly on plantation activity. But MTPL's role is like a facilitator in the project activity. Unless MTPL is involved the farmers would not be able to get loan and the project would not have come up at all. MTPL is committed to provide all supports like providing quality seedlings including its transportation, arranging bank loan, training & technical guidance, arranging manures & fertilizers, transport for harvested crop and over and above the entire monitoring activity is done by MTPL that requires infrastructure and huge investment on the part of MTPL.</p> <p>As a matter of fact there are two investments, one by farmers directly on plantation and the other by MTPL for supporting plantation, combined together establish the project activity with MTPL as facilitator. Therefore neither of the investments can be excluded from investment analysis. In absence of investment by either of MTPL or the farmers the project activity would not have happened at all.</p>	☑



	<p><u>Audit Team:</u></p> <p>As the costs for the establishment of the plantation are not carried by MTPL (as only Project Participant). Hence, these costs shall not be included in the calculation of the IRR. It shall be clearly identified in the PDD what are the costs for MTPL through the implementation of the project. As per onsite discussion MTPL solely has the costs for organization of the project and training/facilitation of the farmers.</p> <p>The investment options at the time of investment decisions must be analyzed, which are either to conduct the project as it is (reforestation of land of local farmers), or to acquire the raw material on the open market with increasing costs for transportation due to unavailability of raw material supply in the vicinity.</p> <p>As requested, all input parameters for the IRR calculation and benchmark shall be sustained with evidence:</p> <ul style="list-style-type: none"> • Costs for technical demonstration and training <p>A copy of a report is provided to the audit team, mentioning the benchmark of 12.5%. as the interest rate for the outstanding principal amount of 75.5 lakh.</p> <p>Provide documents supporting the required benchmark from the mentioned banks (SBI, SBH, SBT)</p> <p><u>MTPL's Response:</u></p> <p>Cost of establishment of plantation which is incurred by the farmers is excluded from investment analysis. The investment analysis now includes the various costs of MTPL in technical demonstration, consultation, training & development activities for implementation of the project. Salary & wages, conveyance of staff, vehicle expenses have been considered as MTPL expenses (As per sheet 1, 2 & 3 of IRR calculation evidenced by Appendix 8(a), (b) & (c).</p> <p>For return part, MTPL primarily does not get any return on its investments except for securing raw material that too after 5 years of investments. In case of non availability of raw material in nearby areas the company is compelled to purchase timber from distant places that involved uncertainty in transportation as well as the option is not cost effective. Thus, in monetary terms, the only return MTPL may get is the saving on landed cost of timber if the company procures raw material from nearby areas. (As per sheet 4 of IRR</p>	
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		<p>calculation evidenced by Appendix 8(d)).</p> <p>Fresh IRR calculation provided as Revision: 01 in Annexure VII, taking into account only MTPL's investments.</p> <p>The IRR excel sheet without CDM revenue indicated abnormal or absurd IRR since the net cash inflows are negative in most of the years which is why an error is depicted. The IRR with CDM revenue is computed as 17.80%.</p> <p>As per clause 2 of sanctioned scheme of BIFR (Appendix 9), interest payable to SBI, SBH, SBT was fixed at 2% below the documented rate which worked out to be 12.86% vide SBH letter attached as Appendix 9(a). Conservatively we have chosen the lowest interest rate of 12.5% as bench mark as per BIFR order.</p> <p>Evidence provided for all input parameters used in IRR computation. Step 3 at page 49-51 updated in PDD (Ver05).</p> <p><u>Audit Team:</u></p> <p>The investment analysis provided excluded the costs from the farmers. Evidence on the input parameters were provided including evidence on the benchmark of 12,5% applied in the calculations.</p> <p>A benchmark analysis as included in the PDD cannot be applied, as no IRR can be calculated. Please consider if an investment analysis is applicable potentially with another approach (such as simple cost). If a financial analysis is conducted all input parameters have to be listed in the PDD explicitly.</p> <p><u>MTPL's Response:</u></p> <p>Investment analysis based on Simple cost analysis along with all parameters included in the PDD.</p> <p><u>Audit Team:</u></p> <p>A simple cost analysis is applied. No income is expected from the CDM activity as the wood will be purchased at market price from the farmer. Hence only (transaction) costs are expected. Request closed.</p>	
<p><u>Corrective Action Request No 14.</u></p> <p>Apply step 4 of the tool "common practice analysis", as required by the applied methodology (see paragraph 32-34 of the tool).</p> <p>Define the reference area for the common practice analysis, and in</p>	C.6	<p>Common practice analysis included in PDD. Please refer page no. 51</p>	<input checked="" type="checkbox"/>
		<p><u>Audit Team:</u></p> <p>Two paper companies in the vicinity are conducting reforestation</p>	



