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# Validation Report

**The World Bank**

## VALIDATION OF THE CDM-PROJECT: IMPROVING RURAL LIVELIHOODS THROUGH CAR- BON SEQUESTRATION BY ADOPTING ENVIRONMENT FRIENDLY TECHNOLOGY BASED AGROFORESTRY PRACTICES

REPORT NO. 845794

**21 February 2011**

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

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<b>Subject:</b> Validation of a CDM Project	
<b>Accredited TÜV SÜD Unit:</b> TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich, Germany	<b>TÜV SÜD Contract Partner:</b> TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 80686 Munich, Germany
<b>Project Participants:</b> <ul style="list-style-type: none"> <li>VEDA Climate Change Solutions Ltd. (VCCSL)</li> <li>JK Paper Ltd (JKPL)</li> <li>International Bank for Reconstruction and Development as a trustee for BioCarbon Fund</li> <li>Canada</li> </ul>	<b>Project Site(s):</b> The project area consists of several discrete parcels located in the Provinces of Andhra Pradesh and Orissa, 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).
<b>Project Title:</b> Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices	
<b>Applied Methodology / Version:</b> AR-AM0004/ Version 03	<b>Scope:</b> 14 <b>Technical Area(s):</b> 14.1 and 14.3
<b>First PDD Version:</b> Date of issuance: 11 February 2009 Version No.: 01 Starting Date of GSP 28 March 2009	<b>Final PDD version:</b> Date of issuance: 03 Feb 2011 Version No.: 06
<b>Estimated GHG removal:</b> 146,888 t CO <sub>2</sub> -e after the 30 year crediting period (=4,896 t CO <sub>2</sub> -e average annual GHG removal)	
<b>Assessment Team Leader:</b> Sebastian Hetsch  <b>Assessment Team Members:</b> Juan Chang Martin Schröder	<b>Technical Reviewer</b> Robert Scharpenberg  <b>Certification Body responsible:</b> Thomas Kleiser
<b>Summary of the Validation Opinion:</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> 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 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.</li> <li><input type="checkbox"/> 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.</li> </ul>	

## Abbreviations

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

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## INTRODUCTION

### 1.1 Objective

The validation objective is an independent assessment by a Third Party, a Designated Operational Entity (DOE) of a proposed project activity against all defined criteria set forth 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 whether or not a project activity is valid and should 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 activity covered by this validation report was submitted under the following project title: "Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices".

### 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 applies standard auditing techniques to assess the correctness of the information provided by the project participants. The assessment is based on the “Clean Development Mechanism Validation and Verification Manual” version 1.02. The work starts with the appointment of the team covering the technical scope(s), technical area(s) and relevant host country experience for evaluating the CDM project activity. 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 finally 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 submission to the CDM-EB.

In order to ensure transparency, assumptions are clear and explicitly stated; the background material is clearly referenced. TÜV SÜD developed methodology-specific checklists and protocol customised for the project. The protocol shows, in a transparent manner, criteria (requirements), the discussion of 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	PDD in GSP	Final PDD
<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 <b>Request</b> 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 <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>Clarification Request (CR)</b> is used when the validation team identified a need for further clarification. <b>Forward Action Request (FAR)</b> 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: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	Ref. to table 1	Summary of project owner response	Validation team conclusion
<i>If the conclusions from table 1 are a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue is explained.</i>	<i>The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the discussion on and revision to project documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final PDD".</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 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 five qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Validator (Validator)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)
- Technical Reviewer (TR)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.



#### Assessment Team:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect	Host country experience
Sebastian Hetsch	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Juan Chang	Validator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Martin Schröder	Validator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The certificates of appointment of the respective team members are included in annex III of this report.

#### Technical Reviewer:

- Robert Scharpenberg (see appointment certificate in Annex III)

## 2.2 Review of Documents

The PDD for the GSP was submitted by the PP to the DOE in March 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 01-08 April 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
C.A Rao	Managing Director VEDA Climate Change Solutions Ltd.
Lak Tewari	Director VEDA Climate Solutions Ltd
Prabir De	Co-ordinator Projects & Training Science
MC Goel	Executive Vice president JK Paper Ltd.
M Satyanavayana	Honorary advisor VEDA Climate Change Solutions Ltd.
M. Surya	Honorary advisor VEDA Climate Change Solutions Ltd.
Shanmukharao	VCCSL Project Manager
AB Brahmanadu	JKPL Manager
DK Sahoe	JKPL Manager
Ranjan	World Bank
Suha Lyes	World Bank



Sunil Bhargava	JKPL Manager
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In addition 60 land owners of parcels belonging to the project area were interviewed.

## 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 February 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. 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 participants are (i) VEDA Climate Change Solutions Ltd. (VCCSL), (ii) JK Paper Ltd (JKPL), (iii) the International Bank for Reconstruction and Development as Trustee of the BioCarbon Fund, and (iv) Canada as Party to the Kyoto Protocol. The host Party India and further participant party Canada meet the requirements to participate in the CDM.

The DNA of India issued a LoA (IRL 3) on 15 July 2009 authorizing VEDA Climate Change Solutions Ltd. (VCCSL) and JK Paper Ltd (JKPL) as a project participants.

The DNA of Canada also issued a LoA (IRL 4) on 17 February 2011, authorizing the International Bank for Reconstruction and Development as Trustee of the BioCarbon Fund as a project participant, and confirming that Canada is participating party in the project (Canadian DNA, Ministry of Foreign Affairs and International Trade Canada).

Both letters were issued by the respective Party's DNA: the "Ministry of Environment and Forests" of India, and the "Ministry of Foreign Affairs and International Trade Canada" of Canada.

TÜV SÜD received these letters from the project participants and considers the provided letters as authentic. The Indian LoA was further double-checked with the internet database of approved CDM project: <http://www.cdmindia.in/> which further confirms the approval of this CDM project.

TÜV SÜD confirms that both letters refer to the precise proposed CDM project activity title in line with the title in the PDD "Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices".

Both letters also indicate that each participating Party is a Party to the Kyoto Protocol, and that the participation in the project "Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices" 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 these letters, TÜV SÜD considers the approval as unconditional with respect to these items. TÜV SÜD considers that the requirements of VVM (§§ 45-48) are met.

Both LoAs do 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 participants of the project activity were approved by the corresponding Parties, which is confirmed with the issued LoAs. 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. TÜV SÜD considers that the guidelines for the completion of the PDD were followed. Version 04 of the AR-CDM PDD template was used, which is still acceptable as per EB 56 Annex 14. 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 1607 ha of degraded farm lands with the tree species Eucalyptus and Casuarina equisetifolia. The project area is located on discrete parcels of land of 1640 parcels (IRL 33), belonging to local farmers in the states of Orissa and Andhra Pradesh in India.

The project is carried out in cooperation between the NGO “VEDA Climate Change Solutions Ltd.”, which is organizing the farmers, the paper company “JK Paper Ltd”, providing technical support for the plantation and buying the timber from the farmers afterwards and the World Bank (IRL 11).

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-AM0004 version 03 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:

- Environmental Management Framework for the project: Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices. Document by the World Bank (IRL 30);
- Soil Maps of the region (IRL 20);
- Data sheets for baseline assessment (IRL 8);
- Land title and revenue records of the individual parcels of the project area (IRL 10, 15).

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;
- Tool for demonstration and assessment of additionality for afforestation and reforestation 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 1607,7 ha; it consists of 1645 discrete geographic units, which are divided into 1708 parcels, distributed in the states of Orissa and Andhra Pradesh in India. The boundary as defined in the field was found to be consistent with the indications in the PDD (IRL 2) and the digital boundary files (IRL 33). 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:

- Land tenure records (IRL 10)
- Digital boundary files in a Geographic Information System (GIS) (IRL 33). The files are submitted as shape files (data format: ".shp" - *Please note that as per EB 41, item 34 this is an acceptable data format for submission of AR-CDM projects*).
- Field sheets including coordinates obtained from GPS point documenting the assessment of the audit team during the onsite visits (IRL 42).

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 owner of the land (IRL 10). They have signed agreements with the paper company JK Paper (PP) and VEDA Climate Change Solutions Ltd (PP) (IRL 9). These contracts define the rights and obligation of each of the three parties, and it rules in particular land use and the transfer and sale of the carbon credits generated by the project. A representative random sample of 60 contracts was reviewed dur-

ing the onsite visit (IRL 42). A further contract is set up between JK Paper, VEDA Climate Change Solutions Ltd and the World Bank's BioCarbon Fund regarding the sale of carbon credits (IRL 11).

Thus, control over the project area by the PP is considered to be fully established.

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:

- Analysis of satellite images: LANDSAT 1988 and 1989 (IRL 6), IRS-P6 (LISS III) 2003 and 2007 (IRL 7);
- Participatory Rural Appraisal (PRA) Exercise started in 2004 (IRL 14);
- Field data sheets of the baseline assessment (IRL 5, 8)
- Revenue records and ownership title of the individual parcels of the project area (IRL 10, 15).

Vegetation at the time of the project start was assessed and found to be below the forest threshold (according to the DNA definition) (IRL 5, 15, 42). It was assessed that the vegetation prior to project start would not have surpassed this threshold at maturity without the project activity (IRL 5, 42). This assessment was reviewed by the audit team through a number of randomly selected parcels of land, which were visited. A random sample of 60 parcels were visited, including a review of the contractual relations and legal and actual control over the project area by the PPs (IRL 42). 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, the satellite images (IRL 6, 7) and the PRA exercise (IRL 14). 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 continuation of the existing and historical land use leading to further land degradation. This baseline scenario was determined by using the step-wise approach presented in the methodology.

The information presented in the PDD was validated by a document review, the on-site visit of the project area (IRL 1, 42) 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:

- Revenue records of the individual parcels of the project area (IRL 15);
- Field data sheets of the baseline assessment (IRL 5, 34);
- PRA exercise (IRL 14);
- Soil maps (IRL 20);
- Environmental Management Framework (IRL 30).

Documents cited above, 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 GHG removals**

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 25). 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 26, 43). 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 preliminary strata, one for each state (Orissa and Andhra Pradesh), due to the soil and climatic condition. The actual stratification was further defined by the species planted (Eucalyptus clone or seed, or Casuarina) and the planting year. The final stratification is presented in the geographic information system (IRL 5, 33).



Baseline stocks were estimated and considered negligible, as no trees were found on the project area. This was assessed by the PP through field observation during a baseline study (IRL 8) and questionnaire with the farmers (IRL 14). The audit team further confirmed the observation during the onsite visit (IRL 42) and further cross-references such as satellite images (IRL 6, 7) and land classification (IRL 23). Therefore, also the baseline net GHG removals are considered zero in the calculations.

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 and combustion from fossil fuels for onsite vehicles. Respective data and calculations were reviewed by the DOE.

Emissions from fossil fuels for onsite vehicle use are considered insignificant in the particular project context. Furthermore, according to EB report 44, the GHG emissions from fossil fuel combustion may be neglected in A/R CDM project activities.

Biomass burning as potential source of GHG emission as per methodology is not expected according to the project design. Hence, no significant project emissions are expected to occur in the project if implemented as designed.

### 3.5.7 Leakage

The leakage sources according to the chosen methodology are GHG emissions from displacement of pre-project grazing, agricultural activities and fuelwood collection activities, as well as carbon stock decreases caused by the increased use of wood posts for fencing from non-renewable sources.

In regard to leakage due to displacement of grazing and agricultural activities is considered zero. The project area had been classified as marginal land (IRL 10, 15), and as per interviews with the farmers, the land had only been used extensively (IRL 5, 8, 14). Further, the project area consist of small parcels of on average 1 ha (IRL 5, 33), while the parcels in the vicinity are of similar type.

The calculation of leakage is in line with the methodology: No displacement of animals is expected, since under the project scenario more animals can graze, than under the baseline scenario (IRL 5, 14). As demonstrated in section E.5 of the PDD, 1943 animal equivalent units (AEU) are present in the baseline scenario (IRL 2, 5, 14), while at least 2411 AEU are expected to be supported in the project scenario, due to higher grass production in the plantation (IRL 56). Respective calculations were reviewed by the DOE and found in compliance with the methodology. Leakage is included in the monitoring plan to assess its impact also ex-post.

No displacement of agriculture is expected, since on the one hand no displacement is expected (IRL 5, 8, 14) and on the other hand if displacement would occur it would be shifted to lands in the vicinity which also belong to the communities and have similar characteristics as the project area with insignificant amounts of baseline carbon stocks (IRL 14, 23).

Leakage from fuelwood collection is expected to be zero, since wood will be available from thinning and maintenance. Furthermore it was confirmed during onsite interviews that fuel wood was collected only at marginal level (IRL 5, 8, 14).

Also no leakage is expected from fencing, as no fencing is foreseen in the project. Further, fencing as leakage source is insignificant as decided by EB 44.



### 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 growth models developed by JK Paper Ltd. For Eucalyptus and Casuarina the growth models are based on empirical data of JK Paper, derived from monitoring of existing plantations (IRL 26). The data was reviewed by the audit team and cross checked with other scientific literature on increment of Eucalyptus and Casuarina (IRL 51, 52). Biomass Expansion Factors, Root-to-Shoot ratios and Carbon Fraction are taken from IPCC GPG LULUCF (IRL 43); For Wood Density value from IPCC 2006 are applied (IRL 51). The sources were reviewed and confirmed during the onsite visit.

Over the crediting period of 30 years, total net anthropogenic removals of 146,888 t CO<sub>2</sub>-e are expected; although the actual figure cannot be confirmed due to uncertainties in the overall project area (see section 3.5.2). The calculations of the net anthropogenic GHG removals were carried out with an Excel based tool provided by World Bank (TARAM) (IRL 25). 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.

## 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 analysis.

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

- PIN of the proposed CDM project activity submitted to the World Bank BioCF, 30 Dec 2003 (IRL 16)
- Agreement between World Bank BioCF, JK Paper Ltd and VEDA Climate Change Solutions Ltd. (IRL 11)
- Contract between farmers, JK Paper Ltd and VEDA Climate Change Solutions Ltd. Available for each parcel (IRL 9)
- Monitoring of Poverty in Orissa: Report from a Workshop. Economic and Political Weekly. Vol. 38, No. 50 (Dec. 13-19, 2003), pp. 5243-5245. (IRL 53)
- Development Policies and Rural Poverty in Orissa: Macro Analysis and Case Studies. Supported by Planning Commission, Gol. (IRL 54)
- Indian Paper Industry Raw Material Scenario, Growth Prospects and Pathways (IRL 36)
- Article by JKPL in Indian Pulp and Paper Technical Association (IPPTA) Journal, Vol 20, No. 1, Jan-Mar 2008 (IRL 37)
- Institutional Credit and Factors Influencing Its Flow to Agriculture in Orissa, Indian Journal of Agricultural Economics, (IRL 38)
- 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 39)
- Investment Behaviour of Farm Households and Flow of Institutional Credit - A Study in Orissa, Indian Journal of Agricultural Economics, July 1, 2005. (IRL 40)
- Impact of Institutional Finance on Farm Income and Productivity: A Case Study of Orissa, Indian Journal of Agricultural Economics. (IRL 41)
- UNFCCC webpage (IRL 49, 50)

Furthermore, the additionality analysis was discussed onsite with the project team of the World Bank's Bio Carbon Fund, VEDA Climate Change Solutions Ltd and JK Paper Ltd as project participant (IRL 1). Interviews on this topic were also carried out with stakeholders during the onsite visit (IRL 1, 42). 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:

- Monitoring of Poverty in Orissa: Report from a Workshop. Economic and Political Weekly. Vol. 38, No. 50 (Dec. 13-19, 2003), pp. 5243-5245. (IRL 53)
- Development Policies and Rural Poverty in Orissa: Macro Analysis and Case Studies. Supported by Planning Commission, Gol. (IRL 54)
- Forest Policy of India (IRL 22)
- BILT webpage (IRL 45)
- Indian Paper Manufacturers Association (IRL 48)

Based on the aforementioned approach, TÜV SÜD confirms that the documentation provided is appropriate to confirm the additionality for this project. Further analysis of the additionality is summarized in the sections below (3.6.1 – 3.6.4).

### **3.6.1 Start date and prior consideration of the CDM**

The project started on 25 June 2004. The starting date of the project activity is determined by the actual planting of trees on the first parcel of the project area (IRL 17). 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 a Project Idea Note (PIN) from the VEDA MACS (predecessor to VEDA Climate Change Solutions), dated 30 December 2003 (IRL 16), and submitted to the World Bank in January 2004. The PIN was provided to the audit team and is considered adequate evidence 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 indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation.

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**

Relevant alternatives (baseline scenario) were identified in the context of the additionality test: (i) abandonment of agriculture on the lands, (ii) continuation of the prevailing practice of subsistence agriculture and (iii) implementing the reforestation activity not as a CDM activity.

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 (IRL 8, 14, 15, 20, 22, 23) and the discussion held with the project participants during the onsite visit (IRL 1, 42), 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 Barrier analysis

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

- Institutional barrier – lack of organisation of farmers
- Investment barrier
- High transaction costs of sourcing raw-material from small and marginal farmers
- Technological barriers

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 barriers for the project implementation without CDM are the institutional, investment and technological barriers.

The **investment barrier** is sustained by the low income of the participating farmers on the limited land holding (IRL 8, 14, 53-55). Combined with a delay of the income stream (harvest and financial return only after 5 years) this would not be feasible without the project set-up. Further the farmers do not have access to loans from banks to pay for the establishment of the plantation (IRL 38, 39, 40, 41).

Due to the involvement of the World Bank's Bio Carbon Fund early money streams are available.

The **institutional barrier** is sustained considering that there are no organisations of farmers that could organize the farmers in a respective ways to apply for carbon finance such as CDM (IRL 14). VCCSL, JKPL and WB BioCF are facilitating this project. Similar there is a **technology barrier** for the farmer to establish the plantation, as JK Paper Ltd is providing the technical support to implement the technology in the project.

Both VCCS and JKPL do not have any revenues from the project other than from sales of carbon certificates. VCCS main business is supporting climate change project; JKPL would alternatively acquire their raw material on the open market. As per contract with the farmers JKPL is paying a minimum price for the wood to the farmers, adapted to market condition at time of sales (IRL 9). Thus their income from carbon is mainly covering the transaction costs for working with small farmers in this project (average size of parcel is 1 hectare) (see barrier "high transaction costs of sourcing raw-material from small and marginal farmers").

The result of this assessment shows that the barriers presented in the PDD are 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 e.g. confirmed by the interviewed stakeholders (IRL 1, 42).

