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# Validation Report

**The World Bank**

VALIDATION OF THE CDM-PROJECT:  
REFORESTATION AS RENEWABLE SOURCE OF  
WOOD SUPPLIES FOR INDUSTRIAL USE IN BRAZIL

REPORT NO. 1030115

**16 July 2010**

TÜV SÜD Industrie Service GmbH  
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Report No.	Date of first issue	Revision No.	Revision Date	Certificate No.
1030115	10-10-2008	4a	16-07-2010	-

*Note: The present version 4a of the validation report contains additional explanations on the Re-GSP. In comparison to version 04, no other changes with regard to content of the report were made.*

<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> The World Bank 1818 H St NW Washington. DC., 20433 USA
<b>Project Participant:</b> Plantar S/A Planejamento, Técnica e administração de Reflorestamentos Av. Raja Gabágia, 1380, Santa Maria Belo Horizonte Minas Gerais, Brazil  International Bank for Reconstruction and Development as a Trustee of the Prototype Carbon Fund, World Bank 1818 H St NW Washington. DC., 20433, USA  The Netherlands Ministry of Housing, Spatial Planning and Environment - Directorate of International Affairs, Rijnstraat 8, P.O. 30945 The Hague, Netherlands	<b>Project Site(s):</b> State of Minas Gerais, Brazil Plantar Headquarter: Municipality of Belo Horizonte, Reforestation Sites: Municipalities of Curvelo, Felixlândia, Morada Nova de Minas  Digital boundary files on geographic locations are provided to UNFCCC jointly with this report.
<b>Project Title:</b> Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil	
<b>Applied Methodology / Version:</b> AR-AM0005 / Version 01	<b>Scope:</b> 14 <b>Technical Areas:</b> 14.1 and 14.3
<b>First PDD Version:</b> Date of issuance: 04-03-2008 Version No.: 01 Starting Date of GSP: 28-05-2008 Starting date of repeated GSP: 14-04-2010	<b>Final PDD version:</b> Date of issuance: 16-02-2009 Version No.: 03a
<b>Estimated Annual Emission Reduction:</b> 75,783 t CO <sub>2</sub> -e	
<b>Assessment Team Leader:</b> Martin Schröder  <b>Further Assessment Team Members:</b> Gabriel Medina	<b>Technical Reviewer</b> Robert Scharpenberg  <b>CB Responsible</b> Thomas Kleiser

**Summary of the Validation Opinion:**

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

## Abbreviations

<b>ACM</b>	Approved Consolidated Methodology
<b>AM</b>	Approved Methodology
<b>AMS</b>	Approved Methodology Small scale
<b>CAR</b>	Corrective Action Request
<b>CDM</b>	Clean Development Mechanism
<b>CDM EB</b>	CDM Executive Board
<b>CER</b>	Certified Emission Reduction
<b>CMP</b>	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
<b>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>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>MP</b>	Monitoring Plan
<b>NGO</b>	Non Governmental Organisation
<b>PDD</b>	Project Design Document
<b>PP</b>	Project Participant
<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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Annex 1: Validation Protocol

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## 1 INTRODUCTION

### 1.1 Objective

The validation objective is an independent assessment by a Third Party (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 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 has been submitted under the project title:  
Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil.

### 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-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the sectoral scope applied for
- 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 a first PDD version, 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, e.g. certain conditions allow the GSP to be repeated, a

request to revise the PDD will be processed. The original PDD and the modified PDD will form the basis for the final evaluation. Information on both PDD's is presented on page 1.

The purpose of a validation is its use during the registration process as part of the CDM project cycle. Therefore, TÜV SÜD cannot be held liable by any party for decisions made, or not made, based on the validation opinion, which will go beyond that purpose.

## 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 01. The work starts with the appointment of the team covering the technical scope(s), sectoral scope(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:

It organizes details and clarifies the requirements a CDM project is expected to meet;

It ensures a transparent validation process where the validator has to document how a particular requirement has been validated, as well as the results of the validation and any adjustments, if any, made to the project design.

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 further subdivided. The lowest level</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are ap-</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</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented</i>

<i>constitutes a checklist question / criterion.</i>	<i>refers to documents other than the PDD.</i>	<i>plied indicating yes/no decisions on the compliance with the stated criterion. Any <b>Re-request</b> has to be substantiated within this column</i>	<i>the validation team has identified a need for further clarification. <b>Forward action request</b> to highlight issues related to project implementation that require review during the first verification.</i>	<i>in the documentation.</i>
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<b>Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests</b>			
<b>Clarifications and corrective action requests</b>	<b>Ref. to table 1</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>
<i>If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue is explained.</i>	<i>The responses given by the 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.