<p>particular discuss other regional reforestation activities, e.g. from neighboring paper companies (e.g. in Jeypore) and framers conducting reforestations on their own, as well as initiatives by the forest service.</p>	<p>projects with farmers. One company (JK Paper) is also conducting this activity as a CDM project. The other company (Ballarpur Industries Ltd) is conducting the reforestation with farmers without additional finance from CDM.</p> <p>The statements made in the PDD need to be sustained with evidence that the reforestation activity from Ballarpur Industries Ltd:</p> <ul style="list-style-type: none"> • Involve only “few well off farmers” capable of investing • Conducting reforestation in accessible areas (rather than remote areas) <p>As per research on the internet, the activity from Ballarpur Industries Ltd is considered to be similar to the ones conducted by MTPL. As per additionality tool, “essential distinctions” should be “fundamental and verifiable changes in circumstances under which the proposed A/R CDM project activity is implemented”.</p> <p>Provide evidence on these “essential distinction”, if applicable.</p> <p><u>MTPL’s Response:</u></p> <p>“Report on “Similar Reforestation Activities in the area” by Maa Syamalay Voluntary Organisation, NGO who conducted PRA for the project, attached as Annexure XI(b) provides the evidence as under:</p> <ol style="list-style-type: none"> 1. Few well off farmers are cited at page 3 of the report. 2. Few reforested sites in accessible areas visited by PRA team are also cited at page 3 of the report. 3. Scanned copy of BILT’s tripartite agreement is attached as Appendix 11 wherein there is no requirement for land to be degraded. <p>Essential distinctions elaborated under step 4 at page 51-52 of PDD (Ver05).</p> <p><u>Audit Team:</u></p> <p>A report from the NGO Maa Syamalay Voluntary Organisation was provided as evidence on the distinctions between the proposed project activity and the reforestation activity done by similar companies. The main distinctions are the financing capacities of the farmers and the degraded lands where the project is implemented. Request closed.</p>	
<p><u>Clarification Request 19.</u></p>	<p>C.7</p>	<p>Vegetation survey at the start of the project activity was conducted</p>



<p>Provide information on the assessment of baseline carbon stock changes per strata based on a survey or scientific, regional specific literature or other relevant data sources. Provide calculations according to the methodology. Take into consideration that in some parcels baseline vegetation was present.</p>		<p>by MTPL. Vegetation survey report attached as Annexure XII. Baseline calculations as per methodology included in the PDD, refer page no 53 of PDD. Excel sheets attached as Annexure XIII.</p> <p><u>Audit Team:</u> The results of baseline GHG removals are presented in the PDD (section C.7 and Annex3) The calculation of the baseline net GHG removals must follow the steps as required per methodology (see section II 4 of meth). Provide respective information in the PDD (in particular the parameter required to calculate the baseline GHG removals.</p> <p><u>MTPL's Response:</u> Baseline calculation provided in PDD (Ver05) following the steps as per methodology and respective information provided, page 53-56. <u>Audit Team:</u> The steps indicated in the methodology were followed, The stock change method was applied for baseline estimations. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 20.</u> Clarify if other people were involved in the baseline study (see also request regarding the time line of the project in section C.6)</p>	C.8	<p>Baseline vegetation survey was conducted by MTPL along with the consultants of Vidula Consultancy Services. Baseline study was done by Birla Carbon Management Consulting Limited</p> <p><u>Audit Team:</u> Information on the baseline study are provided. Request closed</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 15.</u> Calculate the ex-ante actual net GHG removals according to the methodology (see section II 5). Provide the information required by the PDD guidelines for AR-CDM projects. In particular provide: - Info on how tree biomass was calculated (BEF or allometric method). - Provide all input parameters with respective sources/references as per section II.7 of the methodology - Provide the results of the sub steps of the calculations.</p>	D.1	<p>Revised calculation of ex-ante actual net GHG removal provided with all input parameters and their sources. PDD updated, refer PDD page no. 56-59. Excel spread sheet for CER calculation (Rev 1) attached as Annexure VIII. BEF method used for calculation of tree biomass. Actual DBH and tree height measured in sample plots (average) along with survival rate has been taken from Project Data Base. Project data base (average DBH, Height and Survival %) attached as Annexure XIV. Actual annual increment from project data base used for estimating</p>	<input checked="" type="checkbox"/>