### 3.6.4 Common practice analysis

The region for the common practice analysis was defined as the geographical area of the states of Orissa and Andhra Pradesh. 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. 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 (IRL 45, 48, 49, 51). However there are essential distinctions: Two project activities are also made possible through CDM: one activity is a registered CDM project (CDM reference # 2241), the other is currently under validation (IRL 49). A third project (Ballarpur Industries Limited - BILT) is conducting similar activities without carbon finance (IRL 45). As stated in the PDD, the farm forestry project of BILT is however made possible due to public funding (IRL 45). Hence the proposed AR-CDM project activity is not considered common practice due to its essential differences to the other ongoing activities.

### 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.

Although leakage is not expected in the ex-ante calculations, it is included in the monitoring plan, as required by the methodology.

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 (IRL 42) and found to be in compliance with methodological requirements, and good practice as defined e.g. in the IPCC GPG LULUCF (IRL 43). The determination of sample plots is in line with the methodology, as a conservative approach additional sample plots will be installed to assure the requested accuracy at monitoring (IRL 19).

The sample 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 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 27).

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.

### 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 3).

### **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 38, 39, 40). Also a PRA exercise was conducted to obtain general information and feedback from the local communities (IRL 15).

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 (IRL 30, 31, 32) and confirmed with interviews with stakeholders of the community by the audit team during the onsite visit, and it 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 (IRL 47). However, an environmental and social impact assessment according to the requirements of the World Bank was carried out (IRL 30). Both environmental and social impacts of the project were analyzed in detail in this study.

In essence, the audit team concluded that no negative environmental and social impacts are expected. 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.

## 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

<b>webpage:</b> <a href="http://cdm.unfccc.int/Projects/Validation/DB/18OZONIVT66PIKEQ6APYNE8RHCUCMX/view.html">http://cdm.unfccc.int/Projects/Validation/DB/18OZONIVT66PIKEQ6APYNE8RHCUCMX/view.html</a>	
<b>Starting date of the global stakeholder consultation process:</b> 28 Mar 2009	
<b>Comment submitted by:</b> Moonis	<b>Issues raised:</b> <p>In the A.4.2., GPS coordinates of each parcel should be listed and integrated in the Project Design Document.</p> <p>In the D.2, any possibility leakage due to displacement of live-stock should also be discussed. Even though land is classified as cropland with subsistence farming, there could be possibility of grazing on sparse grassy vegetation present in fallow agriculture lands within the project area.</p>
<b>Response by TÜV SÜD:</b> <p>An overview map of all parcels included in the PDD in section A.4.2. Further, the detailed boundary delineation of the project area can be seen in the GIS files uploaded to UNFCCC together with the final PDD.</p> <p>Section D.2 of the final version of the PDD is discussing possibilities of leakage. Leakage was also assessed by the audit team during the onsite visit and document review. Leakage is not considered significant as detailed also in section 3.5.7 of this validation report.</p>	



## 5 VALIDATION OPINION

TÜV SÜD performed a validation of the following proposed CDM project activity “Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices”.

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. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of GHG removals as specified within the final PDD version.

The validation is based on the information made available to TÜV SÜD, as well as the engagement conditions detailed in this report. The validation has been performed following the VVM requirements. The single purpose of this report is its use during the registration process as part of the CDM project cycle.

Munich, 21 February 2011



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Thomas Kleiser

Certification Body “climate and energy”  
TÜV SÜD Industrie Service GmbH

Munich, 21 February 2011



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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
<b>A. General Description of the Project Activity</b>				
<b>A.1 Title of the project activity</b>				
Does the used project title clearly enable to identify the unique CDM activity?	2	The project title "Improving Rural Livelihoods through Carbon Sequestration by Adopting Environment Friendly Technology based Agroforestry Practices Clearly identifies the unique CDM activity.	<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 consistent. The PDD presented is version 01, dated February 11 <sup>th</sup> 2009. The final PDD is version 06, dated 03 February 2011.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2 Description of the project activity</b>				
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	The project activity, the place of implementation and the socio-economic situation of the population in the project area, has been short described. The specific objective: <ul style="list-style-type: none"> <li>• GHG removal by sink</li> <li>• development of agro forestry with multiple benefits</li> <li>• generation of additional income</li> <li>• protection of water erosion</li> <li>• benefits for the local industry</li> <li>• capacity building</li> </ul> are named. The project is a reforestation on degraded lands in the states of Andhra Pradesh and Orissa. The reforestation activities were initiated in 2004 with a plan to complete them over a period of 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl						
		years. The project will contribute to the sustainable development e.g.: <ul style="list-style-type: none"><li>• development of mechanism of A/R CDM projects</li><li>• improvement of productivity of degraded land</li><li>• dissemination of best practices in plantation and agro forestry</li><li>• promotion of farmer-industry partnership</li><li>• strengthening of the capacity of resources-poor farmers</li><li>• conservation of biodiversity.</li></ul> The project will be financed by project participants. The management of the project is in the hand of JK Paper Ltd. 80% of the carbon revenue will be transferred to the participating farmers. The species to be planted are Eucalyptus and Casuarina sp.								
A.3 Project participants										
Have the Parties and project participants participating in the project been listed in the table as required?	2	Parties and participants have been listed correctly.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Have all involved Parties provided a valid and complete letter of approval and have all private/public project participants been authorized by an involved Party?	2, 3, 4	The host country LoA from Indian National CDM Authority was provided. The title of the project used in the LoA is different from the title in the PDD. Also the LoA from Canada was provided on 17 February 2011.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
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	Yes, all criteria a complied with. For forest definition see: <a href="http://cdm.unfccc.int/DNA/ARDNA.html?CID=101">http://cdm.unfccc.int/DNA/ARDNA.html?CID=101</a> <table><tr><td>single 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 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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
single 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, 5, 33	The information on project location in regard to Districts/ region: - Koraput, Kalahandi and Rayagada in Orissa,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p>- Visakhapatnam, Vizianagaram and Srikakulam in Andhra Pradesh is provided.</p> <p>The number of villages and farmers participating in the project is high and scattered over the 6 districts. The communities are listed in the Annex 5.</p>		
A.4.2 Has an appropriately detailed geographic delineation of the project boundary including a unique identifier been included?	2, 5, 33	<p>The maps of districts included in the projects are presented. Information about the land utilization in the districts is provided in the PDD. The project area covers 1607.7 ha; it consists of 1645 discrete geographic units, which are divided into 1708 parcels, distributed in the states of Orissa and Andhra Pradesh in India. All parcels are at the end of the validation include in the GIS. GPS coordinates are taken for all corners.</p> <p>Initially not all parcels were included in the GIS and some plots were smaller than 0.05ha which are below the forest definition of India.</p> <p><b><u>Corrective Action Request No 1.</u></b></p> <p>a) Add a unique ID number for each parcel. The ID should refer to each discrete parcel of land and not to the land owner</p> <p>b) Add a map showing all parcels (big and small), including coordinates, northing etc.</p> <p>c) Produce one GIS file containing all parcels (smaller <i>and</i> larger than 2 ha)</p> <p>d) The accuracy of the GPS readings is mentioned as 50 meters in the PDD. Re-check the accuracy; it shall be no more than 10 meters.</p>	CAR	<input checked="" type="checkbox"/>
AR-AM0004_ver3, section II.1				
Is the project boundary under control of the participants geographically delineated?	2, 9, 10	The parcels are on private lands, a contract with the owners is signed ( <b>see section A.6</b> )	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Does each discrete parcel of land have a unique identification?	2, 8, 33	A list with IDs for each parcel was provided, however, the IDs are not unique, <b>see CAR above</b>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
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, 5	The plantation already started in 2004 until 2007, thus all areas are already under reforestation activities.	<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, 20, 21, 23, 30	<p>Climate, hydrology, soils and ecosystem are described.</p> <p>The major soil types in the project area are red sandy, sandy loams, lateritic, and alluvial soils.</p> <p>The climate of the project area is characterised through a monsoon in June-September followed by post-monsoon, winter and summer. The temperature is pending between of 12°C and 49°C during the year. Also the rainfall variety is high. The landscape is undulated. The forest types are a moist peninsular Sal and moist mixed deciduous forest in Orissa and miscellaneous forest in Andhra Pradesh. The present vegetation in the project area is degraded farmland.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5.2 Have any rare or endangered species been defined as present?	2, 30	<p>An Environmental Management Framework (EMF) was conducted by the World Bank. The assessment of the species is included in the forest management plan for each area. According to those studies, there is no indication of endangered species in the project area. Besides the World Bank has safeguard policies OP/BP 4.36 for forests and OP/BP 4.04 for natural habitats.</p> <p><b><u>Clarification Request 1.</u></b></p> <p>Give further explanation on endangered species, refer to World Bank Policy and the specific section of the World Bank environmental impact report</p>	CR	<input checked="" type="checkbox"/>
A.5.3 Have the species and varieties to be grown been adequately described?	2, 12	The planted species are sufficient described. Two tree species <i>Eucalyptus ssp.</i> and <i>Casuarina equisetifolia</i> are going to be cultivated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5.4 Has the technology to be employed (including environmen-	2, 13,	The plantations techniques are properly described. Modern plan-		