<b>Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests</b>		
<b>Clarifications and corrective action requests</b>	<b>Id. of CAR/CR 1</b>	<b>Explanation of the Conclusion for Denial</b>
<i>If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.</i>	<i>Identifier of the Re-request.</i>	<i>This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion with a clear reference to the requirement which is not complied with.</i>

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

## 2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Validator / Verifier



- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

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

Name	Qualification	Coverage of scope	Coverage of technical area	Host country experience
Martin Schröder	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gabriel Medina*	E	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

\*at the date of the revised audit report not appointed as Expert due to ongoing re-appointment processes at the DOE.

**Martin Schröder** is appointed as Assessment Team Leader and GHG-Auditor by the certification body "climate and energy". He holds a Masters Degree in forestry and passed successfully internal training schemes in the field of auditing as well as the technical features of landfill and energy related projects. Before entering the company, he worked in the field of development projects in the Amazon Region and managed forestry based carbon offset projects.

**Gabriel Medina** is a forestry expert. Mr. Medina is based in Belem, Brazil and works with a focus on forestry projects. He holds a Phd title in the field of community forestry and development projects. In the context of the present audit he provided expertise on the national framework relevant for reforestation and forest conservation projects.

## 2.2 Review of Documents

The first version of the PDD was submitted to the DOE in May 2008. The first PDD version submitted by the PP and additional background documents related to the project design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources (if available) has been done as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as Annex 2 to this report.

## 2.3 Follow-up Interviews

In the period of May 28 to 31, 2008 TÜV SÜD performed interviews, telephone conferences, and physical site inspection with project stakeholders 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.

	Name	Organisation
1	Tatiane de Oliveira Heck	Planning Assistant, Plantar
2	Carlos Augusto Z. Toneli	Forestry Analyst, Plantar
3	Sandro Longuinho	Forestry Planning, Quality and Research Manager, Plantar

4	Rodrigo Ferreira	Carbon Project Analyst; Plantar
5	Thiago de A. Mendes	Carbon Project Analyst; Plantar
6	Luiz C. Goulart	Carbon Project Manager, Plantar
7	Fabio N.A. Marques	Carbon Project Manager, Plantar
8	Fabiano Goulart	Environmental Analyst, Plantar
9	Cristiana Oliveira	Carbon Project Analyst, Plantar
10	Adauta Cupertino de Oliveira	Forestry Consultant

In this process, the selected reforestation sites were visited and interviews with the relevant consultants (i.e. on land eligibility) have been carried out.

It is underlined that in regard to impacts of the project, relevant items were largely covered in the context of the Environmental Impact Studies and the FSC certification which also included components of stakeholder consultations. This information was reviewed as part of the audit, jointly with information on the stakeholder process as required by the DNA in Brazil.

## 2.4 Further cross-check

During the validation process the team makes reference to available information related to similar projects or technologies as the CDM project activity. The documentation has also been reviewed against the approved methodology/ies applied to confirm the appropriateness of formulae and correctness of calculations.

## 2.5 Resolution of Clarification and Corrective Action Requests

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

The final PDD version submitted March 2009 serves 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. These are an achievement of reduction of anthropogenic GHG emissions and to contribute to a sustainable development.

Minor changes were included in the PDD version 03a after the previous review of the PDD and the Validation Report (version 02) by the DNA of Brazil. Corresponding changes have been validated by TÜV SÜD and included into the present Validation Report (No 1030115).

## 2.6 Internal Quality Control

As final step of a validation activity the final documentation, which includes the validation report and the validation protocol, has to undergo an internal quality control by the CB "climate

and energy". That means that each report has to be 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 approval can only be given by the either one not serving on the project.

In this particular case, the review process by the Certification Body was carried out initially by Mr. Javier Castro and in the subsequent stage by Mr. Thomas Kleiser, using Dr. Hubertus Schmidtke as further expert in the field to cover the scope. For the final version of the report (after Re-GSP), the review was carried out by Mr Robert Scharpenberg.

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 stated in Annex 2.

#### **3.1 Approval**

The project participants are (i) Plantar S/A Planejamento, Técnica e administração de Reflorestamentos of Brazil and (ii) the International Bank for Reconstruction and Development (IBRD) as a Trustee of the Prototype Carbon Fund, (World Bank) on behalf of the Netherlands and (iii) the Netherlands as Party to the Kyoto Protocol. The host Party Brazil and the Netherlands meet the requirements to participate in the CDM.

The DNA of the Netherlands has issued a LoA (IRL 47) on 21 May 2008 authorizing IBRD as a project participant. TÜV SÜD received this letter from the project participant directly and considers the provided letter as authentic. Furthermore, after checking the provided LoA, TÜV SÜD confirms that the letter refers to the precise proposed CDM project activity title in line with the title in the PDD. The letter also indicates that the participating Party is a Party to the Kyoto Protocol, and that the participation in the project Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil is voluntary.