<ul style="list-style-type: none"> - Provide the project database used for estimations of diameters and height. - Consider/ address mortality in growth estimates - Ensure to use actual annual increment not Mean Annual Increment for estimation of increment in the Excel file <p>Ensure to have appropriate parameters (Root-to-Shoot ratio, BEF and increment) for Eucalyptus coppice.</p>	<p>the emission reduction.</p> <p><u>Audit Team:</u></p> <p>The BEF method is used to calculate ex-ante actual net GHG removal by sink.</p> <p>The project database and updated calculation files are submitted to the audit team. The diameter and height values from the project database are used to predict the growth of the plantations.</p> <ul style="list-style-type: none"> • The hectare per strata is not in compliance with the information presented in the PDD (e.g. section A.4.1.3). Ensure consistency throughout the PDD and documents provided. • The baseline net GHG removals shall be considered as per methodology (see section II.4) • The methodology requires to assess $E_{\text{biomass loss}}$. Include respective information and calculations in the PDD by applying the respective tool. <p>Parameters used:</p> <ul style="list-style-type: none"> • Wood Density: see CR 23. • BEF: Provide evidence that no local species-specific data or national or regional data is available. The general IPCC value is not considered adequate considering that better data for Eucalyptus is available. The data hierarchy as required by the methodology shall be followed. • RS: Provide evidence that no local species-specific data or national or regional data is available. The general IPCC value is not considered adequate considering that better data for Eucalyptus is available. The data hierarchy as required by the methodology shall be followed. • Carbon Fraction: see CAR 16 • The naming of parameter shall follow precisely the methodology (and the layout as indicated in section II.8 of the methodology) <p><u>MTPL's Response:</u></p> <p>Consistency of area per strata ensured throughout the PDD in version 5 and related documents. Refer page no. 5-6 of the PDD (Ver05).</p>	
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		<p>Baseline net GHG removal provided as per methodology. Refer page 53-56 of PDD (Ver05) for baseline GHG removal.</p> <p>PDD updated. Please refer page 57 for $E_{\text{biomassLoss}}$</p> <p>Project specific data has been used for wood density as provided in "Project data base" attached as Annexure XIV. CER calculation revised and updated in PDD (Ver05).</p> <p>District Forest Officers of Nabarangpur and Koraput were requested to provide local/regional/national values of BEF, RS, and Carbon Fraction vide letter dated 28.05.10, attached as Appendix 12. But so far they have not been able to provide the same. On chasing, they informed verbally that those data are not available. Thus we had no option other than using IPCC values.</p> <p><u>Audit Team:</u></p> <p>The baseline net GHG removals were considered as requested and discounted from the calculations of carbon sequestration. Evidence on the availability of local species-specific data was provided demonstrating that IPCC values are required in the calculations.</p> <p>Biomass loss is not considered by the methodology any longer as monitoring parameter, thus it does not need to be considered as explicit parameter. Request closed.</p>	
<p><u>Clarification Request 21.</u></p> <p>Clarify if the volume equation used in the estimation is only referring to stem wood or to total above-ground biomass. Clarify if national or local values are available.</p>	D.1	<p><u>MTPL's Response:</u></p> <p>Volume equation for volume under bark is considered and taken from the book "Volume Equation for Forests of India, Nepal and Bhutan" by Forests Survey of India</p> <p><u>Audit Team:</u></p> <p>Please provide the reference as digital copy to the audit team.</p> <p><u>MTPL's Response:</u></p> <p>Scanned copy of relevant sections of the book "Volume Equation for Forests of India, Nepal and Bhutan" by Forests Survey of India provided as Appendix 13.</p> <p><u>Audit Team:</u></p> <p>The reference "Volume Equation for Forests of India" was provided to the audit team as requested. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 22.</u></p> <p>Include information on estimation of GHG emissions as per section</p>	D.1	<p>PDD updated. Please refer page no. 56</p> <p><u>Audit Team:</u></p>	<input checked="" type="checkbox"/>



II.5.2 of the methodology.		<p>During the onsite visit burning of biomass was observed in one parcel. Please clarify.</p> <p><u>MTPL's Response:</u> Burning of biomass is not a practice in the project area. Out of 90 parcels visited randomly in 4 days, biomass burning was seen in one parcel only which was certainly under compulsion. The farmers harvested the crop whole day. They were tired as well as hungry by end of day. The man who was to bring food for them did not reach. This particular site was in a very remote area. They had nothing to eat. Thus hunger compelled them to burn biomass to roast some meat that they arranged locally. This being an extreme situation, biomass burning may not be considered usual practice in the project area.</p> <p><u>Audit Team:</u> The project does not foresee to do any biomass burning. However burning can occur, therefore burning of biomass shall be included as a monitoring parameter to account for potential emissions at verifications.</p> <p><u>MTPL's Response:</u> "Biomass burning" included in monitoring plan.</p> <p><u>Audit Team:</u> Biomass burning is included as monitoring parameter in order to be able to calculate ex-post emissions from this potential source. Please include this parameter in section E.4.2</p> <p><u>MTPL's Response:</u> Monitoring parameter for "Biomass burning" shifted to section E.4.2</p> <p><u>Audit Team:</u> Monitoring parameter for biomass burning was included to section E.4.2 as requested. The CR is closed.</p>	
<p><u>Corrective Action Request No 16.</u> Provide information on the value for CF and the respective source (see also CAR in section D.1)</p>	D.1	<p><u>MTPL's Response:</u> Value of CF and its source provided in PDD. Please refer page no. 57 (table)</p> <p><u>Audit Team:</u> Provide evidence that no local species-specific data or national or regional data is available. The data hierarchy as required by the methodology shall be followed.</p>	<input checked="" type="checkbox"/>