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
tally safe and sustainable/renewable technologies) been adequately described?	27, 29	<p>tations techniques are going to be used. Advanced standards for establishment, management, monitoring and verification are described. Seedlings are mostly from the JKPL own nursery. Only small holes are going to be manually pitted for planting / site preparation. Manual and chemical weeding is going to be deployed.</p> <p>The <i>Eucalyptus</i> is going to be coppiced and regenerated naturally in 5 years rotations period.</p> <p><b><u>Clarification Request 2.</u></b></p> <p>Describe the management, thinning, harvesting and regeneration/planting of <i>Casuarina equisetifolia</i>.</p>	CR	<input checked="" type="checkbox"/>
A.5.5 Has the know-how with specifications of whether it will be transferred to host Parties been adequately described?	2	n/a.	<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>The possibility of leakage is analysed in the section E.5. Displacement of pre-project agricultural crops, fuel wood collection and of grazing activity is not expected. Most of the land is barren land, so no leakage is expected.</p> <p><b><u>Clarification Request 3.</u></b></p> <p>Describe in this section of the PDD if leakage is expected in the project scenario.</p>	CR	<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, 9, 10	The land belongs to the small farmers, who have the right to re-forest it, to sell the wood and also the revenues generated from the sale of emission reductions. Land tenure is proven by government records. The rights to the carbon revenues are described in the tripartite agreement (farmer, JKP, VEDA CCSL).	<input checked="" type="checkbox"/>	<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	2, 10, 11	The legal title of the land, the right of access to the sequestered carbon, current land tenure and use for each discrete area of land	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
area of land been described?		<p>is provided.</p> <p>A tripartite agreement between the farmer, JKPL and VEDA CCSL is signed under which JKPL is committed to provide the seedlings, monitoring and evaluation and technical assistance during the plantation as well as facilitate/coordinate with VEDA the activities required to get the carbon revenue. The farmer is committed to conduct the tree planting, maintain the plantation and consents to JKPL and VEDA to arrange the carbon revenues for the plantation raised by him/her. The farmer will receive no less than 80% of the carbon revenues. VEDA is committed to coordinate with the World Bank and the DNA of India and other relevant institutions in order to materialize the carbon credits for the plantations raised by the farmers.</p> <p>The agreement is in both English and local language.</p>		
A.7 Assessment of the eligibility of lands				
Has the latest version of the AR eligibility tool been applied?	2, 6, 7, 8, 13, 14, 15	<p>The assessment of eligibility was carried out. The used tool and approach was not specified.</p> <p><b><u>Clarification Request 4.</u></b></p> <p>Reference the latest version of the tool to demonstrate eligibility.</p>	CR	<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 &gt;50 y)</p>	2, 6, 7, 8, 13, 14, 15	<p>Three evidences were provided that land was not forested at project start and by December 1989:</p> <ol style="list-style-type: none"> <li><b>Revenue record</b> from the government for each parcel: For each parcel a revenue record is available, stating that the land is classified as degraded lands.</li> <li><b>Satellite image analysis:</b> The analysis of satellite images was made by an external consultant (<i>Science</i>) for parcels larger than 2 ha. The analysis was based on satellite images: Landsat TM 1988, 1989 of 28m resolution, IRS-P6 (LISS III) 2003 and IRS-P6 (LISS III) 2007 of 23.5m resolution and the GPS locations of field parcels. The accuracy of the GPS readings was 7m. A GIS data-</li> </ol>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p>base is created for the 475 parcels of land larger than 2 ha, the rest of the parcels have been mapped with GPS coordinates. Also the official maps from revenue office are available, outlining the boundary of each parcel. <b>See CARs in A.4.2</b></p> <p>3. <b>Participatory Rural Assessment</b> was carried out in 92 villages by the districts officers of JKPL:</p> <p>The PRA was conducted in order to collect basic information including the extension of each parcel available for the project. This information was then compared with a GIS analysis conducted over the 475 parcels larger than 2ha and the final extent was determined for those parcels.</p> <p><b><u>Corrective Action Request No 2.</u></b></p> <p>a) In addition to the CAR in section A.4.2, ensure that also the plots smaller than 2 ha are eligible, by assessing the land cover at time of project start and on Dec 1989 from the satellite images for these parcels.</p> <p>b) The parcels of land smaller than 0.05ha must be excluded from the project. Provide an updated table with all parcels included in the project area.</p>		
Has the assessment of the eligibility of the land been adequately described?	2	See above.	CAR	<input checked="" type="checkbox"/>
A.8 Approach for addressing non-permanence				
Has the approach to address non-permanence been specified (tCER, ICER)?	2	tCERs have been chosen to address non-permanency.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.9 Estimated amount of net anthropogenic GHG removals by sinks				
Are Has the table on estimated net anthropogenic removals over the chosen crediting period been completed?	2,	The summary table in section A.9 has been completed. Baseline removals are set 0.	CAR	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p>Estimation of actual net GHG removals by sinks: 146,888 tCO<sub>2</sub>e  Estimation of leakage: 0 tCO<sub>2</sub>e  Estimation of net anthropogenic GHG removals by  Sinks: 146,888 tCO<sub>2</sub>e</p> <p><b><u>Corrective Action Request No 3.</u></b>  Adapt the figures according to changes in project area, removal calculations.</p>		
A.10 Public Funding				
Is indication on public funding (from Annex I countries) included to the PDD?	2	<p>No funding from an Annex 1 country and no public funding at all is involved in the project activity.</p> <p><b><u>Corrective Action Request No 4.</u></b>  Provide document from Canada that no ODA is included</p>	CAR	<input checked="" type="checkbox"/>
<b>B. Duration of the Project Activity / Crediting Period</b>				
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, 16, 17, 18	<p>According to the GSP PDD the starting date is 1<sup>st</sup> October 2004, however it was verified during onsite visit that the planting activity started in July 2004.</p> <p>The first PIN was submitted in 2003 to the World Bank and approved in 2004 and registered at the World Bank website code P0955901. The project was approved in 2004.</p> <p><b><u>Corrective Action Request No 5.</u></b>  Modify the starting date of the project according to the start of the planting activity.  Provide evidence (document) for the exact starting date of the project.</p>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
B.2 Expected operational lifetime				
Has the expected operational lifetime been defined?	2	The operational lifetime is defined as 30 years	<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	<p>The project crediting period is fixed. 30 years and 00 months.</p> <p><b><u>Clarification Request 5.</u></b></p> <p>Clarify and include in PDD how to avoid of coincidence of peaks in carbon stocks and verification, according to CDM VVM (paragraph 151).</p>	CR	<input checked="" type="checkbox"/>
<b>C. Application of Baseline and Monitoring Methodology</b>				
C.1 Title and reference of approved methodology				
Has the approved methodology and any other methodologies or tools used been properly referenced (including version no.)?	2	The methodology is referenced: AR-AM0004 /Version-03 named "Reforestation or Afforestation of Land Currently under Agricultural Use"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has the most current version of the methodology been used (consider also PDD formats, eligibility tool, AR add. tool)?	2	The most current version of the methodology has been applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2 Assessment and justification of selected methodology				
AR-AM0004_ver3, section I (applicability criteria)				
Does the project use the baseline approach from 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	see C.5.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Type of project activity	2	It is a reforestation project designed to meet commercial and industrial needs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is the selected project activity an afforestation or reforestation of degraded land, which is subject to further degradation or remains in a low carbon steady state, through assisted natural regeneration, tree planting, or control of pre-project grazing and fuel wood	2, 8, 20, 23, 42	The lands to be afforested /reforested are highly degraded and are subjected to further degradation or will remain low in a carbon steady state in absence of the present project activity which proposes to undertake agro-forestry plantation in these degraded	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
collection activities (including in-site charcoal production)?		lands. <b><u>Clarification Request 6.</u></b> Provide evidence covering all parcels of land subject to further degradation or will remain low in a carbon steady state in absence of the present project activity. ( <i>see also CR 7</i> )		
The project activity can lead to a shift of pre-project activities outside the project boundary, e.g. a displacement of grazing and fuelwood collection activities, including charcoal production;	2, 5, 8, 15	Grazing takes place in common land while the project activity is entirely implemented in private land, therefore no activity displacement will take place.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Conditions of applicability</b>				
Lands to be afforested or reforested are severely degraded and the lands are still degrading or remain in a low carbon steady state;	2, 8, 20, 23, 42	Lands to be afforested or reforested are degraded and the lands are still degrading or remain in a low carbon steady state; A map of soil loss tolerance limit indicates the level of degradation of the soil in the project area <b><u>Clarification Request 7.</u></b> Provide the soil loss tolerance limit covering all project area (all parcels) and include the information in the PDD.	CR	<input checked="" type="checkbox"/>
Site preparation does not cause significant longer term net decreases of soil carbon stocks or increases of non-CO <sub>2</sub> emissions from soil;	2, 27, 29	Site preparation does not cause significant longer term net decreases of soil carbon stocks or increases of non-CO <sub>2</sub> emissions from soil. Manual planting is conducted in all parcels of land. However, ploughing is conducted before planting and during rainy season. <b><u>Clarification Request 8.</u></b> Explain why ploughing does not increase the GHG emission	CR	<input checked="" type="checkbox"/>
Carbon stocks in soil organic carbon, litter and dead wood can be expected to decrease more due to soil erosion and human intervention or increase less in the absence of the project activity, relative to the project scenario;	2, 27, 29	Carbon stocks in soil organic carbon, litter and dead wood can be expected to decrease more due to soil erosion and human intervention or increase less in the absence of the project activity, relative to the project scenario. The soil erosion of the parcels of land was also evident during onsite visits.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
Flooding irrigation is not permitted;	2, 27, 29	Flooding irrigation is not permitted. Water is a scarce resource in the region. The site conditions were verified during the field visit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Soil drainage and disturbance are insignificant, so that non CO <sub>2</sub> -greenhouse gas emissions from this type of activities can be neglected;	2, 27, 29	Soil drainage and disturbance are insignificant, so that non CO <sub>2</sub> -greenhouse gas emissions from this type of activities can be neglected.  The project is not conducted on organic soils, and no drainage is conducted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
The amount of nitrogen-fixing species (NFS) used in the AR CDM project activity is not significant, so that greenhouse gas emissions from denitrification can be neglected in the estimation of actual net greenhouse gas removals by sinks;	2	According to the PDD, the amount of nitrogen-fixing species (NFS) used in the AR CDM project activity is not significant, so that greenhouse gas emissions from denitrification can be neglected in the estimation of actual net greenhouse gas removals by sinks.  <b><u>Clarification Request 9.</u></b> Refer to EB decision 44, mentioning that emissions from nitrogen fixing species are not considered relevant anymore.	CR	<input checked="" type="checkbox"/>
The AR CDM project activity is implemented on land where there are no other on-going or planned AR activities.	2, 45, 46, 48, 49, 50	The AR CDM project activity is implemented on land where there are no other on-going or planned AR activities.  During the on-site visit it was found that there are other reforestation programmes in the region conducted by the forest service, the coastal reforestation scheme and reforestation by other paper companies on private lands.  <b><u>Clarification Request 10.</u></b> Explain in the PDD that other reforestation programmes will not occur on the land subject to the project activity (e.g. Coastal Reforestation Program, afforestation by the forest service and other private companies). <b>See also CAR in C6</b>	CR	<input checked="" type="checkbox"/>
Are the carbon pools considered in the project activity in line with the requirements of the methodology?	2	Carbon pools selected comply with the requirements of the methodology. Since there are no forests (trees) in the project area prior to project start, both dead wood and litter is considered to have	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		low stocks, subject to further decrease or low carbon steady state. Soil organic carbon is conservatively not selected		
C.3 Assessment of the selected carbon pools and emission sources				
Has an assessment of the appropriateness of choice of carbon pools and emission sources selected to the project activity been included to the PDD?	2	The carbon pools selected for monitoring under the project are noted and justified. Also the sources of emissions from the project activity are listed and explained.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.4 Description of ex ante stratification				
AR-AM0004_ver3, section II.3				
<p>Step 1: Stratification according to pre-existing conditions and baseline projections</p> <ul style="list-style-type: none"> <li>a. Are the factors defined (land use, soil, climate, etc) that influence carbon stocks?</li> <li>b. Has local site information been collected considering these factors (e.g. maps)?</li> <li>c. Has information of pre-project distribution of ruminant animals been compiled?</li> <li>d. Has information been collected on pre-project production of crops</li> <li>e. Has preliminary stratification been carried out based on the collected information?</li> <li>f. Have the site specifications been sampled for pre-limmar strata, eg. on vegetation cover and type, deforestation, tenure, animal pressure, etc. ?</li> <li>g. Has the final stratification been carried out considering f) and do the strata differ significantly?</li> <li>h. In case of highly variable landscapes, the option exists to carry out a systematic unbiased sampling. In case of this approach, has the methodology been complied with, e.g. in regard to intensity (&gt;100 plots or min 1 plot per 5 ha)?</li> </ul>	2, 5, 6, 7, 8, 15, 20, 23	<p>The project activity are distributed in two provinces. In each province the soil conditions, landform, vegetation, erosion intensity, scheduled tree species and the planting time were defined as the carbon stock influencing key factors. Local information of the key factors, land use/cover maps were collected.</p> <p>Data on pre-project distribution of livestock and production of crops were collected from official sources and field data.</p> <p>The preliminary stratification was conducted. Initially the basis strata were categorized into two strata, but finally according the similar agro-climatic conditions only one baseline stratum was defined.</p> <p>The land use, the state census for livestock and the revenues records were assessed in the PRA by the field officers of JKPL.</p> <p><b><u>Corrective Action Request No 6.</u></b></p> <ul style="list-style-type: none"> <li>a) Define clearly the three steps of the stratification as required in the applied methodology.</li> <li>b) Describe the sources used for the stratification and provide further explanation in the PDD for each of the sub steps (a - e)</li> <li>c) As per methodology required, management details of the planting and maintaining has to be described in the PDD.</li> </ul>	CAR	<input checked="" type="checkbox"/>
Step 2: Stratification according to the planned AR-CDM project	2	The lands of the project area are defined as "stand models". Two	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
<p>a. Has the stand model been defined, including the following:</p> <ul style="list-style-type: none"> <li>Species / species combination (cohorts)</li> <li>Growth assumptions for species or species combinations</li> <li>silvicultural / management details (planting, fertilizing, thinning harvesting, etc. by specifying timing, age class, fertilizer quantities, volumes thinned, harvested and left onsite, etc)</li> </ul> <p>b. Is the establishment timing defined for each model, including date, area, and geographic location?</p> <p>c. Is the project area stratified accordingly and do the strata differ significantly?</p>		<p>species going to be planted in the project are <i>Eucalyptus</i> and <i>Casuarina</i>. The <i>Eucalyptus</i> will be cultivated in two different ways. Therefore, three species strata were defined.</p> <p>The planting was carried out from 2004, until 2007.</p> <p><b>See CAR above</b></p>		
<p>Step 3: Final Ex-ante stratification.</p> <p>a. Has each strata been delineated verifiable using geographic data provided by GPS and / or georeferenced spatial data, and is that data consistent?</p> <p>b. Is that data preferably managed in a GIS in order to facilitate ex-post stratification?</p>	2, 5, 25, 33	<p>In the GSP PDD six strata on the basis of the planted species and two land parcel sizes (<math>\leq 5</math> ha and <math>&gt; 5</math> ha) were defined. The result, split in the planting years, is presented in table. The strata are not delineated verifiable as required. GIS data was provided to DOE</p> <p>In the final PDD 5 strata are defined: Clonal and seed Eucalyptus each in Orissa and Andhra Pradesh, and Casuarina (only in Andhra Pradesh)</p> <p><b>Corrective Action Request No 7.</b></p> <p>a) Ensure consistency in the number of strata throughout the PDD. (24 strata were discussed during onsite visit)</p> <p>b) Provide geo-referenced, verifiable data of the stratification and include them in to the PDD, as annex.</p>	CAR	<input checked="" type="checkbox"/>
Are the results of the stratification included to the PDD?	2	See 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	The baseline scenario has been determined following the methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AR-AM0004_ver3, section II.4				
Step 1: Compliance with applicability criteria	2, 8	The land is degraded subsistence agriculture. It is expected to	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		degrade further in the absence of the project. The baseline approach 22(a) was chosen. <b>See C1</b>		
<i>Step 2: Definition of project boundary</i>	2, 33	The clear identification of the parcels is provided through GIS and coordinates. Measurements are done physically. Land boundary are further identified by official Land Administration <b>See CAR in A4.2.</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Step 3</i>				
a) Analysis of historic and land use / cover change in the context of socioeconomic conditions and identification of key factors that influence land use change over the relevant timeframe (acc. AR definitions, using e.g. multi-temporal images, field studies, interviews, other sources)	2, 6, 7, 13, 15, 42, 54	The project lands are degraded, low productivity agriculture. The socioeconomic conditions of the owner do not indicate any change. The project area has been without forest also before 1989. Natural forest succession is not to be expected. <b>See CAR in A7</b>	CAR	<input checked="" type="checkbox"/>
b) Demonstration that land use / cover change has lead to a progressive degradation (e.g. vegetation or soil), including decrease or steady state of carbon stocks, using verifiable indicators that are sustained by further evidence.	2, 8, 20, 23, 42	The land is used for subsistence farming, short duration millet cropping. Fallow land is used for grazing of fuel wood collection. <b>See CR in C2</b>	CR	<input checked="" type="checkbox"/>
c) Brief description of national, sectoral, local land use policies or regulations adapted before 11. Nov. 2001, that may impact and land use / cover change and demonstrate that they do not impact the project area significantly. (if they do, baseline can not be degraded land / extended applicability criteria)	2, 22	The National Forest Policy prescribes that 33% of the total area of the country should be under forest. However, because of not adequate resources, the policy is not implemented. <b>Clarification Request 11.</b> Add information on forest area in India (Forest Survey of India) and clarify why the National Forest Policy is not applicable to private land.	CR	<input checked="" type="checkbox"/>
d) Identification of alternative land uses (including public or private activities) that are not in contradiction with regulations or policies, using appropriate sources. (if the land use is likely to change, then this methodology is not applicable / extended applicability criteria)	2, 42, 54	The alternatives to the project are: <ul style="list-style-type: none"> <li>Abandonment of agriculture on the lands</li> <li>Continuation of the prevailing practice of subsistence agriculture</li> <li>Implementing the reforestation activity not as a CDM</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		project activity In case "without the project" the land is expected to stay in the same conditions as subsistence agriculture and degraded further.		
e) Is it demonstrated that the land use / cover in the boundary would not change and /or is likely to lead to further degradation, e.g. by assessing attractiveness / benefits to locals, stakeholder consultations, and barriers for alternative land uses. (if the land use is likely to change, then this methodology is not applicable / extended applicability criteria)	2	See above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 4				
Has the actual stratification of land areas within the project boundary occurred considering the indications of final ex-ante stratification (verifiable boundaries with GPS or remote sensing coordinates, managed in GIS; meth. Section II.3)?	2	The stratification of the project area is described in the section C.4. <i>See comments / requests above.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 5				
Has the baseline scenario for each stratum been determined? And has an analysis of the possibility of self encroachment of trees been carried out using appropriate (field) methods.	2	General baseline scenario was estimated. While there are no trees in the project area and they are not expected to encroach on and reach the threshold for the national forest definition, the baseline net greenhouse gas removal by sinks is set zero.  <b><u>Corrective Action Request No 8.</u></b> There is no information in Step 5 in the PDD. Include the corresponding information in this section. The last part in section C.5.1 should be moved to section C.7	CAR	<input checked="" type="checkbox"/>
C.5.2 Is the description of the baseline scenario applying to each stratum reasonable?	2	There is no significant difference in the baseline net GHG removals by sinks. Therefore, all the land parcels of the baseline strata scenario were grouped into one baseline stratum.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.6 Assessment and demonstration of additionality				

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
<b>Step 0. Preliminary screening</b>				
<p>If the project participants claim that the afforestation or reforestation CDM project activity has a starting date after 31 December 1999 but before the date of its registration:</p> <ul style="list-style-type: none"> <li>a) Has evidence been provided that the starting date of the A/R CDM project activity was after 31 December 1999,</li> <li>b) 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).</li> </ul>	2, 16, 17, 18, 42	<p>The project was approved by the World Bank in 2004 while the initial concept idea of the project was in 2003 (see PIN for the World Bank, which sustains early CDM consideration).</p> <p>During field visit it was verified that the plantation started in June 2004, considering the age and size of the trees.</p> <p>Project start is 25 June 2004, which is the actual planting of trees on the first parcel.</p> <p><b>See CAR in section B1</b></p>	CAR	<input checked="" type="checkbox"/>
<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"> <li>• Continuation of the pre-project land use</li> <li>• AR of the land within the project boundary performed without being registered as the A/R CDM project activity</li> </ul> <p>If applicable,</p> <ul style="list-style-type: none"> <li>• 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"> <li>○ legal requirements;</li> <li>○ or extrapolation of observed forestation activities in the geographical area with similar socio-economic and ecological conditions to the proposed A/R CDM project activity occurring in a period since 31 December 1989, as selected by the PP.</li> </ul> </li> </ul>	2, 8, 42, 54	<p>Through survey and interviews in the field the following alternatives were identified:</p> <ul style="list-style-type: none"> <li>• Abandonment of agriculture on the lands</li> <li>• Continuation of the prevailing practice of subsistence agriculture</li> <li>• Implementing the reforestation activity as non-CDM project activity.</li> </ul> <p>There are other reforestation activities in the region on private lands. It was mentioned that these activities are possible for farmers owning large areas of land who can afford the plantation costs. The wood will be sold to the paper companies to supply the raw material.</p> <p><b>Clarification Request 12.</b></p> <p>Consider also the activities / option for raw material supply of JKP in the alternative scenario " reforestation as non-CDM activity" (<b>See also CAR in step 3</b>)</p>	CR	<input checked="" type="checkbox"/>
<p>Are the alternative(s) in compliance with all mandatory 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. pre-</p>	2	<p>All alternatives are in compliance with Indian legal requirements.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
valent on at least 30% of the area of the smallest administrative unit that encompasses the project area;				
Is the project scenario not the only remaining alternative?	2	All three scenarios are remaining. <b>See CAR below</b>	CAR	<input checked="" type="checkbox"/>
<b>Step 2: Investment analysis</b>		No investment analysis was conducted. The additionality is based only on barriers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Step 3: Barrier Analysis</b>				
In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the implementation of this type of proposed project activity; and do not prevent the implementation of at least one of the alternative land use scenarios.	2	Barriers related to: a) investment b) technology c) prevailing practice d) small land holdings e) market f) delayed income stream from tree growing g) institutional capacity were analysed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	2, 8, 9, 15, 24, 36-41, 53-55	Explanations to all barriers are given in the PDD. The Tripartite Agreement signed between the Farmer, JKPL and VEDA can be used as a guarantee to ask for a loan to the bank in order to get the capital needed for buying the seedlings, however most of the interviewed farmers did not access to a loan from the bank because they are afraid of losing their lands and they can afford buying the seeds by their own and they will also prepare the land themselves. On the other hand, some small and marginal farmers asked for a loan from the bank.  <b><u>Corrective Action Request No 9.</u></b> Sustain each barrier with evidence (and provide it to DOE), or exclude the barrier from the analysis.	CAR	<input checked="" type="checkbox"/>
In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not	2, 8, 9, 15, 24, 36-41,	The analysis shows that the barriers will not prevent the implementation of at the baseline scenario.	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
prevented by the identified barriers?	53-55	<p><b><u>Corrective Action Request No 10.</u></b></p> <p>a) Show which land use alternative is hindered by which barrier(s) and identify at least one viable alternative land use scenario.</p> <p>b) Explain why the alternative “reforestation activity as non-CDM” is not viable from JKP point of view; considering the increasing need for raw material from plantations, and the increasing costs in transportation. (<b><i>See also CR in step 1</i></b>)</p>		
<b>Step 4. Common practice analysis</b>				
Is the project activity common practice in the region? Has a common practice analysis been carried out in line with the requirement of the CDM and are there essential distinctions between them. Are there fundamental and verifiable changes in circumstances when compared to other projects (e.g. explain why the proposed CDM AR project cannot use e.g. political benefits granted in other projects)	2, 45-50,	<p>There were earlier reforestation activities in the region. But this project is considered first of its kind in this region.</p> <p><b><u>Clarification Request 13.</u></b></p> <p>a) Define the area considered as the “region”, and clarify why afforestation is happening in the region, but not on small and marginal wasteland.</p> <p>b) Provide information on afforestation and provide common praxis analysis, comparison of this project with the earlier reforestation activities, as required in the applied methodology.</p>	CR	<input checked="" type="checkbox"/>
<b>C.7 Estimation of the ex ante baseline net GHG removals</b>				
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,	<p>The ex-ante baseline removal calculation is presented in table, as required.</p> <p><b><u>Corrective Action Request No 11.</u></b></p> <p>Provide further information on the baselines survey:</p> <p>a) Explain how the sample plots were selected and discuss the accuracy (confident level and accuracy).</p> <p>b) Explain how the assessment of standing stock was developed and provide the raw data to DOE.</p>	CAR	<input checked="" type="checkbox"/>
AR-AM0004_ver3, section II.5 (Estimation of baseline net GHG removals by sinks)				

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
Is the baseline net GHG removal set zero where a. no growing trees or woody perennials exist and b. where no trees / perennials are expected to grow, or c. where no trees / perennials will reach the forest threshold due to ongoing slash and burn	2, 6, 7, 8	No growing trees or woody perennials exist, are expected to grow and they are not expected to reach the threshold of forest due to ongoing cutting and burning cycle. The baseline net GHG removal is considered zero.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Where these conditions are not applicable, is the baseline net GHG removal considered for above and below ground biomass? (formula 2)	2	n/a		
For estimation of GHG removals due to growth in baseline strata, is the formula included to the PDD and correctly applied? (formula 3)	2	n/a		
For those strata with few growing trees, is $\Delta C_{B,ikt}$ (sum of the changes in living biomass carbon stocks in the baseline, above- and below-ground; tonnes CO <sub>2</sub> -e.) estimated using one of following two methods (increment data vs. stock data): • Method 1: Carbon gain-loss method • Method 2: stock change method	2	n/a		
Has the corresponding formula been applied correctly, are used values in line with onsite conditions and are they clearly sustained / referenced? (formulae 4 ff)	2	n/a		
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 species) and Rj (root to shot ratio): Have values been chosen with priority from higher to lower order as follows: a) Existing local and species specific. b) National and species specific (e.g. from national GHG inventory). c) Species specific from neighboring countries with similar condi-	2	n/a		