		<p><u>MTPL's Response:</u> District Forest Officers of Nabarangpur and Koraput were requested to provide local/regional/national values of BEF, RS, and Carbon Fraction vide letter dated 28.05.10, attached as Appendix 12. But so far they have not been able to provide the same. On chasing, they informed verbally that those data are not available. Thus we had no option other than using IPCC values.</p> <p><u>Audit Team:</u> As clarified, local species-specific data was not available. Evidence was provided indicating the request for information to the District Forest Officers. Request closed.</p>	
<p><u>Clarification Request 23.</u> Clarify if national or local values are available for wood density.</p>	D.1	<p><u>MTPL's Response:</u> Value for wood density has been taken from IPCC GPG for LULUCF Table- 3A.1.9-2</p> <p><u>Audit Team:</u> Currently the value for Eucalyptus citriodora is used. The wood density for the species <i>E. tereticornis</i> shall be used. Use the priority for source of data as required by the methodology.</p> <p><u>MTPL's Response:</u> Project specific data has been used for wood density as provided in "Project data base" attached as Annexure XIV. CER calculation revised and updated in PDD (Ver05).</p> <p><u>Audit Team:</u> The value for wood density <i>E. tereticornis</i> was obtained from the database of MTPL. An excel spreadsheet (Project database) was provided as evidence. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Corrective Action Request No 17.</u> Apply the tool "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM activities. Address if there is any leakage from agriculture. (NB: leakage from agriculture is NOT foreseen by the methodology)</p>	D.2	<p><u>MTPL's Response:</u> Tool applied, PDD updated. Please refer page no. 59-62 and excel spread sheet attached as Annexure XV.</p> <p><u>Audit Team:</u> As per PRA 38.6% state that "grazing is practiced in this area". The stepwise approach from the tool, including the parameters applied and to be monitored shall be included in the PDD.</p> <p><u>MTPL's Response:</u> Stepwise approach from the tool followed and included in PDD, refer</p>	<input checked="" type="checkbox"/>

		<p>page no. 59-62 of PDD (ver05).</p> <p><u>Audit Team:</u></p> <p>The excel spreadsheet "Leakage calculation" provided as evidence follows the stepwise approach from the tool, the summary of the results is presented in the PDD.</p> <p>The values of the parameters and results of the calculation shall be included in the PDD.</p> <p><i>Note: the following 5 parcels would result in leakage, please re-check data</i></p> <p>Nadimivalasa VSA137 Kenduguda KBG090 Ganjaibahal MMG034 RUPABEDA KRG199 Churukumadata VSA265</p> <p><u>MTPL's Response:</u></p> <p>Values of parameters and results of calculation included in the PDD. Leakage on account of above 5 parcels is not contemplated as sufficient AGL has been confirmed from the animal owners/farmers as under</p> <p>VSA 137 – 0.7 acre is actually 3.7 acres against required area 2.95 KBG090 – 0.50 acre is actually 3.50 against the required area 1.99 MMG034 – 4.00 is actually 4.05 which is the required area KRG199 - 4.50 acre is actually 4.55 against required area 4.52. VSA265 – 4.50 acre is actually 4.52 which is the required area. Annexure XV has been corrected and revised as Rev01, attached. The corrected results included in PDD.</p> <p><u>Audit Team:</u></p> <p>The few parcels (5 out of 12437) were re-checked by the PP. The audit team considers these as typos that occurred during data assessment.</p> <p>No leakage is expected to occur as sufficient alternative grazing area is available under control of the farmers. Request closed.</p>	
<p><u>Corrective Action Request No 18.</u></p> <p>Include the parameters to monitor forest establishment in the table</p>	E.1	<p><u>MTPL's Response:</u></p> <p>Parameters to monitor forest establishment included in the Table of</p>	<input checked="" type="checkbox"/>



as required by the PDD guidelines.		PDD. Please refer page no. 64 <u>Audit Team:</u> Parameters on forest establishment are included in the PDD. Request closed.	
<u>Clarification Request 24.</u> <ul style="list-style-type: none"> Clarify how many strata are defined. Strata should be homogeneous units and help increasing measuring precision. The step-wise approach in the PDD is not required by the methodology. Include in the PDD the conditions for ex-post strata update. 	E.2	<u>MTPL's Response:</u> PDD updated. Please refer page no. 66-69 <u>Audit Team:</u> 7 strata are identified in the PDD. Please clarify the consistency with the two baseline strata defined in section C.4. Strata update are included in the PDD (monitoring of strata) as per meth. <u>MTPL's Response:</u> Consistency ensured in the baseline strata defined in section C.4 at page 37 and project strata in section E.2 at page 67 of PDD (Ver05) <u>Audit Team:</u> Consistency with the two baseline strata was clarified as requested. Request closed.	<input checked="" type="checkbox"/>
<u>Clarification Request 25.</u> <ul style="list-style-type: none"> Provide the sheet to calculate the number of sample plots to the audit team. Clarify why 30% was used as input parameter for variation Ensure to locate the sample plots randomly with the parcel, to avoid any bias. Ensure to calculate the number of sample plots per strata as defined in the first part of section E.2. 	E.2	<u>MTPL's Response:</u> Excel spread sheets to calculate no of sample plots attached as Annexure XVI. To avoid any bias in sampling, the location of sample plots has been systematically determined. The possible 9 locations are placed in cyclic order in sample plot list, each plot getting one location without any bias as included in Annexure X. Please refer page 66-69 of PDD. <u>Audit Team:</u> Calculations of numbers of sample plots have been conducted as per the required tool. Request closed.	<input checked="" type="checkbox"/>
<u>Corrective Action Request No 19.</u> Ensure consistency with the requirements and monitoring parameter of the applied methodology.	E.4	<u>MTPL's Response:</u> PDD updated. Please refer page no. 70-72. <u>Audit Team:</u> All relevant parameters are included as required per methodology.	<input checked="" type="checkbox"/>



		Request closed.	
<p><u>Clarification Request 26.</u></p> <p>If required, include parameters on monitoring of leakage as defined in the tool to estimate leakage (see section D.2)</p>	E.5	<p><u>MTPL's Response:</u></p> <p>As per the approved methodology applied and EB42, there is only one potential source of leakages in the proposed A/R CDM project activity. This is displacement of grazing. However, as elaborated in Section D.2 in PDD, the leakage from displacement of grazing is nil. A constant monitoring will be done to determine if any possible new sources of leakage arise, since there is none at the present time. However will be monitored the grazing.</p> <p><u>Audit Team:</u></p> <p>As required by the leakage tool, the respective parameters shall be included in the monitoring plan.</p> <p><u>MTPL's Response:</u></p> <p>Respective parameters included in the monitoring plan at page 72 of PDD (Ver05).</p> <p><u>Audit Team:</u></p> <p>The only parameters included are AGL and number of animals. The parameters from the leakage tool shall be included in the monitoring plan ($H_{existing}$ and $H_{g,k,t}$ as per tool page 20)</p> <p><u>MTPL's Response:</u></p> <p>Included in the monitoring plan.</p> <p><u>Audit Team:</u></p> <p>Please include these parameters in section E.5.1</p> <p><u>MTPL's Response:</u></p> <p>The above parameters shifted to section E.5.1</p> <p><u>Audit Team:</u></p> <p>The corresponding parameters for leakage were included as requested. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 27.</u></p> <p>Update QA/QC procedures, only if not included in E.1.2</p>	E.6	<p><u>MTPL's Response:</u></p> <p>PDD updated. Please refer page no. 73</p> <p><u>Audit Team:</u></p> <p>Information on QA/QC procedures included in the PDD. Request closed.</p>	<input checked="" type="checkbox"/>

<p><u>Clarification Request 28.</u> Provide information on the management structure for monitoring in the PDD.</p>	E.7	<p><u>MTPL's Response:</u> Management structure for monitoring the project activity provided in PDD. Please refer page no. 72-76 <u>Audit Team:</u> Information on operation and management structure for monitoring is included in the PDD: Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 29.</u> Identify who is applying/implementing the monitoring plan</p>	E.8	<p><u>MTPL's Response:</u> Please refer page no. 76 <u>Audit Team:</u> As per PDD guidelines "Please provide contact information and indicate if the person/entity is also a project participant listed in Annex 1 of this document." <u>MTPL's Response:</u> Contact information of the entity provided in the PDD (Ver05) at page 76 and the entity is not a project participant. <u>Audit Team:</u> Contact information of the person applying the monitoring plan was included to the PDD as requested. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 30.</u></p> <ul style="list-style-type: none"> • Provide reference to the Indian EIA notification • Provide reference to impacts concerning soil, water and biodiversity, as stated in the PDD. • Provide the internal environmental impact assessment to the audit team 	F.1	<p><u>MTPL's Response:</u> Please refer page no. 77 (foot note) Please refer page no. 77 <u>Audit Team:</u> Reference to Indian EIA notification is provided as footnote in the PDD. As requested, please provide the internal environmental impact assessment to the audit team <u>MTPL's Response:</u> Report on EIA conducted internally attached as Annexure VI. Soil test reports referred in the EIA are attached as Appendix 6(a) & 6(b) <u>Audit Team:</u> A brief document containing the internal environmental impact as requested. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 31.</u></p>	F.2	<p><u>MTPL's Response:</u></p>	