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
tions. Sometimes c) might be preferable to b); this case shall be substantiated in the PDD. d) Globally species specific (e.g. GPG-LULUCF). <i>If none of the above is applicable data of "similar species" values can be used following this order.</i>				
If data from global or national databases has been used, have values been confirmed through local data from literature or inventory?	2	n/a		
<b>C.8 Completion of the baseline study</b>				
Have the date of completion and the name of the person (or entity) determining the baseline been specified?	2	<p>The baseline study was elaborated in September 2007 by: Mr. M.Satyanarayana, Mr. Sunil Bhargava, Mr. Dilip Kumar Saho from JK Paper Ltd. Ms Saima Qadir and Mr. Rama Chandra Reddy as World Bank reviewers, as well as Prof. N.H. Ravindranath, The baseline study was conducted as a part of the PRA. The biomass was collected in the project area</p> <p><b><u>Clarification Request 14.</u></b> Clarify the start of the baseline study which started in 2005</p>	CR	<input checked="" type="checkbox"/>
<b>D. Estimation of ex ante Actual Net Removals, Leakage* and Net Anthropogenic Removals</b>				
<b>D.1 Estimation of ex ante actual net removals</b>				
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, 25	<p>For the calculation of ex ante actual net removals TARAM (v1.3) (Tool for Afforestation and Reforestation Approved Methodologies) was used.</p> <p><b><u>Clarification Request 15.</u></b> For baseline stratum in section C.5.1. Step 5, the approach "no woody perennials exist" was chosen. In the calculation of the baseline stratum 1 (TARAM) the approach "growing trees and woody perennials exist" was chosen. Clarify the differences and</p>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		the meaning of it on the baseline net GHG removal calculation. Adapt the calculations according to the changes in area ( <b>see CARs in section A</b> )		
<i>AR-AM0004_ver3, section II.1 (boundary)</i>				
Are all gases / emissions of other sources considered that are included to the boundary definition?	2, 25	No burning of biomass will be practiced. The emission from fertilizer, removal of herbaceous vegetation and transportation are insignificant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>AR-AM0004_ver3, section II.7</i>				
<i>Estimation of actual changes in living biomass carbon stocks in the project scenario (section II.7.1)</i>	2, 25, 26, 43, 51, 52	<b>Clarification Request 16.</b> a) Provide references to growth data for Eucalypt clones, seed and Casuarina b) Explain in the PDD why the tree growth in TARAM is zero in the first year after harvesting and then increases in the subsequent year more than in the first year of planting	CR	<input checked="" type="checkbox"/>
Has the formula for the calculation of actual changes in living biomass stocks been applied correctly?	2, 25	The formulas are not provided. <b>Corrective Action Request No 12.</b> Provide all main calculation in the PDD, as required in the methodology.	CAR	<input checked="" type="checkbox"/>
a) Treatment of pre-existing non-tree and tree vegetation: Is it estimated pre-existing carbon stock in living biomass significant (>2% of actual net removals)? If yes, are follow up calculations carried out accordingly? (Compare. section 7.1.)	2, 25	No calculations are presented in the PDD. <b>Clarification Request 17.</b> Identify and clarify in the PDD the treatment of pre-existing non-tree and tree vegetation	CR	<input checked="" type="checkbox"/>
b) Treatment of trees Is the formula provided by the methodology (for baseline estimates) applied correctly, while taking into account the following differences: <ul style="list-style-type: none"><li>Harvesting and mortality are taken into account</li></ul>	2, 25	The formula is not provided. See CAR above		



CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
<ul style="list-style-type: none"> <li>Baseline strata differ</li> <li>Stand models differ</li> </ul> <p>Is the calculation carried out according to A) the carbon gain-loss or B) the stock change method, and is all input data clearly sustained and referenced? (formulae 16-22 of methodology)</p>				
<i>Estimation of GHGe (section II.7.2)</i>				
Is the increase of GHG <sub>emissions</sub> (GHG <sub>E</sub> ) estimated according to methodology implications and is sustained and references input data used?	2, 25	GHG emissions are not relevant in the project and are and therefore excluded.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Estimation of E<sub>FuelBurn</sub> (GHG emissions from burning of fossil fuels):</p> <p>Have the emissions from fuel burn been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values?</p>	2	See above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Estimation of E<sub>BiomassBurn</sub> (GHG emissions from biomass burning):</p> <p>Is slash and burn as part of site preparation applied and if yes, have emissions been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values?</p>	2	See above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has all data been provided relevant for ex-ante estimation? Has data provision been cross-checked with section II.11 of AR-AM0004	2, 25	<p><b><u>Corrective Action Request No 13.</u></b></p> <p>Provide reference and include it in the PDD and provide it to DOE to wood density, BEF, root-shoot ratio. and for carbon fraction</p>	CAR	<input checked="" type="checkbox"/>
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 and adequately defined?	2, 8, 14, 15, 42	<p>Leakage is considered negligible in the PDD, as there is no displacement of pre-project activities expected.</p> <p><b><u>Clarification Request 18.</u></b></p> <p>Include reference to tax records as evidence for leakage.</p>	CR	<input checked="" type="checkbox"/>
AR-AM0004_ver3, section II.8				

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
<p>Have the emissions from <math>LK_{ActivityDisplacement}</math> been estimated adequately and in line with the methodology requirements and has sufficient evidence provided on input values for the following calculations?</p> <ul style="list-style-type: none"> <li>- Leakage due to conversion of lands with <ul style="list-style-type: none"> <li>a) conversion of grazing and</li> <li>b) conversion of cropland</li> </ul> </li> <li>- Leakage due to displacement of fuelwood collection</li> </ul>	2, 5, 8, 14, 15, 23, 42, 56	<p>Leakage is considered negligible in the PDD, as there is no displacement of pre-project activities expected.</p> <p>a)</p> <p>The analysis of the project participants found that the project area is not often used for grazing (See PRA exercise and questionnaire). In the baseline study an Average pre-project number of animals was determined to be 1943 animal equivalent units (AEU). Considering the daily biomass intake of 7.5 kg/day*AEU, a total biomass of 5319 t dm would be required by year in the project area.</p> <p>As per cited studies, the fodder production in the project land is expected to be 4.5-5.5 t dm/year*ha, which equals to a total biomass production of 7,231 – 8,838 t dm per year in the project area. Hence, the annual fodder production of the project area under the project scenario is expected to be sufficient to sustain the number of animals. As per methodology formula 36: <math>Na_{BL} &lt; Na_{AR,t}</math>, hence <math>L_{conv-graz} = 0</math></p> <p>Respective calculations are presented in section E.5 of the PDD. Input parameters regarding AEU in the pre-project scenario are presented in the PRA report.</p> <p>b)</p> <p>No displacement of crop land is expected. This was confirmed in the PRA exercise carried out by the PPs, and confirmed during interviews with farmers during the onsite visit of the audit team.</p> <p>Further, if displacement would occur, it would be shifted to lands in the vicinity which also belong to the communities and have similar characteristics as the project area with insignificant amounts of baseline carbon stocks. As per methodology case one <math>CS_{AD} &lt; CS_B</math> would then be applicable.</p> <p>Leakage due to <u>fuelwood collection</u> is also not expected, as more fuelwood is expected to be available under the project condition than under the baseline scenario (as the baseline consists hardly of any woody vegetation). Therefore <math>FG_{BL} &gt; FG_{AR,t}</math>, thus this source of leakage is 0.</p>	CR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
Estimation of $LK_{fencing}$ - Carbon stock decreases caused by the increased use of wood posts for fencing: Have the emissions from $LK_{fencing}$ been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values?	2	No fencing is foreseen in the project design, further fencing is considered not significant by the EB 44.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has all relevant data for leakage estimation been collected and archived?	2	Yes, see comment above. No leakage is expected to occur in the project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E. Monitoring Plan</b>				
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? (AR-AM0004_ver3, section III, 1.2; section III, 1.3)	2	The data to be collected for the monitoring of forest establishment and management are listed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In the collection of data for the monitoring of the project boundary, forest establishment or of forest management, do any measurements not follow typical forest mensuration practices and if so have they been adequately described?	2	The monitoring of the listed parameter follows the forest mensuration practices.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2 Sampling design and stratification				
AR-AM0004_ver3 Section III.2				
Have the conditions for ex-post strata update (within in GIS data base) been included to the PDD / Monitoring Plan? (section III.2.1)	2, 33	The ex-post stratification will be conducted after the first monitoring event. <b><u>Corrective Action Request No 14.</u></b> The conditions and parameters for ex-post stratification of the project area shall be included in the PDD.	CAR	<input checked="" type="checkbox"/>
Is the sampling framework, including sample size, plot size, plot shape, and plot location specified in the PDD? (section III.2.2)	2, 19	The plot size of 400m <sup>2</sup> (20x20) are located systematically with a random start. The GPS position of the plots and other relevant data will be collected. The sampling size was calculated to meet the error of +/-10% at the confidence of 95%. <b><u>Corrective Action Request No 15.</u></b>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		a) Revise the sampling calculations, ensure consistency with section C (24 strata) b) Ensure consistency of Winrock tool with methodology. Calculate sample per strata and update table E.2		
Is the sample size / no. of permanent plots and their allocation among strata calculated according to methodology requirements?	2, 19	The sample size/no of permanent plots and their allocation were calculated according to Wenger.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is the sample plot size calculated according to methodology requirements?	2, 19	The sample plot size of 400m <sup>2</sup> was chosen. This is in accordance with the range given in the methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Does the PDD/Monitoring plan include in line with the methodology indications on <ul style="list-style-type: none"> <li>- plot localizing,</li> <li>- monitoring frequency</li> <li>- indications on measurements and estimation of carbon stock changes over time in plots? (<i>omission of baseline trees and non tree biomass</i>)</li> <li>- monitoring of GHGe by sources increased as a result of the project activity?</li> </ul>	2	The plots will be located systematically with random start. The monitoring frequency, indication on measurements and estimation of carbon stock change over the time and the monitoring of GHG emissions by sources are not defined yet.  Sample plot size is strata specific, 9x9 for small plots, 14x 14 for large plots  <b><u>Corrective Action Request No 16.</u></b> a) Provide input data to for the actual calculation of the sample plots to the PDD b) Include the indications of the required parameter in this section of the PDD.	CAR	<input checked="" type="checkbox"/>
E.3 Monitoring of the baseline net removals				
Is monitoring of the baseline net removals required by the selected methodology? If yes, <ul style="list-style-type: none"> <li>▪ has the application of the procedure for selection of sample plots been adequately defined and has all data to be collected or used been listed?</li> <li>▪ has the application of the procedure for selection of sample plots been adequately defined and has all data to be collected or used been listed?</li> </ul>	2	As per the methodology (AR-AM0004, ver. 3), the baseline net GHG removals by sinks do not need to be monitored.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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? (AR-AM0004_ver3, section III.5 and table in III.6)	2	The data to be collected are partially listed in the tab. E.4.1.  <b><u>Corrective Action Request No 17.</u></b> Ensure that all parameters of the methodology are included or it is	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		explained why the respective parameter can be neglected		
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? Consider: - estimation of fuel burn - estimation of biomass burn (slash and burn)	2	In the table E.4.2 data to be collected in order to monitor GHG emissions by the sources are listed. The estimation of fuel burn are not included as it can be neglected as per EB decision. No biomass burn is expected in the project. However the monitoring parameter are listed in the PDD section E.4.2	☑	☑
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, 27	An electronic spreadsheet formats are going to be used. JKPL has developed a planting manual for the new staff which contains a brief explanation of the measurement techniques. The staff is also trained when joining the company on typical forest mensuration	☑	☑
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 adequately defined?	2	Leakage from fencing, fuel wood collection and the displacement of grazing is not expected as discussed in section D.2. Nevertheless leakage is monitored, to confirm this finding ex-post. All parameters as defined in the methodology have been included in the monitoring plan of the PDD.	☑	☑
Are the procedures for measurements for the monitoring of leakage clearly defined and do they follow typical forest mensuration practices?	2	All parameters as defined in the methodology have been included in the monitoring plan of the PDD.	☑	☑
E.5.2 Have procedures for the periodic review of the implementation of activities and measures to minimize leakage been adequately defined?	2	All parameters as defined in the methodology have been included in the monitoring plan of the PDD.	☑	☑
E.6 QA/QC procedures undertaken for data monitored				
Have the SOPs and quality control/quality assurance (QA/QC) procedures applied been adequately described according to the methodology requirements? (AR-AM0004, section III, 11.2)	2, 27, 28, 29	JKP is ISO 9001 (2000) certified and will apply for renew the certification on 2009. The SOP and QC/QA procedures are listed. SOPs for all relevant corporation activities are included into that list. There are SOPs for diameter and height measurement, and for data management	CAR	☑

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p><b><u>Corrective Action Request No 18.</u></b></p> <p>a) Include the information currently presented in E.1.2 to section E.6</p> <p>b) Include QA/QC for data monitoring in to the PDD section 6.</p> <p>c) Explain the process of monitoring and the relevant SOPs</p> <p>d) Include SOP for each step of the measurements, as required</p>		
Have QA/QC procedures been defined appropriately and are explanations of procedures (including their absence) reasonable?	2	<p>The QA/QC procedures are placed in the annex.4.</p> <p>QA procedures of JK Paper are followed</p> <p><b>See CAR above.</b></p>	CAR	<input checked="" type="checkbox"/>
AR-AM0004_ver3 (section II.10)				
<p>In regard to uncertainties, has the assessment followed guidance provided by IPCC 2000 and GPG-LULUCF (compare Tier 1 / Tier 2 of GPG)?</p> <p>Does the assessment include all relevant calculations (ex-ante, monitoring) and coefficients used?</p>	2	<p><b>See CAR above.</b></p>	CAR	<input checked="" type="checkbox"/>
AR-AM0004_ver3 (section III.11.2)				
<p>Have Standard Operating Procedures been defined for each step of the field measurements (e.g according to BEF or allometric equations method)?</p> <p>Do they include field team training, test plots, re-check of plots, documentations of steps through time, training of new personnel? (section III.11.2.1)</p>	2, 27, 28, 29	<p>The SOP are mentioned in the annex 4, but not described.</p> <p>Separate documents were provided by the PP to the DOE</p> <p><b>See CAR above.</b></p>	CAR	<input checked="" type="checkbox"/>
Have procedures for field data verification been defined and do they comply with methodology requirements (10-20% of randomly selected plots, error <5 % accepted, overall measurement error shall be defined) (section III 11.2.2)	2	<p>The procedures for field data verification are defined, but the amount of re-measurement and the error are not given.</p> <p><b><u>Corrective Action Request No 19.</u></b></p> <p>Explain the procedures for field data verification and define the error to be considered acceptable.</p>	CAR	<input checked="" type="checkbox"/>
Are procedures defined for verification of data entry and analysis in line with methodology requirements?	2	<p>The procedures for verification of data entry and analysis were defined.</p> <p><b><u>Corrective Action Request No 20.</u></b></p>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		Provide procedures for verification of data entry and analysis as required in the methodology section III, 11.2.3.		
Are procedures defined for data maintenance and archiving in line with monitoring requirements?	2	The copy of the procedures from the methodology (section III, 11.2.4) was included in to the annex 4.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.7 Operational and management structure of project operator</b>				
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	The operation and management structure was defined. JKPL will be responsible for the monitoring function. They will also provide technical support. VCCSL will provide technical consultation and training. Also an expert team will be established.  <b><u>Clarification Request 19.</u></b> Include organizational chart (organigram) in the PDD.	CR	<input checked="" type="checkbox"/>
<b>E.8 Person applying monitoring plan</b>				
Has the person or entity applying the monitoring plan been named, are they listed as a project participant and has contact information been provided?	2	The monitoring plan was applied by JKPL.  <b><u>Clarification Request 20.</u></b> Provide required contact information.	CR	<input checked="" type="checkbox"/>
<b>F. Environmental Impacts of the Project</b>				
<b>F.1 Documentation of analysis of environmental impacts</b>				
Has an analysis of the environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary been adequately documented?	2, 30, 47	The environmental impacts have been adequately documented. The impact analysed in reference to the project area and to the area outside. Environmental Impact assessment was done for the World Bank by an independent consultant. Afforestation projects in India do not require an EIA  <b><u>Clarification Request 21.</u></b> Include reference to the EIA that was carried out for the project.	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, 30	Risk analysis of: <ul style="list-style-type: none"> <li>fire and pest</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<ul style="list-style-type: none"> <li>• site preparation</li> <li>• pesticide</li> </ul> <p>was conducted. The risk was considered insignificant.</p>		
<b>F.2 Significant negative impacts</b>				
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 supporting information) been provided?	2, 30	No significant negative impact was deducted. Environmental safeguards review has been undertaken and the potential impacts and mitigation measures has been presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.3 Remedial measures to address impacts</b>				
Has a description of the planned monitoring and remedial measures to address significant environmental impacts been adequately defined?	2, 30	Even if the project is not expected to have a negative environmental impact, a substantial Environmental Management Framework (EMF) has been developed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>G. Socio-economic Impacts of the Project</b>				
<b>G.1 Documentation of analysis of socio-economic impacts</b>				
Has an analysis of the socio-economic impacts including impacts outside the project boundary been adequately documented?	2, 14, 30	<p>The socioeconomic situation of the region was analysed. The project was designed to maximize the benefit for the poor rural society. For this purpose the participatory rural appraisal (PRA) method was conducted.</p> <p>Document covers 17 villages, but a PRAs were conducted in all villages by JKP officers</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 fuelwood and other forest products?	2, 14, 30	<p>The socioeconomic information about the local communities and indigenous people has been provided.</p> <p>Positive impacts like:</p> <ul style="list-style-type: none"> <li>• improvement of quality of life</li> <li>• rise the productivity of degraded land</li> <li>• creation of employment in nursery, plantations</li> <li>• provide wood for the local industry</li> <li>• fuel wood supply</li> </ul>	CAR	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		<p>has been analysed.</p> <p>Potential socio-economic risks were analysed and countermeasures were undertaken.</p> <p><b><u>Corrective Action Request No 21.</u></b></p> <p>a) Clarify how the overall number of man-days was derived in the table G.1.4. It was indicated that 100,000 seedlings require 400 man-days nursery and 600 man-days per planting per hectare, harvesting 200 man-days per ha.</p> <p>b) Clarify the differences between tables in G.1.3 and G.1.4.</p> <p>c) Update the table G.1.4 according to the updated overall area</p>		
<b>G.2 Significant negative impacts</b>				
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 host Party (including conclusions and references to supporting information) been provided?	2, 14, 30	<p>No negative impacts were pointed out in the PRA</p> <p><b><u>Clarification Request 22.</u></b></p> <p>Amend the section clarifying negative impacts on socio-economic aspects.</p>	CAR	<input checked="" type="checkbox"/>
<b>G.3 Remedial measures to address impacts</b>				
Has an adequate description of the planned monitoring and remedial measures to address significant socio-economic impacts been provided?	2, 14, 30	No negative impacts were pointed out in the PRA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>H. Stakeholder Comments</b>				
<b>H.1 Description of how stakeholder comments have been invited and compiled</b>				
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, 14, 30	<p>The stakeholders were divided in to primary and secondary stakeholder. For the invitation of the primary stakeholders comments the participatory rural appraisal (PRA) was used.</p> <p>A leaflet with the project objectives, benefits, risk, modalities and procedures was distributed to the communities.</p> <p>In each village a meeting with the farmers were held.</p> <p>Questionnaires were developed distributed, collected and ana-</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	COMMENTS	Draft Concl	Final Concl
		lysed. Interviews were held. Also data from secondary stakeholder, local Forest Department and Government were collected.		
H.2 Comments received				
Have stakeholders who made comments been identified and has a summary of the comments been provided?	2, 14, 30, 31, 32	Summary of the stakeholder comments has been presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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	The comments received were fully taken in to account and presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Annexes</b>				
Annex 1 : Contact information on project participants				
Is contact information on participants of the project complete?	2	Contact information on participants of the project 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	Statement "There is no public funding involved in the project" is provided. See comment on Canadian ODA	<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	Additional baseline information is attached. <b>See C7</b>	<input checked="" type="checkbox"/>	<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	Monitoring plan is attached.	<input checked="" type="checkbox"/>	<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><b><u>Corrective Action Request No 1.</u></b></p> <p>a) Add a unique ID number for each parcel. The ID should refer to each discrete parcel of land and not to the land owner</p> <p>b) Add a map showing all parcels (big and small), including coordinates, northing etc.</p> <p>c) Produce one GIS file containing all parcels (smaller and larger than 2 ha)</p> <p>d) The accuracy of the GPS readings is mentioned as 50 meters in the PDD). Re-check the accuracy; it shall be no more than 10 meters.</p>	A4	<p><u>Response Project Team:</u></p> <p>Revenue records enclosed – Attachment 1a</p> <p>Parcel-wise IDs prepared. File enclosed – Attachment 1a1</p> <p>Map prepared showing all parcels (1882 parcels, including small parcels) with coordinates. File enclosed – Attachment 1b</p> <p>GIS file enclosed – Attachment 1c</p> <p>GPS 72 was used, which has an accuracy of 30 m, therefore the accuracy of the readings is &lt; 15 m (refer to <a href="http://www8.garmin.com/products/gps72/spec.html">http://www8.garmin.com/products/gps72/spec.html</a> for specifications of the model)</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) The ID provided refers to the land owner and not to each discrete parcel (some land owners have several parcels). The unique ID for each eligible parcel remains to be provided.</p> <p>b) Include map(s) showing all parcels in the PDD. (Large map could be divided to include it in the PDD)</p> <p>c) The GIS files (dated 12.07.09) cover an extent of only 1538.45ha (total project area in the PDD is 3,003ha). Produce one GIS file of all parcels based on the GPS measurements of each parcel and corrected with the field measurements. Include the unique ID to each parcel in the GIS database. The calculated area in the GIS must be the same as the area indicated in the PDD.</p> <p>d) The accuracy is described and found to be adequate</p> <p><u>Project Team Response May 2010</u></p> <p>a) Two set of ids have been provided in the table (excel file) vide column A and B with titles “Unique Code assigned by SCIENCE” and “JK_Code”. The code given in the column A is the system generated code (#id) only and it is unique to each polygon i.e parcel of land. The second set of code titled “JK_Code” has been purposely provided to facilitate JK papers limited to</p>	<p>☑</p>