Discuss any possible negative effects of Eucalyptus plantations.		<p>No significant negative impacts have been identified.</p> <p><u>Audit Team:</u></p> <p>Potential negative impacts are discussed in the PDD in section F.1. Considering the small size of the parcels of the plantations, no negative environmental impacts are expected. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 32.</u></p> <ul style="list-style-type: none"> • Provide an analysis on socio-economic impacts, as required by the PDD guidelines. Include if applicable information on local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuel wood and other forest products • Issues regarding contracts on carbon rights should be discussed in section A.6 	G.1	<p><u>MTPL's Response:</u></p> <p>Socio-economic impacts of the project activity discussed in the PDD. Please refer page nos 79-81.</p> <p>Issues regarding carbon rights placed in section A.6. Please refer page no. 19-21 of PDD.</p> <p><u>Audit Team:</u></p> <p>As per PDD guidance "This analysis should include, where applicable, information on, inter alia, local communities, indigenous peoples, land tenure, local employment, food production, cultural and religious sites and access to fuelwood and other forest products".</p> <p><u>MTPL's Response:</u></p> <p>Analysis of Socio economic impacts discussed at page 79-81 of PDD (Ver05) that includes information on local communities, indigenous people, land tenure, local employment, food production, access to fuel wood and other forest products.</p> <p><u>Audit Team:</u></p> <p>Further information on local communities was included to the PDD as requested. Request closed.</p>	<input checked="" type="checkbox"/>
<p><u>Clarification Request 33.</u></p> <ul style="list-style-type: none"> • The process of how stakeholder comments have been invited must be addressed in further detail the PDD. Give information on number of people having attended the meeting and where they came from. • Provide summary of the comments received from the stakeholder consultation before project start (section H.2) • Explain how the comments were integrated (section H.3) • Provide information on stakeholder meetings before project implementation and include this information in the PDD. Provide respective evidence to the audit team. 	H.1	<p><u>MTPL's Response:</u></p> <p>The stakeholders comments were invited through meeting as well as PRA exercise. At the start of the project activity stakeholders' consultation meetings were conducted locally for each bank area. Altogether 45 such meetings were conducted ensuring participation of 1080 people. 13 meetings in Nabarangpur, 28 in Koraput from December, 2000 to March, 2001 and 4 meetings in Srikakulam from January to March 2004. All the details of the meetings, how they were conducted, no of participants, date, villages they come from, who conducted the meeting, comments received have been addressed in the PDD, refer page nos 81-84 of PDD and Table H.1 in</p>	<input checked="" type="checkbox"/>



		<p>PDD.</p> <p>All the participants invariably opined that the plantation scheme brought by MTPL will be beneficial for them. They will get an opportunity to utilise the degraded land which was otherwise lying barren. This was also confirmed during PRA exercise.</p> <p>Minutes of meeting conducted at large scale on 11.06.07 along with press advertisement in local language (Oriya) and its English translation attached as Annexure XVII.</p> <p><u>Audit Team:</u></p> <p>A list with 45 meetings held is included in the PDD. Notification was published in local newspaper.</p> <p>Provide respective evidence as digital (e.g. scanned) copies to the audit team.</p> <p>A brief general summary of the comments was provided, no negative comments were received.</p> <p>Provide the CD with the live coverage to the audit team</p> <p><u>MTPL's Response:</u></p> <p>Scanned copies of the proceedings of one each meeting conducted in Nabarangpur (15.01.01), Koraput (20.12.00), Malkangiri (24.12.00) and in Andhra Pradesh (05.01.04) attached in Annexure XVII. Proceedings are in local languages - Oriya and Telugu, hence English translation of one Nabarangpur meeting on 15.01.01 also provided.</p> <p>CD of live coverage of 11.06.07 meeting mailed separately.</p> <p><u>Audit Team:</u></p> <p>Scanned copies of the notification in the newspaper and minutes of meetings with stakeholders were provided in digital jointly with translated copies as requested. Request closed.</p>	
<p><u>Clarification Request 34.</u></p> <p>Provide information on the baseline study.</p>	Annex 3	<p><u>MTPL's Response:</u></p> <p>Please refer page no. 89-92</p> <p><u>Audit Team:</u></p> <p>Information on the baseline study is included in Annex 3. See further requests in sections C.4 and C.7 in this table. Request closed.</p>	<input checked="" type="checkbox"/>



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<p><u>Clarification Request 35.</u> Include information on monitoring plan as already outlined in the manual on “Quality Management System in Plantation & Forestations”.</p>	<p>Annex 4</p>	<p><u>MTPL’s Response:</u> Please refer page no. 93-95 <u>Audit Team:</u> Brief information on Monitoring plan is repeated from section E of the PDD. Request closed.</p>	<p><input checked="" type="checkbox"/></p>
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Annex 2: Information Reference List

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
1.	Tüv-Süd	On-site interviews at the offices and the project site Interviewed persons:	20/10/2009	
		P S Prasad		
		Dy General Manager (QA & Projects), Mangalam Timber Products Ltd		
		Tulika Biswas		
		Senior Analyst, CDM, Birla Carbon Management Consulting		
		Dipak Nandy		
		Asst General Manager (Farm Forestry & Procurement), Mangalam Timber Products Ltd		
		Suresh Kr Kushwaha		
		Manager (Plantation), Mangalam Timber Products Ltd		
		Pawan Kumar		
		Asst Manager (Plantation), Mangalam Timber Products Ltd		
		A D Naidu		
		Field Officer (Forestry), Mangalam Timber Products Ltd		
		T Santara		
		Officer (Data Management), Mangalam Timber Products Ltd		
		Dr Chiranjibi Patnaik		
		GIS Scientist, Salim Ali Centre for Ornithology & Natural History (SACON)		
		Purno Chandra Mahapatro		
		Secretary, Maa Syamalay Voluntary Organisation		
2.	MTPL	PDD: "Reforestation of degraded land by MTPL in India".		
3.	MTPL	MTPL Board resolution	24/04/2001	Early CDM consideration
4.	MTPL	MTPL Board resolution	19/04/2006	
5.	Board For Industrial and Financial Reconstruction	Letter indicating the financial health of MTPL	21/12/2000	
6.	MTPL	Annual reports 1995/96 to 2007/08	20/10/2009	
7.	Ministry of En-	Letter of Approval from India	17/02/2010	



Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
	Environment and Forests			
8.	MTPL	CER calculation, Excel file : "Annexure VIII, cer_mtpl.xls"	10/12/2010	
9.	MTPL	Project database, including planting year and coordinates, Excel file "Annexure I-Unique Identity with GIS coord.xls"	07/08/2010	
10.	MTPL	Maps of project area (7 pdf files, one document containing several maps)	16/08/2010	
11.	MTPL	GIS files of the project area	14/03/2011	
12.	MTPL	Satellite image analysis for the project area		
13.	MTPL	"Annex V-Report on GPS Mapping.pdf"		
14.	MTPL	Annexure X, List of Permanent Sample Plots for Project Monitoring	06/04/2010	
15.	Nitrofix Laboratories	Annexure VI - Soil Report.pdf	20/02/09	
16.	MAA Syamalay Voluntary Organization	Annexure XI - PRA Report.pdf	03/2009	
17.	Forest Survey of India	Eucalyptus hybrid information , Volume equations for forests in India	1996	
18.	Forest Survey of India	Silviculture of India, Book	1996	
19.	MTPL	Opening presentation 1 of MTPL (Email)	20/10/2009	
20.	MTPL	Presentation on nurseries MTPL (Email)	20/10/2009	
21.	MTPL	Plantation and nursery technologies		
22.	Farmer, MTPL, Bank	Tripartite agreement between the farmer, the bank and MTPL		
23.	Farmer	Copy of Land title ("patta") from the farmer reviewed onsite	20/10/2009	Tenure / Carbon rights
24.	Farmer, MTPL	Carbon contract		Tenure / Carbon rights

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
25.	Farmer, MTPL, Bank	First contract from tripartite agreement	25/06/2001	
26.	MAA Syamalay Voluntary Organization	Excel sheets from Participatory Rural Appraisal Exercise	03/2009	
27.		Office of the Soil chemist, soil testing laboratory visited during onsite	20/10/2009	
28.		Soil test report for N, P, K and Ph		
29.	MTPL	Opening presentation 2 from MTPL	20/10/2009	
30.	MTPL	Parcel database Excel sheet (annex I)	20/10/2009	
31.	MTPL	Report on remote sensing analysis	26/08/2009	Eligibility
32.	MTPL	Training for GPS measuring		
33.		GIS publication on mapping in Orissa		
34.	MTPL	Cost for plantation establishment	20/10/2009	
35.	MTPL	Information on per hectare plantings	20/10/2009	
36.		Minimum wages act for 2001		
37.	MTPL	Plantation database - soft and hardcopy	20/10/2009	
38.	Ministry on Environment and forests, India	Environmental Impact Assessment. Impact Assessment Division, Ministry of Environment and Forests, Government of India http://envfor.nic.in/divisions/iass/eia/Cover.htm	01/ 2001	Environmental impact assessment
39.	MTPL	Internal Environmental Impact Assessment		
40.	MTPL	Excel sheet for monitoring		
41.	MTPL	Calculation sheet for sample plots (detailed calculations)	04/08/2010	
42.	MTPL	Stakeholder meeting summary (2007)	21/06/2007	
43.	MTPL	References for stakeholder meeting	21/06/2007	
44.	MTPL	Signatures of participants of stakeholder meeting (from all three meetings)	21/06/2007	

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
45.	MTPL	Video of stakeholder meeting 2007	20/10/2009	
46.	MTPL	Document when MTPL contacted financing bank branch, General Manager Udkal Gramye Bank (Orissa) (head offices – Bolangir, Orissa), Chattisgar (Bastar) and AP: State Bank of India		
47.	NABaRD	Background document on (NABaRD, national agricultural Bank and Rural development) – general policy maker (refinancing bank). Rural banks can follow-up. Rural banks can apply the scheme (subsidiary of state bank – not private banks)		
48.	Tamil Nadu Forest Dpt.	Know about Eucalyptus tree		
49.	National Remote Sensing Agency	Wastelands Atlas of India. Dept of Space, Government of India. Ministry of Rural development Department of Land Resources	2005	Applicability
50.	TÜV SÜD	Field sheets including coordinates obtained from GPS point documenting the assessment of the audit team during the onsite visits	20/10/2009	
51.	MTPL	Ground based vegetation survey (baseline study)		Baseline
52.	IPCC	Good Practice Guidance on Land Use, Land Use Change and Forestry	2003	
53.	MTPL	Leakage calculation Excel spreadsheet with data used for assessment of leakage	06/08/2010	Leakage
54.	Atibudhi, H.N.,	Institutional Credit and Factors Influencing Its Flow to Agriculture in Orissa, Indian Journal of Agricultural Economics	1/07/2005	Additionality
55.	Sarap Kailas	Factors affecting small farmers' access to institutional credit in Rural Orissa, India. Development and Change (SAGE, London, Newbury Park and New Delhi), Vol. 21. (1990). 281-307	1990	Additionality
56.	Panda, R.K	Investment Behaviour of Farm Households and Flow of Institutional Credit - A Study in Orissa, Indian Journal of Agricultural Economics, July 1, 2005.	July 2005	Additionality
57.	Mishra, R.K.,	Impact of Institutional Finance on Farm Income and Productivity: A Case Study of Orissa, Indian Journal of Agricultural Economics	July 2005	Additionality
58.	Ministry on Environment and forests, India	The National Forest Policy of the Government of India.	07/12/1988	Additionality