		<p>keep track and link with each parcel of land with their own database and survey sheets. In this code (JK_Code) the ids may not be unique to each parcel. Thus it is clarified that the information asked vide para A is already provided. Thus, unique ID has been assigned to 1708 discrete parcels and the same enclosed as Attachment 14.</p> <p>b) Map showing all the 1708 parcels included as Attachment 15 c) GIS database revised and areas corrected – Attachment 14</p> <p><u>Audit Team June 2010:</u> Updated GIS files have been provided to the audit team, delineating the boundary of the project area. The detailed geographic delineation is not included in the PDD, also information on total area size and total number of plots is not presented in section A.4</p> <p><u>Response July 28 2010:</u> Total area size and no. of plots (Table A.1) and map showing all parcels, included in Section A.4 (Map provided earlier as Attachment 15)</p> <p><u>Audit Team</u> Distribution of the project area and overall area size is included in the PDD. Project area presented in the PDD and in the digital boundary files is consistent (1607.7 ha)</p>	
<p><b><u>Clarification Request 1.</u></b> Give further explanation on endangered species, refer to World Bank Policy and the specific section of the World Bank environmental impact report</p>	A.5	<p><u>Response Project Team:</u> Explanation on endangered species (absence of endangered species) in the project area is included in the PDD. The project is to be taken up only on private lands with clear legal title and any land that is reserved forest, protected forest or wildlife sanctuary or any other forest land is not part of the project activities as has also been stated in the Environment Management Framework (3.4). EMF enclosed as Attachment 2.</p> <p><u>Audit Team 12.08.09:</u> The EMF document describes the ecological conditions as well as the species found in the project area. Based on the description provided in this document (and field visit), it is credible that no endangered species are found in the project area.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 2.</u></b></p>		<p><u>Response Project Team:</u></p>	<input checked="" type="checkbox"/>

Describe the management, thinning, harvesting and re-generation/planting of <i>Casuarina equisetifolia</i> .	A.5.4	Management practices elaborated in the PDD, reference to Figure A.9 (of a mist chamber) has been deleted.  <u>Audit Team 12.08.09:</u> Management practices of <i>Casuarina equisetifolia</i> are described in the PDD. The reference to figure A.9 was deleted	
<b><u>Clarification Request 3.</u></b> Describe in this section of the PDD if leakage is expected in the project scenario.	A.5.6	<u>Response Project Team:</u> Leakage due to displacement of pre-project agricultural crops, grazing and fuel wood collection activities is considered to be insignificant as activities will not be displaced considering that small parcels of lands are planted and in most cases only a portion of holding is planted.  However, some leakage is expected from the project activity due to transportation of the wood from the project sites to the paper mill which is the buyer of the wood. Awareness programmes are being conducted for the participating farmers to minimize the use of fossil fuels which will result in the GHG emissions and they will be encouraged to use common transportation facilities, conventional transport such as bullock carts, use of biofuels etc to reduce the emission levels. It is expected that the above measures will minimize leakage and contribute to optimum utilization of the transportation requirements.  <u>Audit Team 12.08.09:</u> Measures to minimize Potential Leakage are already included to the PDD. Discussion about leakage shall be further described in section D.2. Emissions from transportation do not need to be considered as leakage as per EB decision.	<input checked="" type="checkbox"/>
<b><u>Clarification Request 4.</u></b> Reference the latest version of the tool to demonstrate eligibility.	A.7	<u>Response Project Team:</u> Version 2 of A/R Additionality Tool (EB35, Annex 17)  <u>Audit Team 12.08.09:</u> The Version 01 of the "Procedures to define the eligibility of the land for afforestation and reforestation project activities" is referenced in the PDD.	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No 2.</u></b> a) In addition to the CAR in section A.4.2, ensure that	A.7	<u>Response Project Team:</u> a. All parcels including those smaller than 2 ha have been digitized. Shp file en-	

<p>also the plots smaller than 2 ha are eligible, by assessing the land cover at time of project start and on Dec 1989 from the satellite images for these parcels.</p> <p>b) The parcels of land smaller than 0.05ha must be excluded from the project. Provide an updated table with all parcels included in the project area.</p>	<p>closed – Attachment 1c. Few selected parcel revenue records for parcels &lt; 2 ha enclosed as an example (Attachment 1a), If needed, revenue records of all parcels are available and can be provided. While the eligibility of all the parcels is confirmed, the development of the shp file is a problem and may take quite some time to complete. Therefore a conscious decision has been taken to eliminate these parcels (209 parcels, accounting for 427 ha) and carbon calculations revised accordingly.</p> <p>b. The parcels of land smaller than 0.05 ha have been excluded from the project. Updated table with only parcels included in the project area enclosed – Attachment 1a1</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) Explain in the PDD how the eligibility of plots smaller than 2ha was assessed. Explain in which sense revenue records demonstrate that there was no forest at time of project start and on Dec 1989.</p> <p>b) Besides the comments in CAR 1, the GIS provided contains 171 parcels that are below the forest definition of India (0.05 ha). All parcels below the forest definition of India must be excluded.</p> <p><u>Project Team Response May 2010</u></p> <p>a) Eligibility of plots smaller than 2ha was assessed using revenue records. The revenue records categorically state the status of land for a given time period and these records are available for all parcels &lt;2ha. The information from PRA is combined with the data and information from revenue records on the land use of parcels &lt;2ha to demonstrate that there was no forest between December 1989 and the project start date. Attachment 1a during the last round provides few examples of information based on revenue records. If needed, records for all parcels &lt;2ha could be provided for verification. The information covered by the PRA has also been presented earlier. Therefore, evidence from PRA and revenue records is in compliance with The AR eligibility tool Version 01, "Procedures to define the eligibility of land for afforestation and reforestation project activities" in demonstrating the absence of forest between December 1989 and the project.</p> <p>b) All parcels less than 0.05 ha, not conferring to forest definition have been eliminated and the new area of the project is 1607.72 ha.</p> <p><u>Audit Team June 2010:</u></p>	<p>☑</p>
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		<p>a) Revenue records were used to determine the eligibility of plots smaller than 2 ha.</p> <p>b) Parcels smaller than 0.05 ha were excluded from the project.</p> <p>Different figures for the overall area and number of parcels are presented in the GIS files and the PDD.</p> <p><u>Response July 28 2010:</u> Discrepancies in PDD have been corrected. GIS parcel codes are also showing the same number of parcels</p> <p><u>Audit Team</u> The overall project area of 1607.7 ha is confirmed, all parcels are included in the GIS files. All parcels are larger than 0.05 ha and thus fulfill the requirements of minimum area according to the India CDM forest definition</p>	
<p><b><u>Corrective Action Request No 3.</u></b></p> <p>Adapt the figures according to CARs in section C and D.</p>	A.9	<p><u>Response Project Team:</u> Figures adapted in accordance with change in area. TARAM model has incorporated the changes in area and other figures.</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) To be revised after consistency of the area is verified according to open CARs above. According to the TARAM, the total net GHG removals is 277,065 tCO<sub>2</sub>e and an annual average of 9,235.5 tCO<sub>2</sub>e .</p> <p>b) A typo in table A.9 indicates 2,77,065 tCO<sub>2</sub>e. Make sure to use comas (,) for thousands and dots (.) for decimals in all tables.</p> <p><u>Project Team Response May 2010</u></p> <ul style="list-style-type: none"> <li>- TARAM revised with updated areas and the total net GHG removals is 146,888 tCO<sub>2</sub>-e with an annual average of 4896.3 tCO<sub>2</sub>-e/yr</li> <li>- Numbers checked for any errors in use of dots instead of commas</li> </ul> <p><u>Audit Team June 2010:</u> The calculations were updated appropriately.</p>	<input checked="" type="checkbox"/>

<p><b><u>Corrective Action Request No 4.</u></b> Provide document from Canada that no ODA is included</p>	A.10	<p><u>Response Project Team:</u> Copy of the documentation from Canada on the non-diversion of ODA to be provided to DOE (Attachment 3)</p> <p><u>Audit Team 12.08.09:</u> Document not found in the attachments, please (re) send to the DOE.</p> <p><u>Project Team Response May 2010</u> Submitted</p> <p><u>Audit Team June 2010:</u> No such document was submitted to the DOE with the replies in May 2010.</p> <p><u>Response July 28 2010:</u> Letter from Canada on non-diversion of ODA for BioCF projects is attached.</p> <p><u>Audit Team</u> Letter submitted, request closed</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 5.</u></b> Modify the starting of the project according to the start of the planting activity. Provide evidence (document) for the exact starting of the project.</p>	B.1	<p><u>Response Project Team:</u> Starting changed in the PDD and evidence provided in Attachment 4</p> <p><u>Audit Team 12.08.09:</u> Document regarding the delivery of saplings to a farmer is provided as evidence showing the starting date of 25.06.04</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 5.</u></b> Clarify and include in PDD how to avoid of coincidence of peaks in carbon stocks and verification, according to CDM VVM (paragraph 151).</p>	B.3	<p><u>Response Project Team:</u> The net GHG removals by sinks are based on the inventory data of plantations within the project area and they reflect average volume of standing timber on the farmer land parcels. The data also reflects individual farmer circumstances under which thinning and harvesting are proposed and implemented.  Farmers have different time preferences for thinning and harvesting and these are spread over the crediting period. The thinning and harvesting are taken into account in the calculations of cumulative GHG removals by sinks. The TARAM calculations</p>	<input checked="" type="checkbox"/>

		<p>also reflect the information on thinning and harvesting in the calculations of cumulative GHG removals by sinks. Therefore, the management practices of farmers do not allow the peaks of carbon stocks to coincide with verification schedules. This justification has been incorporated in Section A.8. Approach for addressing non-permanence.</p> <p><u>Audit Team 12.08.09:</u> A chart showing the peaks in carbon stocks and verification periods found in TA-RAM excel spreadsheets shows that no coincidence of peaks and verification may occur.</p>	
<p><b><u>Clarification Request 6.</u></b> Provide evidence covering all parcels of land subject to further degradation or will remain low in a carbon steady state in absence of the present project activity. (see also CR 7)</p>	C.2	<p><u>Response Project Team:</u> Lands to be afforested within the project boundary are severely degraded prior to the start of the project activity and comply with the vegetation indicators (tree crown cover and height) below thresholds for defining forest, as communicated by the DNA consistent with the decision aa/CP.7 and 19/CP.9. The satellite imagery analysis of two time period, i.e., 1990 and 2008 indicate that the degraded lands have remained as degraded throughout. Further, the project has undertaken a detailed land degradation including soil degradation analysis in different parcel areas as part of Environmental Safeguard Measures required under the World Bank Guidelines (Attachment 2). This clearly indicates not only existing land degradation status but also the status quo would continue in the absence of access to irrigation. This is substantiated by the fact that the net growth in irrigation over the past decade in the project districts is only 2%.</p> <p>Detailed analysis of land and soil degradation and soil analysis is outlined in Section 3.3.2.1.2 and 3.3.2.1.3, starting from pg. 24 – Attachment 2 – EMF-as part of the world Bank safe guard measures for project eligibility.</p> <p><u>Audit Team 12.08.09:</u> The EMF developed for the WB describes the degradation process of the project area. Maps of soil degradation were also provided.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 7.</u></b> Provide the soil loss tolerance limit covering all project area (all parcels) and include the information in the PDD.</p>	C.2	<p><u>Response Project Team:</u> Soil map of the project area is enclosed – Attachment 5 Soil tolerance limits of three districts of Orissa have also been obtained and being sent separately in a CD -</p>	<input checked="" type="checkbox"/>

		<p><u>Audit Team 12.08.09:</u></p> <ul style="list-style-type: none"> <li>a) Provide the full reference to the soil degradation maps and indicate them in the PDD.</li> <li>b) For all the applicability criteria a justification must be provided and sustained with evidence.</li> </ul> <p><u>Project Team Response May 2010</u></p> <ul style="list-style-type: none"> <li>a) Reference to soil degradation maps provided as footnote in the PDD. <b>DARE/ICAR ANNUAL REPORT 2006–2007</b>, Report enclosed for reference</li> <li>b) Justification provided for all applicability criteria (refer to Section C.2 for details)</li> </ul> <p><u>Audit Team June 2010:</u></p> <p>No report regarding soil degradation was submitted to the audit team.</p> <p><u>Response July 28 2010:</u></p> <p>The report can be downloaded from (<a href="http://www.icar.org.uk/download">www.icar.org.uk/download</a>) or (<a href="http://www.icar.org.in/en/node/340">http://www.icar.org.in/en/node/340</a>)</p> <p><u>Audit Team</u></p> <p>The respective evidence is provided to the audit team. Request closed.</p>	
<p><b><u>Clarification Request 8.</u></b></p> <p>Explain why ploughing does not increase the GHG emission</p>	C.2	<p><u>Response Project Team:</u></p> <p>On most land parcels, farmers practice selective site preparation for planting. In situations where plough is used, the small farmers mostly use mostly traditional plough is used to suppress weeds within the rows of proposed planting area. Such disturbance does not significantly disturb the soil. Therefore, there is no significant influence of plough that could increase GHG emissions.</p> <p><u>Audit Team 12.08.09:</u></p> <p>Considering the degraded condition of the soils, GHG emissions from site preparation are not expected.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 9.</u></b></p> <p>Refer to EB decision 44, mentioning that emissions from nitrogen fixing species are not considered relevant</p>	C.2	<p><u>Response Project Team:</u></p> <p>Reference to EB44 decision included in section C.2 of the PDD.</p>	<input checked="" type="checkbox"/>

anymore.		<u>Audit Team 12.08.09:</u> Reference to EB 44 included to the PDD	
<p><b><u>Clarification Request 10.</u></b></p> <p>Explain in the PDD that other reforestation programmes will not occur on the land subject to the project activity (e.g. Coastal Reforestation Program, afforestation by the forest service and other private companies). <b>See also CAR in C6</b></p>	C.2	<p><u>Response Project Team:</u></p> <p>Clarification on the non-occurrence of public or private-agency led reforestation programs is presented in Section C.2</p> <p><u>Audit Team 12.08.09:</u></p> <p>A description regarding other planned reforestation activities in the project area is provided in the PDD. Further discussion regarding this issue is found in sections C.5 (identification of baseline) and C.6 (additionality).</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 6.</u></b></p> <p>a) Define clearly the three steps of the stratification as required in the applied methodology.</p> <p>b) Describe the sources used for the stratification and provide further explanation in the PDD for each of the sub steps (a - e)</p> <p>c) As per methodology required, management details of the planting and maintaining has to be described in the PDD.</p>	C.4	<p><u>Response Project Team:</u></p> <p>(a) The three steps of stratification outlined in the methodology are used in assessing the strata.</p> <p>1. As per the guidance of the step 1 of the methodology, conditions prior to the implementation of the project are considered</p> <p>2. As per the step 2, project specific data on the proposed stand models and associated information is taken into account in defining the strata.</p> <p>3. Project stratification is conducted by taking into account the pre-existing conditions relevant to the baseline as well as data on the project stand models.</p> <p>(b) Data sources: Data used for stratification is based on field visits, official data on land use, and survey data collected from farmers to reflect the factors influencing the project land parcels.</p> <p>Step 1: stratification of the project area is as per the pre-existing conditions;</p> <p>(a) The factors such as land use, pre-existing vegetation, soil, and climate that influence land use and evolution of carbon stocks are taken onto account.</p> <p>(b) Information on land parcels is collected from revenue records, soil and vegetation maps, and information on land eligibility on large parcels was assessed using remote sensing images.</p> <p>(c) Data collected from surveys and field studies was used to assess the distribution</p>	<input checked="" type="checkbox"/>