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
59.	Orissa Bengal Carrier Ltd.	Letter from transportation company refusing to provide transportation services from the farmers involved in the project due to the road conditions and the remote location of the parcels.	12/07/2005	Additionality
60.	MTPL	Ecological Survey Report	04/08/2010	Baseline/Additionality
61.	MAA Syamalay Voluntary Organization	Report on similar Reforestation activities in the area		Additionality-Common Practice
62.	UNFCCC	AR CDM project undergoing validation in the same region of the proposed project http://cdm.unfccc.int/Projects/Validation/DB/18OZONIVT66PIKEQ6APYNE8RHCUCMX/view.html	28 Mar 09 - 11 May 09	Common practice
63.	MTPL	Letters from MTPL requiring consultancy services for the development of a forestry CDM project	11/04/2002	Real and continuing actions for CDM status
64.	Vidula Consultancy Services	Letters between MTPL and Vidula Consultancy Services offering advisory services for CDM project	19/08/2002	Real and continuing actions for CDM status
65.	Vidula Consultancy Services	Letter indicating the findings of the on-site visit by the consultants	24/09/2003	Real and continuing actions for CDM status
66.	Vidula Consultancy Services	letter submitted by Vidula Consultancy Services to MTPL advising to wait until a methodology for forestry projects under the CDM is available	12/07/2004	Real and continuing actions for CDM status
67.	Vidula Consultancy Services	Letter submitted by Vidula Consultancy Services to MTPL informing that a methodology for forestry projects under the CDM is available	20/12/2005	Real and continuing actions for CDM status
68.	Ernst & Young	Letter with offer proposal from Ernst & Young for consultancy services for developing a CDM project	24/01/2006	Real and continuing actions for CDM status
69.	MTPL	The PCN and first PDD submitted to the corresponding DNA of India	07/03/2007	Real and continuing actions for CDM status
70.	MTPL	Letter requesting the Host Country Approval to the corresponding DNA of India.	07/03/2007	Real and continuing actions for CDM status



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Ref. No.	Author/Editor/Issuer	Title, Type of Document	Date	Additional Information
71.	Ministry on Environment and forests, India	Letter from the DNA of India requesting the presentation of the project for approval	25/04/2007	Real and continuing actions for CDM status
72.	Ministry on Environment and forests, India	Letter from the DNA of India requesting clarifications before the submission of the Host Country Approval	29/05/2007	Real and continuing actions for CDM status
73.	UNFCCC	GSP comments: http://cdm.unfccc.int/Projects/Validation/DB/QT1C6ZQJ4RJK28UFAI503NEOA8A2UY/view.html	07/02/2009	
74.	TÜV SÜD	Quotation for Validation of a Climate Change Project	12/12/2008	

Annex 3: Appointment Certificates



Industrie Service

CERTIFICATE OF APPOINTMENT

Mr Hetsch, Sebastian, 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		

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

Qualification in technical areas	
Technical Area	Date
14.1_Forestry	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-0006/00.

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



Industrie Service

CERTIFICATE OF APPOINTMENT

Mr Chang Olivas, Juan, 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	29.03.11			
Financial Expertise					
Date					

Qualification in technical areas	
Technical Area	Date
14.1_Forestry	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-0030/00.

Date	Signature
29.03.11	



Industrie Service

CERTIFICATE OF APPOINTMENT

Mr Vijayanand, V, 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	12.04.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		12.04.11	12.04.11			

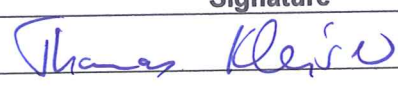
Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	12.04.11				
Financial Expertise					
Date	12.04.11				

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	12.04.11

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-0042/00.

Date	Signature
12.04.11	



Industrie Service

CERTIFICATE OF APPOINTMENT

Ms Wagner, Karin, 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	

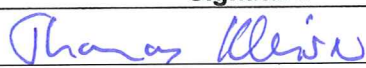
Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	23.03.11				
Financial Expertise					
Date	23.03.11				

Qualification in technical areas	
Technical Area	Date
1.2_Energy generation from renewable energy source	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-0015/00.

Date	Signature
23.03.11	



Industrie Service

CERTIFICATE OF APPOINTMENT

Mr. Opitz, Martin, 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	20.05.11					

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date						20.05.11

Other qualification					
Country Expertise					
Region	1	2	3	4	5
Date	20.05.11				
Financial Expertise					
Date					

Qualification in technical areas	
Technical Area	Date
14.1_Forestry	20.05.11

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-0059/00.

Date	Signature
20.05.11	<i>Thomas Kleiser</i>