		<p>of livestock prior to the project implementation.</p> <p>(d) Surveys of participating farmer households on crop choice and data on crop production from local official administrative agencies such as revenue department and development agencies at the block level are used to assess the cropping systems followed in the project area.</p> <p>(e) Information on the above physical variables (soil characteristics, slope, rainfall etc.) and land use variables (holding size, tenure, cropping etc.) was used to conduct preliminary stratification. Two preliminary strata corresponding to the three districts each in the states of Orissa and Andhra Pradesh have been identified. The two sets of districts – 3 districts in Orissa and Andhra Pradesh represent distinct physical features. Districts of Andhra Pradesh represent sandy soils whereas districts of Orissa represent clay and laterite soil types. Wheer represents sandy soils</p> <p>Step 2 Stratification of the project area.</p> <p>(a) In addition to data on preliminary stratification, three stand models – planting material based on Eucalyptus clone, Eucalyptus seed route and Casuarina have been identified.</p> <p>(b) The growth assumptions of the three above species, their schedule of planting to identify the age classes, and management practices such as thinning and harvest intensity are taken into account and area proposed for planting are considered</p> <p>(c) For the purpose of project stratification, the soil and rainfall characteristics of the two regions (Orissa and Andhra Pradesh) and the three stand models (Eucalyptus clone, Eucalyptus seed route and Casuarina) that are likely to reflect in the carbon stock changes of net actual GHG removals are taken into account.</p> <p>Step 3: Final ex ante stratification</p> <p>(a) The land delineated parcels are grouped into respective strata as per the procedure of Step 2. Checks of the project boundary area have been conducted to ensure that the area of land parcels within a stratum, the sum of areas of the project strata confirms to the area of overall project boundary.</p> <p>(b) The project strata are based on geo-referenced GIS database, and procedures to assess the ex post monitoring of project boundary are adopted.</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) The stepwise approach is clearly indicated in the PDD; however a descrip-</p>	
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		<p>tion of the results of the application of the <i>ex-ante</i> stratification must be included to the PDD (do not copy/paste the procedure from the methodology).</p> <p>b) The sources of data used for the stratification shall be referenced and included to the PDD.</p> <p>c) In Step 2 the management details as required by the methodology must be further described.</p> <p><u>Project Team Response May 2010</u></p> <p>a. The results of the application of the <i>ex-ante</i> stratification included in the PDD and revised accordingly</p> <p>b. Sources of data used for stratification referenced and included in PDD</p> <p>c. Management details required by the methodology further described in Step 2 of stratification, Section C.4</p> <p><u>Audit Team June 2010:</u></p> <p>a) Under step 1 sub-steps f-h is missing. Under step 2, sub-steps b and c are missing. In step 3, sub-steps a and b are not addressed.</p> <p>b) Sources are included in the PDD</p> <p>c) Management details are provided in the PDD.</p> <p><u>Response July 28 2010:</u></p> <p>a) The sub-steps of step 1, step 2 and step 3 of the <i>ex ante</i> stratification have been addressed in detail. The identification of the strata are made consistent with the information on the strata presented in attachment 14.</p> <p><u>Audit Team</u></p> <p>The stepwise approach from the methodology is followed. Request closed</p>	
<p><b><u>Corrective Action Request No 7.</u></b></p> <p>a) Ensure consistency in the number of strata throughout the PDD. (24 strata were discussed during onsite visit)</p> <p>b) Provide geo-referenced, verifiable data of the stratification and include them in to the PDD, as annex.</p>	C.4	<p><u>Response Project Team:</u></p> <p>The project has adopted five strata taking into account the distribution of the land parcels in two provinces (Andhra Pradesh and Orissa) and three stand models (Eucalyptus clonal, Eucalyptus seed-based and Casuarina).</p> <p><u>Audit Team 12.08.09:</u></p>	<input checked="" type="checkbox"/>



		<p>a) Five strata were defined according to the species and site conditions, this request is closed.</p> <p>b) A geo-referenced, verifiable data of the stratification remains to be provided (i.e. an updated GIS covering all parcels indicating the strata of each parcel).</p> <p><u>Project Team Response May 2010</u> Geo-referenced verifiable data of stratification is provided in Attachment 14</p> <p><u>Audit Team June 2010:</u> As per updated PDD, 12 strata are found in the table under C.4 Step 3. GIS data is provided to the audit team, however the identification of strata is different than the information presented in the PDD.</p> <p><u>Response July 28 2010:</u> Clarified in PDD table C.4.1 under step 3</p> <p><u>Audit Team June 2010:</u> PDD is updated accordingly, request closed.</p>	
<p><b><u>Clarification Request 11.</u></b> Add information on forest area in India (Forest Survey of India) and clarify why the National Forest Policy is not applicable to private land.</p>	C.5	<p><u>Response Project Team:</u> Relevant information included in Section C.5</p> <p><u>Audit Team 12.08.09:</u> It was indicated that the National Forest Policy and the Action Plan addresses only government land and do not focus on private lands of small farmers; however the following evidence may indicate that reforestation with small farmers is enforced by the Forest National Policy, therefore it must be demonstrated if the relevant policies influence the areas of the proposed project considering the following:</p> <p>a) according to a publication by FAO, (<a href="http://www.fao.org/docrep/005/AC772E/ac772e06.htm">http://www.fao.org/docrep/005/AC772E/ac772e06.htm</a>) the National Forest Policy (1988) enforces companies to get their raw material from farm forestry areas, which implies that reforestation on private lands is a need for industries and promoted by the policy (and not only on government land). Discuss this issue in Step 3. Provide the National Forest Policy and the Ac-</p>	<input checked="" type="checkbox"/>

		<p>tion Plan to the DOE as evidence (specifically the section where it is indicated that only government land is considered under the referred policy).</p> <p>b) The Joint Forest Management (1990) promotes establishments of forest plantations between local communities and the Forest Department. This should also be mentioned and clarified how it influences reforestation in the region.</p> <p><u>Project Team Response May 2010</u></p> <p>a) The National Forest Policy is a statement of intent and is a guiding document. It never enforces. The referred FAO publication is only an article written by R.M. Palanna, Conservator of Forests, Kanara Circle, Karnataka and the opinions expressed therein are personal. The National Forest Policy only encourages farmers to raise plantations on farm lands. India being a democracy, the Governments can only formulate programmes for the government lands and cannot enforce anything for the private lands. Private land owners are largely guided by the market mechanisms, resource availability, incentives given, subsidies offered, availability of technology etc. While the farmers with large holdings who have access to knowledge and technology take informed decisions, small and marginal farmers are unable to put their lands to proper use due to many technological, financial and knowledge barriers. No incentives have been provided by the government which can motivate the farmers to practice farm forestry. Through this project, VEDA has tried to reach out to the small and marginal resource poor farmers by convincing them that it would be a viable economic activity because of additional revenue from carbon sequestration. The National Forest Policy and the National Forestry Action Programme can be downloaded at: <a href="http://envfor.nic.in/nfap/">http://envfor.nic.in/nfap/</a> or <a href="http://www.envfor.nic.in/divisions/fp/nfp.pdf">http://www.envfor.nic.in/divisions/fp/nfp.pdf</a>. Section 4.2 may please be referred to in the National Forest Policy.</p> <p>b) The Joint Forest Management programme is implemented only on degraded forest lands and allows partnerships between forest department and local communities. The JFM programme essentially deals with degraded forest lands in the fringes of natural forests. The present A/R CDM project is to be implemented on private lands i.e. land under subsistence agriculture or short-term fallow agricultural lands and therefore beyond the purview of the Joint Forest Management programme.</p> <p><u>Audit Team June 2010:</u></p>	
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		<p>Information on the National Forest Policy is partly included in the PDD; No information on the Joint Forest Management is presented in the PDD.</p> <p><u>Response July 28 2010:</u> Added a paragraph introducing JFM in the PDD and web-link provided</p> <p><u>Audit Team</u> Information on Joint Forest Management is provided in the PDD. Request closed</p>	
<p><b><u>Corrective Action Request No 8.</u></b></p> <p>There is no information in Step 5 in the PDD. Include the corresponding information in this section.</p> <p>The last part in section C.5.1 should be moved to section C.7</p>	C.5	<p><u>Response Project Team:</u> The relevant information is included in step 5 and the last part of section C.5.1 is moved to Section C.7.</p> <p><u>Audit Team 12.08.09:</u> The baseline land use identified is the continuation of the degradation of the lands. The CAR is closed.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 12.</u></b></p> <p>Consider also the activities / option for raw material supply of JKP in the alternative scenario " reforestation as non-CDM activity" (<b><i>See also CAR in step 3</i></b>)</p>	C.6	<p><u>Response Project Team:</u> <i>Alternative - Reforestation to be undertaken by JKPL on purchased or leased agricultural lands not as a CDM project for meeting its raw material supplies is unlikely to occur as JKPL's demand could be met from purchases of wood from the market and therefore cannot be expected to be implemented in the foreseeable future.</i></p> <p><u>Audit Team 12.08.09:</u></p> <ul style="list-style-type: none"> <li>a) The option "<i>Reforestation to be undertaken by JKPL on purchased or leased agricultural lands not as a CDM project for meeting its raw material supplies</i> is considered. However this shall be included in the alternative of implementing the reforestation activity not as a CDM (not as a separate alternative) and then analyzed.</li> <li>b) The outcome of Sub-step 1b should also contain at least the above alternative and then be analyzed in Step 2 (Investment analysis) and/or Step 3 (barrier analysis) and Step 4 (common practice) according to the additionality tool.</li> </ul> <p><u>Project Team Response May 2010</u></p> <ul style="list-style-type: none"> <li>a) The option "Reforestation to be undertaken by JKPL on purchased or leased</li> </ul>	<input checked="" type="checkbox"/>

		<p>agricultural lands not as a CDM project for meeting its raw material supplies” is considered as one of the options under the alternative of implementing reforestation activity as a non-CDM activity and analyzed accordingly (Refer to Section C.4).</p> <p>b) The outcome of Sub-step 1b, includes the options of continuation of status quo as well as reforestation being implemented as a non-CDM activity and goes on to prove in Step 3 as to why reforestation as a non-CDM activity is not a feasible option.</p> <p><u>Audit Team June 2010:</u> The option project activity without CDM finance is included in Step 1. Request closed.</p>	
<p><b><u>Corrective Action Request No 9.</u></b> Sustain each barrier with evidence (and provide it to DOE), or exclude the barrier from the analysis.</p>	C.6	<p><u>Response Project Team:</u> Explanation on the following barriers and along with the relevant evidence is presented in the PDD. (a) Investment barrier (b) Technology barriers (c) Small holding size and low institutional capacity</p> <p><u>Audit Team 12.08.09:</u> Documented evidence sustaining the above mentioned barriers remains to be provided; this must be referenced and included in the PDD (i.e. as footnotes).</p> <p><u>Project Team Response May 2010</u> Documented evidence sustaining the above mentioned barriers provided in the PDD and suitably referenced where needed. Attachment 20 provided as evidence for investment barrier. Attachment 17 provides the details on the predominance of small farm holdings to demonstrate the very low capacity of individual farmers and the corresponding lack of institutional support to organize them.</p> <p><u>Audit Team June 2010:</u> Investment barrier was sustained with evidence for reforestation activities without JKP involvement. However the barrier is not sustained for the land use alternative</p>	<input checked="" type="checkbox"/>

		<p>“reforestation activity of JKP as non-CDM activity”.</p> <p>The respective calculations provided to the DOE are not sufficiently explained and not sustained with evidence. (see comments in CAR 10 and CL 13)</p> <p><u>Response July 28 2010:</u></p> <p>The additionality argument has been explained, in greater detail, to align with the actual evolution of the project.</p> <p><u>Audit Team</u></p> <p>Sufficient evidence is provided that the barriers presented in the PDD prohibit the scenarios presented in the PDD.</p> <p>The barriers for the farmers to implement the project activity are institutional and technological barriers.</p> <p>VCCS and JK Paper Ltd do not have additional income apart from sales of CERs, which mainly cover their transaction costs. Minimum of 60% of the revenues from CDM will be provided to the framer.</p> <p>JK Paper does not have direct financial benefits, as the company will pay a minimum price to the farmers and adopt it to market price. Hence acquiring raw material will be at market price and could be obtained on the open markets alternatively, without having high transaction costs. In the project circumstances the transaction costs for obtaining raw material are high, considering the average parcels size of 1 ha, due to the fact that the farmers are small land holders.</p> <p>In summary the barriers presented in the PDD are sufficiently sustained and the request is closed.</p>	
<p><b><u>Corrective Action Request No 10.</u></b></p> <p>a) Show which land use alternative is hindered by which barrier(s) and identify at least one viable alternative land use scenario.</p> <p>b) Explain why the alternative “reforestation activity as non-CDM” is not viable from JKP point of view; considering the increasing need for raw material from plantations, and the increasing costs in transportation. (<b><i>See also CR in step 1</i></b>)</p>	C.6	<p><u>Response Project Team:</u></p> <p>a) Section C.6 is suitably revised to reflect the DOE feedback.</p> <p>b) JKPL can undertake reforestation activities on agricultural lands that are purchased or leased from farmers. However, it does not have plans to do so as JKPL’s wood demand could be met from the purchases of wood directly from market.</p> <p><u>Audit Team 12.08.09:</u></p> <p>A table showing the land use alternatives is presented, however it must be clearly</p>	<input checked="" type="checkbox"/>

		<p>indicated which barriers prevent the implementation of the “<i>project activity not as a CDM</i>” (including JKPL). If no barriers are identified then an investment analysis must be used to demonstrate the additionality of the proposed CDM project.</p> <p><u>Project Team Response May 2010</u></p> <p>Included a table analyzing the barriers to implementation of alternative land use. Refer to Section C.6</p> <p><u>Audit Team June 2010:</u></p> <p>An overview table is provided in the PDD to show which land use alternative is prevented by which barrier.</p> <p>However the alternative “reforestation activity of JKP &amp; farmers as non-CDM activity” (project activity not registered as CDM project) is not included and it cannot be confirmed that a barrier would prevent this alternative (see also CL 13).</p> <p>High transaction costs for small-scale farmers are presented as a barrier. The respective figures presented in the PDD explaining the costs for obtaining 1000 Mt of wood from large and small-scale farmer are however not further sustained with evidenced. Hence it cannot be confirmed that these figures apply to the project activity and why it acts as a barrier, considering previous afforestation with small farmers.</p> <p><u>Response July 28 2010:</u></p> <p>The additionality section is revised to address the issues with regard to the small farmer participation and common practice referred above. This is further explained to align with the actual evolution of the project.</p> <p><u>Audit Team</u></p> <p>As explained in the CAR above (CAR 9), sufficient evidence is provided that the barriers presented in the PDD prohibit the scenarios presented in the PDD.</p> <p>Concerning the project scenario with JK Paper, as non-CDM project activity:</p> <p>JK Paper Ltd does not have additional income apart from sales of CERs, which mainly cover their transaction costs. Minimum of 80% of the revenues from CDM will be provided to the framer. JK Paper does not have direct financial benefits, as the company will pay a minimum price to the farmers and adopt it to market price. Hence acquiring raw material will be at market price and could be obtained on the</p>	
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		<p>open markets alternatively, without having high transaction costs. In the project circumstances the transaction costs for obtaining raw material are high, considering the average parcels size of 1 ha, due to the fact that the farmers are small land holders.</p> <p>In summary the barriers presented in the PDD are sufficiently sustained and the request is closed.</p>	
<p><b><u>Clarification Request 13.</u></b></p> <p>a) Define the area considered as the “region”, and clarify why afforestation is happening in the region, but not on small and marginal wasteland.</p> <p>b) Provide information on afforestation and provide common praxis analysis, comparison of this project with the earlier reforestation activities, as required in the applied methodology.</p>	C.6	<p><u>Response Project Team:</u></p> <p>The region in the project context refers to the group of three districts covered by the project in Andhra Pradesh and Orissa.</p> <p>There have been very few comparable reforestation initiatives in the region which includes Andhra Pradesh and Orissa. Afforestation/ reforestation is commonly considered as the responsibility of the government and both the federal and provincial governments have formulated programmes and projects to undertake afforestation / reforestation in the degraded forest lands, government waste lands, reserve forests etc. Though the government encourages the tree planting on the farm lands through agroforestry and farm forestry, no financial incentives have been provided which can motivate small land owners to undertake plantation activity. Because of the many barriers mentioned earlier, afforestation is not taking place on small and marginal wastelands.</p> <p>This project is different from earlier reforestation activities in the sense that planting activity is taking place on privately owned degraded lands after removal of investment, technological and market barriers whereas earlier the afforestation / reforestation was limited to govt wastelands and plantations by big farmers particularly absentee landlords.</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) Region is defined and described in the PDD. This request is closed.</p> <p>b) The common practice analysis must be further discussed and sustained with evidence. The following findings indicate that JKPL is already conducting reforestation activities, therefore a clarification of the differences between the proposed project with previous reforestation activities occurring in the project area must be provided and included to the PDD, considering that:</p> <ul style="list-style-type: none"> <li>- According to JK organization website accessed on 03.08.09, (<a href="http://www.jkorg.in/index.php?option=content&amp;task=view&amp;id=145&amp;Itemid=191&amp;parent=174">http://www.jkorg.in/index.php?option=content&amp;task=view&amp;id=145&amp;Itemid=191&amp;parent=174</a>) JKPL has already planted more than 45,000ha over the years. This shows contradictory information from the PDD:</li> </ul>	<input checked="" type="checkbox"/>



		<p><i>"The Company's plantations, driven by in-house research programme, have covered more than 45,000 hectares of land over the years. By providing farmers high quality plant species through the Company's plantation research centre, it is helping the farmers to improve their economic well being. Very large number of farmers in the states of Orissa, Chhattisgarh, West Bengal, Andhra Pradesh, Gujarat and Maharashtra are benefitting from this programme. The plantation with its superior quality plants contribute towards a strong base for high quality raw materials"</i></p> <ul style="list-style-type: none"> <li>- The Indian Paper Manufactures Association (<a href="http://www.ipma.co.in/agro_forestory.asp">http://www.ipma.co.in/agro_forestory.asp</a>, accessed on 03.08.09), from which JKPL is a member, provides the following statement indicating that reforestation activities with marginal farmers are being conducted for decades. Why is the proposed project different?:</li> </ul> <p><i>"...over the last decade, industry led farm/social forestry have brought around 0.25 million hectares under pulp wood plantations, mainly degraded marginal lands of farmers. At the current estimate, wood based segment of the industry uses 80 per cent of the total requirement from farm produced wood...."</i></p> <ul style="list-style-type: none"> <li>- Other paper companies are getting most of their raw material from social forestry wood (<a href="http://www.starpapers.com/starpresentation090605.ppt">www.starpapers.com/starpresentation090605.ppt</a>, accessed on 03.08.09) explain if this is also the case of JKPL. It is clear that farmers cannot develop any reforestation by themselves and the government is not allocating funds to do so, therefore it must be clarified and sustained with evidence where does JKPL gets its raw material and how it is expected to cover their needs in the future since the above findings already indicate that reforestation with farmers has already taken place for years.</li> <li>- As already mentioned before, according to a publication by FAO, the National Forest Policy (1988) enforces companies to get their raw material from farm forestry areas. It is therefore expected that reforestation activities must be conducted by paper industries to cover their needs of raw material, also demonstrated with the above statements (<a href="http://www.fao.org/docrep/005/AC772E/ac772e06.htm">http://www.fao.org/docrep/005/AC772E/ac772e06.htm</a>, accessed on 03.08.09)</li> <li>- During the onsite visit it was discussed that JKPL would also benefit from getting the raw material from the plantations near the paper mill since transportation costs will be reduced as well as considering that raw material from the natural forest in India is depleting and is also regulated/restricted by the National Forest Policy. Therefore it is expected that JKPL will promote reforestation activities in private lands, already evidenced from JK organization website.</li> </ul>	
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		<p>expressed therein are personal. The National Forest Policy only encourages farmers to raise plantations on farm lands. India being a democracy, the Governments can only formulate programmes for the government lands and cannot enforce anything for the private lands. Private land owners are largely guided by the market mechanisms, resource availability, incentives given, subsidies offered, availability of technology etc. While the farmers with large holdings who have access to knowledge and technology take informed decisions, small and marginal farmers are unable to put their lands to proper use due to many technological, financial and knowledge barriers. No incentives have been provided by the government which can motivate the farmers to practice farm forestry. Through this project, VEDA has tried to reach out to the small and marginal resource poor farmers by convincing them that it would be a viable economic activity because of additional revenue from carbon sequestration. The National Forest Policy and the National Forestry Action Programme can be downloaded at: <a href="http://envfor.nic.in/nfap/">http://envfor.nic.in/nfap/</a> or <a href="http://www.envfor.nic.in/divisions/fp/nfp.pdf">http://www.envfor.nic.in/divisions/fp/nfp.pdf</a>. Section 4.2 may please be referred to in the National Forest Policy.</p> <p><u>Audit Team June 2010:</u></p> <p>Attachment 17 does actually not include all parcels, but only 170 ha out of the total project area (1639 ha as per GIS files). The reference to earlier afforestation (attachment 18) include also 334 farmers of 2.5 ha or less (294 farmers of 2 ha or less), which are identified in the PDD as “small farmer”. No evidence was provided that this activity is not considered “common practice” as per AR-CDM additionality tool (identification of “essential differences” and “fundamental and verifiable verifiable changes in circumstances...”).</p> <p>Two paper companies in the vicinity are conducting reforestation projects with farmers. One company (MTPL) is also conducting this activity as a CDM project (under validation, not approved).</p> <p>The other company (Ballarpur Industries Ltd) is conducting the reforestation with farmers without additional finance from CDM.</p> <p>The activity from Ballarpur Industries Ltd is considered to be similar to the ones conducted by MTPL. No “essential distinctions” could be identified in the PDD. Also no “fundamental and verifiable changes in circumstances under which the proposed A/R CDM project activity is implemented” were discussed or identified in the PDD.</p> <p><u>Response July 28 2010:</u></p> <p>The description of project additionality has been elaborated based on its multiple</p>	
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		<p>stakeholders nature (VCCSL, VEDA MACS, JKPL and farmers fulfilling specific roles). The common practice analysis section has been strengthened to explain the key difference between other projects in the region (including the BILT project mentioned above) and this initiative.</p> <p><u>Audit Team</u></p> <p>Similar reforestation activities are carried out by paper companies in the region. However these activities are also made possible through CDM: one activity is a registered CDM project (CDM reference # 2241), the other is currently under validation. A third project (Ballarpur Industries Limited - BILT) is conducting similar activities without carbon finance. As stated in the PDD, the farm forestry project of BILT is however only possible due to public funding.</p> <p>As per AR-CDM additionality tool public funding can be considered as essential difference for the implementation of a project activity (see AR-CDM tool step 2 para 13 first bullet point )</p> <p>The project activity in the set-up as described in the PDD is not considered common practice in the region. The request can be closed.</p>	
<p><b><u>Corrective Action Request No 11.</u></b></p> <p>Provide further information on the baselines survey:</p> <p>a) Explain how the sample plots were selected and discuss the accuracy (confidence level and accuracy).</p> <p>b) Explain how the assessment of standing stock was developed and provide the raw data to DOE.</p>	C.7	<p><u>Response Project Team:</u></p> <p>The baseline land use in the project area was assessed by two methods: a) through questionnaire survey (Questionnaire enclosed as Attachment 6b) and b) through field observation during recording of GPS readings while marking the plot boundary. The project area considered for project activities is predominantly agricultural land abandoned or left fallow.</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) The sample design must be further described in Annex 3, this must consider the sampling size, confidence level, accuracy.</p> <p>b) The calculation procedure of the baseline stock must be explained in the PDD and provided as evidence.</p> <p>Include a table with parameters used for the calculations as requested by the PDD guidelines</p> <p><u>Project Team Response May 2010</u></p> <p>a) Sample design described in Annex 3.</p> <p>b) Calculation procedure provided in the PDD</p>	<input checked="" type="checkbox"/>

		<p><u>Audit Team June 2010:</u> The sample design is further detailed in annex 3. Explanation is provided also in the PDD.</p>	
<p><b><u>Clarification Request 14.</u></b> Clarify the start of the baseline study which started in 2005</p>	C.8	<p><u>Response Project Team:</u> Start of the baseline study is Feb-May 2004</p> <p><u>Audit Team 03.08.09:</u> The date of the baseline study completion was indicated in the PDD</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 15.</u></b> For baseline stratum in section C.5.1. Step 5, the approach “no woody perennials exist” was chosen. In the calculation of the baseline stratum 1 (TARAM) the approach “growing trees and woody perennials exist” was chosen. Clarify the differences and the meaning of it on the baseline net GHG removal calculation. Adapt the calculations according to the changes in area (<b>see CARs in section A</b>)</p>	D.1	<p><u>Response Project Team:</u> Relevant clarification on the non-occurrence of woody perennials in the project strata is provided and necessary correction incorporated into the TARAM (Annex 7).</p> <p><u>Audit Team 12.08.09:</u> It is indicated that no woody perennial exist In the TARAM excel spreadsheet as well as in the baseline study. However, as indicated below in CR 17, “...shrubby growth is removed manually...” Clarify whether shrubs (woody vegetation) were present in the baseline and why it is neglected in calculation. See also comments regarding the baseline study in CAR 11.</p> <p><u>Project Team Response May 2010</u> The A/R CDM project is proposed to be implemented on subsistence agriculture lands which are annually plowed at the beginning of the cropping season and all the weeds are removed on an annual basis. Further, during the cropping season weeding also leads to removal of any shrub/herbaceous material. Thus these subsistence agricultural lands are devoid of any shrubby growth. In this case the grass or herbaceous vegetation if present is removed manually and is referred to as shrubby growth. The undergrowth is insignificant as the lands considered for the A/R CDM are currently either under subsistence agriculture or are short-term fallow lands, as discussed in Annex 3.</p> <p><u>Audit Team June 2010:</u> It was clarified and confirmed that no significant amount of woody perennial are present on the project area, which is also adequately represented in the GHG re-</p>	<input checked="" type="checkbox"/>

		moval calculation spreadsheets.	
<p><b><u>Clarification Request 16.</u></b></p> <p>a) Provide references to growth data for Eucalypt clones, seed and Casuarina</p> <p>b) Explain in the PDD why the tree growth in TARAM is zero in the first year after harvesting and then increases in the subsequent year more than in the first year of planting</p>	D.1	<p><u>Response Project Team:</u></p> <p>a) Growth data on Eucalyptus and Casuarina is presented in Attachment 7. Reference: R&amp;D data centre, JKPL.</p> <p>b) The tree growth in TARAM now accounts for net GHG removals with harvest immediately after the year of rotation i.e., in the 6<sup>th</sup> year for eucalyptus with 5-yr rotation and in the 5<sup>th</sup> year for casuarina with 4-yr rotation.</p> <p><u>Audit Team 12.08.09:</u></p> <p>a) Growth tables from JKPL data were provided in excel spreadsheets b) TARAM was reviewed and shows tree growth for each rotation period for Eucalyptus and Casuarina.</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 12.</u></b></p> <p>Provide all main calculation in the PDD, as required by the methodology.</p>	D.1	<p><u>Response Project Team:</u></p> <p>Section revised in accordance with the methodology.</p> <p><u>Audit Team 12.08.09:</u></p> <p>Calculations were included accordingly.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 17.</u></b></p> <p>Identify and clarify in the PDD the treatment of pre-existing non-tree and tree vegetation</p>	D.1	<p><u>Response Project Team:</u></p> <p>Most of the lands under the project are barren and do not contain any tree growth. The shrubby growth is removed and manual ploughing is done to prepare the land for plantation activity.</p> <p><u>Audit Team 12.08.09:</u></p> <p>As it is indicated that shrubby growth is removed, it must be further clarified whether these woody vegetation is neglected under the baseline scenario. It was previously stated that no woody vegetation is present. See also comments regarding the baseline study in CAR 11.</p> <p><u>Project Team Response May 2010</u></p> <p>The A/R CDM project is proposed to be implemented on subsistence agriculture lands which are annually plowed at the beginning of the cropping season and all the weeds are removed on an annual basis. Further, during the cropping season weed-</p>	<input checked="" type="checkbox"/>

		<p>ing also leads to removal of any shrub/herbaceous material. Thus these subsistence agricultural lands are devoid of any shrubby growth. In this case the grass or herbaceous vegetation if present is removed manually and is referred to as shrubby growth. The undergrowth is insignificant as the lands considered for the A/R CDM are currently either under subsistence agriculture or are short-term fallow lands, as discussed in Annex 3.</p> <p><u>Audit Team June 2010:</u></p> <p>It was clarified and confirmed that no significant amount of woody perennial are present on the project area, which is also adequately represented in the GHG removal calculation spreadsheets.</p> <p>Further, as per EB decision herbaceous vegetation is not considered to be significant.</p>	
<p><b><u>Corrective Action Request No 13.</u></b></p> <p>Provide reference and include it in the PDD and provide it to DOE to wood density, BEF, root-shoot ratio. and for carbon fraction</p>	D.1	<p><u>Project Team:</u></p> <p>The information on wood density, BEF, root-shoot ration and carbon fraction is provided in section D.1</p> <p><u>Audit Team 12.08.09:</u></p> <p>The requested information was included to the PDD. Please provide the reference of the data sources.</p> <p><u>Project Team Response May 2010</u></p> <p>References provided for data sources in Section D.1</p> <p><u>Audit Team June 2010:</u></p> <p>The sources for RS, WD, BEF and CF are all taken from IPCC. No local data was used, however conservative values were chosen. As the factors are also subject to monitoring this is acceptable. Request closed</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 18.</u></b></p> <p>Include reference to tax records as evidence for leakage</p>	D.2	<p><u>Response Project Team:</u></p> <p>Agricultural incomes in India are not taxable. Therefore, DOE query is not relevant for assessing leakage</p>	<input checked="" type="checkbox"/>



		<p><u>Audit Team 12.08.09:</u></p> <p>Evidence to neglect leakage from activity displacement remains to be provided considering the following:</p> <ul style="list-style-type: none"> <li>a) In regard to grazing, further evidence must be provided to neglect this source (i.e from reliable literature, statistics of number of animals, etc), since during the on-site visit, there were no indications on fodder production under the Eucalyptus and Casuarina plantations as stated in the PDD.</li> <li>b) The statement “....<i>leakage due to displacement of fuelwood collection and increased use of fence posts is also considered insignificant as it is less than 2% of the actual net GHG removals by sinks...</i>” must be sustained with evidence or refer to EB 44 for neglecting emissions from fence posts. Emissions from fuelwood collection displacement must be sustained with evidence.</li> </ul> <p><u>Project Team Response May 2010</u></p> <ul style="list-style-type: none"> <li>a) Under normal circumstances, in between rows of clonal plantations / seed origin plantations, there is growth of weeds &amp; grasses. Attachment 21 provides evidence of the same. Additionally, under the baseline study detailed in Annex 3, the production of grass under current conditions is as low as 1.3 to about 4 t/ha/yr). Raising of CDM A/R plantations will increase the productivity and therefore the availability of grasses available as fodder. Firstly the cropping system traditionally in rainfed and subsistence agriculture involves multiple cropping, involving cereals, pulses and oil seeds. Straw of only certain cereal crops can be used as livestock fodder. Since the crop yields are low due to subsistence agricultural practices and absence of irrigation and fertilizer application, the straw yield will also be proportionately low. Thus, the straw or grass availability is insignificant under the baseline scenario – 1.3 t to 4 t/ha/yr. Under the proposed A/R CDM project, grass growth will be permitted between the rows of trees. Farmers will be allowed to cut the grass grown in between the rows of trees for use as fodder. Thus, there will be no leakage or shifting of grazing due to implementation of the CDM A/R project.</li> <li>b) The lands considered for the CDM A/R project are subsistence agricultural lands subjected to annual ploughing and weeding leading to removal of perennial plants and weeds. Thus these subsistence agricultural lands are devoid of any shrubby or perennial biomass growth, providing fuelwood. Woody biomass available on the lands being considered for the project is therefore highly insigni-</li> </ul>	
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		<p>ficant. Under the proposed CDM A/R project, branches of size smaller then 9cm are not collected but left for the farmer and this is approximately 10 to 15 tonnes per ha and this biomass from branches would be available to the farmers for use as fuelwood. Thus there will be no displacement of fuelwood gathering. Instead additional fuelwood will become available to the farmers post CDM A/R project implementation.</p> <table><tr><th>Plantation</th><th>Total biomass harvested/ha (t)</th><th>Quantity of branches or lops and tops of size &lt;9 cm girth (t/ha)</th></tr><tr><td>Eucaluptus</td><td>70</td><td>15% (10.5)</td></tr><tr><td>Casuarina</td><td>100</td><td>15 % (15)</td></tr><tr><td>Clonal Eucalyptus</td><td>100</td><td>15 % (15)</td></tr></table> <p><u>Audit Team June 2010:</u> Respective information and evidence regarding leakage are not included in the PDD. However no significant amount of livestock had been present on the project area, cultivation of farmland as the area is classified as degraded lands.</p> <p><u>Response July 28 2010:</u> Information added to the PDD</p> <p><u>Audit Team</u> PDD is updated with relevant information both fodder and fuel wood production in the project scenario is expected to be higher than in the baseline scenario. This is subject to monitoring and consequently included in the monitoring plan. Request closed.</p>	Plantation	Total biomass harvested/ha (t)	Quantity of branches or lops and tops of size <9 cm girth (t/ha)	Eucaluptus	70	15% (10.5)	Casuarina	100	15 % (15)	Clonal Eucalyptus	100	15 % (15)	
Plantation	Total biomass harvested/ha (t)	Quantity of branches or lops and tops of size <9 cm girth (t/ha)													
Eucaluptus	70	15% (10.5)													
Casuarina	100	15 % (15)													
Clonal Eucalyptus	100	15 % (15)													
<p><b><u>Corrective Action Request:</u></b> Provide parameters for monitoring of project boundary and project implementation as required by the applied methodology (see section III1.1 and 1.2)</p>	E.1	<p>Monitoring of project boundary as required by methodology (Section III 1.2) has been added to PDD and details included in Annex 4</p> <p><u>Audit Team</u> Monitoring of project boundary and project implementation is included in Annex 4. Request closed</p>	<input checked="" type="checkbox"/>												

<p><b><u>Corrective Action Request:</u></b> Include QA/QC procedures as required by the applied methodology (See section III 11.2). Move information from the Annex 4 or refer explicitly to Annex 4.</p>	E.1.2	<p>Explicit reference to Annex 4 has been added to the PDD</p> <p><u>Audit Team</u> QA/QC procedures are included in Annex 4 of the PDD, request closed.</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 14.</u></b> The conditions and parameters for ex-post stratification of the project area shall be included in the PDD.</p>	E.2	<p><u>Response Project Team:</u> Ex post stratification could be undertaken in situations where strata defined at the start of the project undergo changes from the influences of human or natural factors. The ex post stratification of the project shall be conducted under the following conditions.</p> <p><u>Audit Team 12.08.09:</u> Parameters for ex-post stratification are included.</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 15.</u></b> a) Revise the sampling calculations, ensure consistency with section C (24 strata) b) Ensure consistency of Winrock tool with methodology. Calculate sample per strata and update table E.2</p>	E.2	<p><u>Response Project Team:</u> a) Draft sampling calculations are revised (Annex 6) b) Consistency of Winrock tool ensured</p> <p><u>Audit Team 12.08.09:</u> a) Five strata were defined. A typo in the stratification chapter indicates 6 strata, correct this. b) Sample plots are defined for each stratum.</p> <p><u>Response July 28 2010:</u> Point a) above is corrected and explained</p> <p><u>Audit Team</u> Sample plot calculations were updated correspondingly. Request closed</p>	<input checked="" type="checkbox"/>

<p><b><u>Corrective Action Request No 16.</u></b></p> <p>a) Provide input data to for the actual calculation of the sample plots to the PDD</p> <p>b) Include the required parameter in this section of the PDD.</p>	<p>E.2</p>	<p><u>Response Project Team:</u></p> <p>(a) Spreadsheet with plot level input data used for calculations of volume and biomass per ha is presented (Attachment 7)</p> <p>(b) Spreadsheet presents the calculations of mean and standard deviation of biomass per ha for the stand models included in the project (Attachment 8)</p> <p><u>Audit Team 12.08.09:</u></p> <p>Attachment 7 provides growth data which is not requested in this CAR. Input data for the calculation of sample plot must be provided.</p> <p><u>Project Team Response May 2010</u></p> <p>Attachment 7_revised provides spreadsheet with calculation of mean and standard deviation of biomass per ha for the stand models, that is an input into the calculation of sample plots.</p> <p><u>Audit Team June 2010:</u></p> <p>The formulae to calculate the sample size is in the PDD differs from the one indicated in the applied methodology.</p> <p>All input parameters need to be included in the PDD</p> <p>Include information on size of the sample plot</p> <p>Provide the location of the sample plots</p> <p><u>Response July 28 2010:</u></p> <p>a) In the sample size calculation in the PDD earlier, the formula of the Method II (samples drawn with replacement approach) of the 'A/R Methodological Tool – Calculation of the number of sample plots for measurements within A/R CDM project activities (version 02)' was used.</p> <p>The revision to the sample size calculation has been made by adopting the formula of the Method I (samples drawn with replacement approach of the 'A/R Methodological Tool – Calculation of the number of sample plots for measurements within A/R CDM project activities (version 02)' is used. This formula is referred in the methodology</p> <p>b) The input parameters used for calculating the number of sample plots are pre-</p>	<p><input checked="" type="checkbox"/></p>
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		<p>sented in the PDD.</p> <p>c) The size of the sample plot - 0.025 ha (250 m<sup>2</sup>) is included in the PDD</p> <p><u>Audit Team</u> The respective AR-CDM tool is applied correctly. Request closed</p>	
<p><b><u>Corrective Action Request No 17.</u></b></p> <p>Ensure that all parameters of the methodology are included or it is explained why the respective parameter can be neglected</p>	E.4	<p><u>Response Project Team:</u> Parameters to be monitored as per the methodology are outlined in Table E.4</p> <p><u>Audit Team 12.08.09:</u> Corresponding parameters were included to the PDD. However some parameters were excluded, please include all parameters as per methodology Exclude footnotes Include parameters on leakage</p> <p><u>Response July 28 2010:</u> All parameters have been included, the parameters not required for calculation have been noted as "not applicable". Footnotes have been deleted</p> <p><u>Audit Team</u> The monitoring parameter are in compliance with the applied methodology. Request closed</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 18.</u></b></p> <p>a) Include the information currently presented in E.1.2 to section E.6 b) Include QA/QC for data monitoring in to the PDD section 6. c) Explain the process of monitoring and the relevant SOPs d) Include SOP for each step of the measurements, as required</p>	E.6	<p><u>Response Project Team:</u> a) Information in E.1.2 shifted to Section E.6 b) QA/QC for data monitoring included in Section 6 c) Monitoring and relevant SOPs explained d) SOP detailed for measurements</p> <p><u>Audit Team 12.08.09:</u> SOPs are mentioned in section E.6 and are also indicated in Annex 4 that these are proposed in the PDD, however they were not found in the PDD. Include SOPs as requested in items "c" and "d"</p>	<input checked="" type="checkbox"/>

		<p><u>Project Team Response May 2010</u> SOP included as Attachment 22</p> <p><u>Audit Team June 2010:</u> The SOP submitted are related to establishment of plantation, but not as requested concerning monitoring. Submit SOPs concerning monitoring as requested by the applied methodology</p> <p><u>Response July 28 2010:</u> SOPs and the formats for collection and organization of the monitoring data will be presented.</p> <p><u>Audit Team</u> SOPs are described in annex 4. Request closed</p>	
<p><b><u>Corrective Action Request No 19.</u></b> Explain the procedures for field data verification and define the error to be considered acceptable.</p>	E.6	<p><u>Response Project Team:</u> Procedures presented in section E.6</p> <p><u>Audit Team 12.08.09:</u> Procedures for data entry verification were included to the PDD</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 20.</u></b> Provide procedures for verification of data entry and analysis as required in the methodology section III, 11.2.3.</p>	E.6	<p><u>Response Project Team:</u> Procedures presented in section E.6</p> <p><u>Audit Team 12.08.09:</u> Procedures for data entry verification were included to the PDD</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 19.</u></b> Include organizational chart (organigram) in the PDD.</p>	E.7	<p><u>Response Project Team:</u> Organizational chart Included</p> <p><u>Audit Team 12.08.09:</u> The project's organization chart was included to the PDD</p>	<input checked="" type="checkbox"/>

<p><b><u>Clarification Request 20.</u></b> Provide required contact information.</p>	E.8	<p><u>Response Project Team:</u> Contact information updated</p> <p><u>Audit Team 12.08.09:</u> Contact information of the person applying the monitoring plan is included: Project Management Unit of VCCSL and JKPL</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request 21.</u></b> Include reference to the EIA that was carried out for the project.</p>	F.1	<p><u>Response Project Team:</u> An elaborate Environment Impact Assessment was carried out by a reputed organization "Centre for Environment Education", Hyderabad. After field visits and interaction with the multiple stakeholders, an Environment Management Framework (EMF) was formulated for the project and the same is attached as an Attachment 2.</p> <p><u>Audit Team 12.08.09:</u> Reference to the EMF developed for the WB was included in the PDD.</p>	<input checked="" type="checkbox"/>
<p><b><u>Corrective Action Request No 21.</u></b> a) Clarify how the overall number of man-days was derived in the table G.1.4. It was indicated that 100,000 seedlings require 400 man-days nursery and 600 man-days per planting per hectare, harvesting 200 man-days per ha. b) Clarify the differences between tables in G.1.3 and G.1.4. c) Update the table G.1.4 according to the updated overall area (3502)</p>	G.1	<p><u>Response Project Team:</u> a) Table updated (refer to Attachment 9 for details) b) Table G.1.3 and G.1.4 combined into a single table c) Table updated in accordance with changed overall area</p> <p><u>Audit Team 12.08.09:</u> Indication of mandays calculation considers 20 people/ha for nursery operations, 195 people/ha for planting and maintenance and 285 people/ha for harvesting.</p>	<input checked="" type="checkbox"/>

**Table 3: Unresolved CAR / CR / FAR**

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>Not applicable</i>		



## Annex 2: Information Reference List

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information																																				
1.		<p>On-site interviews at the offices and the project</p> <p><b>Validation team on site:</b> Sebastian Hetsch - Auditor, TÜV SÜD Industrie Service GmbH Juan Chang - Auditor, TÜV SÜD Industrie Service GmbH Martin Schröder - Auditor, TÜV SÜD Industrie Service GmbH</p> <p><u>Interviewed Persons:</u></p> <table><tr><td>1.</td><td>C.A Rao</td><td>Managing Director VEDA Climate Change So- lutions Ltd.</td></tr><tr><td>2.</td><td>Lak Tewari</td><td>Director VEDA Climate Solutions Ltd</td></tr><tr><td>3.</td><td>Prabir De</td><td>Co-ordinator Projects &amp; Training Science</td></tr><tr><td>4.</td><td>MC Goel</td><td>Executive Vice president JK Paper Ltd.</td></tr><tr><td>5.</td><td>M Satyanavayana</td><td>Honorary advisor VEDA Climate Change Solu- tions Ltd.</td></tr><tr><td>6.</td><td>M. Surya</td><td>Honorary advisor VEDA Climate Change So- lutions Ltd.</td></tr><tr><td>7.</td><td>Shanmukharao</td><td>VCCSL Project Manager</td></tr><tr><td>8.</td><td>AB Brahmanadu</td><td>JKPL Manager</td></tr><tr><td>9.</td><td>DK Sahoe</td><td>JKPL Manager</td></tr><tr><td>10.</td><td>Ranjan</td><td>World Bank</td></tr><tr><td>11.</td><td>Suha Iyes</td><td>World Bank</td></tr><tr><td>12.</td><td>Sunil Bhargava</td><td>JKPL Manager</td></tr></table> <p>In addition 60 randomly selected farmers were visited and interviewed.</p>	1.	C.A Rao	Managing Director VEDA Climate Change So- lutions Ltd.	2.	Lak Tewari	Director VEDA Climate Solutions Ltd	3.	Prabir De	Co-ordinator Projects & Training Science	4.	MC Goel	Executive Vice president JK Paper Ltd.	5.	M Satyanavayana	Honorary advisor VEDA Climate Change Solu- tions Ltd.	6.	M. Surya	Honorary advisor VEDA Climate Change So- lutions Ltd.	7.	Shanmukharao	VCCSL Project Manager	8.	AB Brahmanadu	JKPL Manager	9.	DK Sahoe	JKPL Manager	10.	Ranjan	World Bank	11.	Suha Iyes	World Bank	12.	Sunil Bhargava	JKPL Manager	01-08 April 2009	
1.	C.A Rao	Managing Director VEDA Climate Change So- lutions Ltd.																																						
2.	Lak Tewari	Director VEDA Climate Solutions Ltd																																						
3.	Prabir De	Co-ordinator Projects & Training Science																																						
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8.	AB Brahmanadu	JKPL Manager																																						
9.	DK Sahoe	JKPL Manager																																						
10.	Ranjan	World Bank																																						
11.	Suha Iyes	World Bank																																						
12.	Sunil Bhargava	JKPL Manager																																						
2.	PPs	Project Design Document: Improving Rural Livelihoods Through Carbon Seques- tration By Adopting Environment Friendly Technology based Agroforestry Prac- tices.	GSP version 01: 11 Feb 2009 Final version: 28 July 2010																																					

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
3.	DNA India	Letter of Approval from India	5 July 2009	
4.	DNA Canada	Letter of Approval from Canada	17 February 2011	
5.	JK Paper	Data base (MS Access) of all parcels	Copy provided during onsite visit	
6.	LANDSAT	Satellite Imagery: LANDSAT 1988 and 1989,	1989/ 1988	Land eligibility
7.	LISS	IRS-P6 (LISS III) 2003 and 2007	2003 and 2007	Land eligibility
8.	JK Paper	Project field data formats for each parcel Sheet: "CDM project data required" and "Questionnaire for CDM Project under A/R"		Baseline, Leakage, Additionality, Applicability criteria
9.	PP	Contract between farmers, JK Paper Ltd and VEDA Climate Change Solutions Ltd. Available for each parcel.		Tenure / Carbon rights
10.		Legal title of the land from the government. Available for each parcel.		Tenure / Carbon rights
11.		Agreement between World Bank BioCF, JK Paper Ltd and VEDA Climate Change Solutions Ltd.		Tenure / Carbon rights
12.	JK Paper	Planting Manual Series for both species (Eucalyptus and Casuarina)		Project implementation
13.		PPT presentation regarding land eligibility	Provided during on-site visit	Land eligibility
14.	JK Paper	Analysis Report of PRA, JKPL started in 2004 finished in 2007		
15.		Tax Revenue records of the Provincial Government. Paper copies from several farmers provided during onsite visit	Copy provided during onsite visit	
16.	PP	PIN of the proposed CDM project activity submitted to the World Bank BioCF	30 Dec 2003	Early CDM consideration
17.	JK Paper forest organisation	Receipt on delivery of seedlings	26 June 2004	Starting date
18.	World Bank	Web page of the WB: (accessed on 03.08.09) <a href="http://wbcarbonfinance.org/Router.cfm?Page=Projport&amp;ProjID=9636">http://wbcarbonfinance.org/Router.cfm?Page=Projport&amp;ProjID=9636</a>	Accessed Aug 2010	
19.	PP	Annex 6_Sampling calculations (CAR_15).xls		Calculation of sample plots
20.		Map Soil Map of Andrah Pradesh and Orissa		Applicability of meth

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
21.		Field data form of JKP on soil type, land type and legal status (Interviews to farmers)		
22.	Govt of India	The National Forest Policy of the Govt of India. Paper copy provided during onsite visit	1988	Additionality
23.	National Remote Sensing Agency	Wastelands Atlas of India. Dept of Space, Government of India. Ministry of Rural development Department of Land Resources	2005	Applicability of meth
24.		First bank loans to the farmer. Paper copy provided during onsite visit	2008	Additionality
25.	PPs	TARAM excel file: Annex 7_TARAM V1.3_IRL_INDIA_040110_Carbon calculations (CAR_3).xls	Final version : 10 May 2009	Calculation of CERs
26.	JK Paper	Growth models for Eucalyptus, Eucalyptus Clonal, and Casuarina		Calculation of CERs
27.	JK Paper	SOP on JKPL staff training		Project implementation
28.	JK Paper	ISO 9001 Quality Management Procedure of JKPL (2001)	2001	Project implementation
29.	JK Paper	Planting manual for new staff		Project implementation
30.		Environmental Management Framework	2006	
31.	JK Paper	Minutes of meetings with stakeholders	2004	
32.	JK Paper	Draft report of growth model calculation made by JKPL		
33.	PP	Digital Boundary files of the project area: JK_data.shp	May 2010	Project location / Boundary
34.	PP	Baseline Analysis: Attachment 6a_Baseline_Analysis.xls		Baseline
35.		Attachment 23_Planning commission_State Dev Report Ch IV (sdr_orich4)		
36.	Jain, Singh and Roy	Indian Paper Industry Raw Material Scenario, Growth Prospects and Pathways	Sept 2007	Additionality
37.		Article by JKPL in Indian Pulp and Paper Technical Association (IPPTA) Journal, Vol 20, No. 1, Jan-Mar 2008	2008	Additionality
38.	Atibudhi, H.N.,	Institutional Credit and Factors Influencing Its Flow to Agriculture in Orissa, Indian Journal of Agricultural Economics,	July 1, 2005	Additionality
39.	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.	1990	Additionality

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
		21. (1990). 281-307.		
40.	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
41.	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
42.	TÜV SÜD	Field Notes of audit team with information on eligibility, baseline scenario and carbon stock, planned project scenario and leakage	Apr 2009	Eligibility, Baseline, Leakage
43.	IPCC	Good Practice Guidance on Land Use, Land Use Change and Forestry	2003	Calculation of CERs
44.	Ministry on Environment and forests, India	Forest Survey of India 2004	2004	
45.	Ballarpur Industries Limited	BILT website: <a href="http://www.bilt.com/sewa.asp">http://www.bilt.com/sewa.asp</a> (accessed on 03.08.09) <a href="http://www.biltcsr.com/programms.asp?Locat=CSR%20in%20Farm%20Forestry">http://www.biltcsr.com/programms.asp?Locat=CSR%20in%20Farm%20Forestry</a>	July 2010	Additionality
46.	JK Paper	Plantations before project start: Attachment 18_Large farmer predominance_pre_CDM(1).xls	Submitted 12 May 2010	Additionality
47.	Ministry on Environment and forests, India	Environmental Impact Assessment. Impact Assessment Division, Ministry of Environment and Forests, Government of India <a href="http://envfor.nic.in/divisions/iass/eia/Cover.htm">http://envfor.nic.in/divisions/iass/eia/Cover.htm</a> (accessed on 03.08.09)	January 2001	Additionality
48.	The Indian Paper Manufacturers Association	Statement on Agroforestry projects by Indian paper mills	12 Aug 2009	Additionality
49.	UNFCCC	UNFCCC CDM web page: Reforestation of degraded land by MTPL in India: <a href="http://cdm.unfccc.int/Projects/Validation/DB/QT1C6ZQJ4RJK28UFAI503NEOA8A2UY/view.html">http://cdm.unfccc.int/Projects/Validation/DB/QT1C6ZQJ4RJK28UFAI503NEOA8A2UY/view.html</a> (accessed on 03.08.09)		Additionality
50.	UNFCCC	UNFCCC CDM web page: Project 2241 : Reforestation of severely degraded landmass in Khammam District of Andhra Pradesh, India under ITC Social Forestry Project: <a href="http://cdm.unfccc.int/Projects/DB/BVQI1222275709.04/view">http://cdm.unfccc.int/Projects/DB/BVQI1222275709.04/view</a> (accessed on 03.08.09)		Additionality
51.	IPCC	Guidelines for National Greenhouse Gas Inventories. Volume 4. Agriculture, Forestry and Other Land Use	2006	
52.	FAO	Mean annual volume increment of selected industrial forest plantation species.	2001	



Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	Additional Information
		Forest Plantations Thematic Paper. Working Paper FP/1 <a href="http://www.fao.org/docrep/004/ac121e/ac121e04.htm">http://www.fao.org/docrep/004/ac121e/ac121e04.htm</a> (accessed on 03.08.09)		
53.	Arjan de Haan and Sakti Padhi	Monitoring of Poverty in Orissa: Report from a Workshop. Economic and Political Weekly. Vol. 38, No. 50 (Dec. 13-19, 2003), pp. 5243-5245. URL: <a href="http://www.jstor.org/stable/4414396">http://www.jstor.org/stable/4414396</a> (accessed on 03.08.09)	2003	
54.	Vasundhara	Development Policies and Rural Poverty in Orissa: Macro Analysis and Case Studies. Supported by Planning Commission, Gol. URL: <a href="http://planningcommission.nic.in/reports/sereport/ser/stdy_dvpov.pdf">http://planningcommission.nic.in/reports/sereport/ser/stdy_dvpov.pdf</a> (accessed on 03.08.09)	March 2005	
55.	S.Mahendra Dev, S.Galab, C.Ravi	Poverty in Andhra Pradesh: Measurement, Identification and Policy Imperatives Paper prepared for the International Seminar on "REVISITING THE POVERTY ISSUE: MEASUREMENT, IDENTIFICATION AND ERADICATION" Patna, July 20-22, 2007, Organised by Institute for Human Development, A.N. Sinha Institute of Social Studies and Asian Development Research Institute	July 2007	
56.	Directorate of Animal Husbandry	Report on Major Livestock Products for Years 2008-09 and 2009-10, Integrated Sample Survey, Animal Husbandry Department, Government of Andhra Pradesh, Hyderabad, Andhra Pradesh.	2010	Leakage

## **Annex 3: Appointment Certificates**



Industrie Service

# CERTIFICATE OF APPOINTMENT

**Sebastian Hetsch**

accomplishes the requirements according to the guidelines of the  
 Certification Body "climate and energy" of  
 TÜV SÜD Industrie Service GmbH  
 and is appointed as

**Assessment Team Leader**

for the scope of application:

**CDM Projects**

The requirements of the QM-Manual and of the attachments of the  
 Certification Body "climate and energy" are binding.

This appointment is valid for 3 years.

Certificate No. **CMS-Z-113**

Munich, 2010-05-28

*Heja Weber*

Certification Body "climate and energy"





Industrie Service

# CERTIFICATE OF APPOINTMENT

**Sebastian Hetsch**

accomplishes the requirements according to the guidelines of the  
Certification Body "climate and energy" of  
TÜV SÜD Industrie Service GmbH  
and is appointed as

**GHG validator**

for the following Technical Areas in the Sectoral Scopes:

**14 (14.1, 14.2, 14.3, 14.5)**

The requirements of the QM-Manual and of the attachments of the  
Certification Body "climate and energy" are binding.

This appointment is valid for 3 years.

Certificate No. **CMS-Z-113**

Munich, 2010-05-28

*Regina Welsch*

Certification Body "climate and energy"





Industrie Service

# CERTIFICATE OF APPOINTMENT

**Martin Schröder**

accomplishes the requirements according to the guidelines of the  
Certification Body "climate and energy" of  
TÜV SÜD Industrie Service GmbH  
and is appointed as

**GHG validator / verifier**

for the following Technical Areas in the Sectoral Scopes:

**13** (13.1, 13.3), **14** (14.1, 14.2, 14.3, 14.5), **15** (15.1)

The requirements of the QM-Manual and of the attachments of the  
Certification Body "climate and energy" are binding.

This appointment is valid for 3 years.

Certificate No. **CMS-Z-47**

Munich, 2010-05-28

Certification Body "climate and energy"



Industrie Service

# CERTIFICATE OF APPOINTMENT

**Robert Scharpenberg**

accomplishes the requirements according to the guidelines of the  
Certification Body "climate and energy" of  
TÜV SÜD Industrie Service GmbH  
and is appointed as

**Technical Reviewer**

for the following sectoral scopes:

**1, 14**

The requirements of the QM-Manual and of the attachments of the  
Certification Body "climate and energy" are binding.

This appointment is valid for 3 years.

Certificate No. **CMS-Z-88**

Munich, 2010-05-28

Certification Body "climate and energy"