Based on the information given in this letter, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoA has been issued by the Netherland's DNA, Ministry of Housing, Spatial Planning and the Environment. The LoA does not refer to a specific version of the PDD or validation report. The corresponding references included to LoA, PDD and validation report are consistent.

The Brazilian DNA issued a first LoA on 6 April 2009, based on the PDD from 16 February 2009 (version 3a) and the validation report from TÜV SÜD from 04 March 2009 (version 03). Due to a repeated GSP and comments that are addressed in this validation report, a new LoA from Brazil was requested.

The DNA of Brazil may issue a LoA after the submission of the final validation report. The LoA of the host country will include a statement on the contribution to sustainable development of that country.

TÜV SÜD will submit a request of registration to EB if the expected LoA of Brazil also complies with the requirement of VVM (§§ 45-48), as already confirmed for the LoA from the Netherlands.

#### **3.2 Participation**

The participant IBRD of the project activity has been approved by the corresponding Party (Netherlands), which is confirmed by the issued LoA.

The DNA of Brazil is expected to issue a LoA after the submission of the final validation report.

The means of validation used are similar to the ones described in section 3.1, specifically in regard to the approval process of the project activity.

### **3.3 Project design document**

The PDD is compliant with relevant form and guidance as provided by UNFCCC. The most recent version of the PDD form was used.

TÜV SÜD considers that the guidelines for the completion of the PDD in their most recent version have been followed. Relevant information was provided by the participants in the applicable PDD sections. Completeness was assessed through the checklist included in Annex 1 of this report.

### **3.4 Project description**

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

The project consists of newly established Eucalyptus reforestation on 11,711 ha in the Brazilian State of Minas Gerais. The intention of the project owner is to use the wood produced in a 7 year rotation cycle for charcoal making, which is then used for charcoal production. Corresponding lands were newly acquired by the participant Plantar for this purpose.

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

- Review of data and information (Annex 2). This was verified with other sources if available.
- An on-site visit has been 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 have been 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-AM0005 version 01 has been demonstrated.

The assessment was carried out for each applicability criteria 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 Methodology specific protocol, included to the Annex 1, documents the assessment process, which also includes the steps taken. The results on the compliance check, as well as the relevant evidence, are detailed in Annex 1.

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, have not been identified.

### **3.5.2 Project boundary, pools and eligibility**

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

The project boundary is conformed of discrete planting areas consolidated in two larger blocks. The boundary as defined in the field was found to be consistent with the indications in the PDD. In the field the boundary delineation was taken with a high level of precision based on topographic studies on property limits. Improved labeling of the numerous discrete parcels in the PDD was requested by the auditing team in order to allow for traceable site identification.

Complementary to the field visits of the audit team, the most relevant documents assessed in order to confirm the project boundary are the following:

- GPS coordinates and GIS files (Annex 2, IRL item 9)
- Maps of project boundary as also included to the final PDD.

The same have been validated during the validation process using standard audit techniques, further details of any observation are presented in the Annex 1.

In regard to control over the project area, it was confirmed that the project participant Plantar is holder of the properties (Annex 2, IRL item 15). The corresponding documentation was reviewed and found established according to the legal system of the host country. Thus, control over the project area by the PP is considered to be established.

Hence, TÜV SÜD confirms that the identified boundary documented in the PDD is adequately defined for the project activity.

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

In regard to eligibility of lands, the project area was visited by the audit team and found to fully comply with the requirements of the most recent Eligibility Procedure as defined by the EB.

Among others the assessment of the compliance with was based on the following evidence:

- Analysis of satellite images, including analysis of historic land use prior to end of 1989 (Annex 2, IRL item 14 and 34).

After the completion of the validation and prior to final DNA approval, the DNA requested to include some further information in regard to the installation of ecologic corridors to the PDD. This could partially impact the project boundary. The audit team concluded that the impact is negligible in regard to impacts on the ex-ante validated emissions reductions. No windfall credits could be issued as potential boundary changes will be monitored.

### **3.5.3 Baseline identification**

In the PDD the following baseline scenario has been defined:

- the maintenance of the grassland landuse in eligible areas

The information presented in the PDD has been validated by a first document review, further confirmation based on the on-site visit and a final step by cross checking the information with similar relevant projects and/or technologies.



The sources referenced in the PDD have been quoted correctly. The information was cross-checked based on verifiable and credible sources, such as:

- Scolforo, J.R. 2006: Land use and forestry map of Minas Gerais (Mapamento e inventario da Flora Nativa e dos Reflorestamentos de Minas Gerais), and UFLA 2007 Minas Gerais Agriculture Department (2007), land use statistics. (Annex 2, IRL item 17).

Field visits and interviews sustained the chosen baseline approach as per CDM Modalities and Procedures: "Changes in carbon stocks in the pools within the project boundary from the most likely land use at the time the project starts"

In the case of this project, the historic land use applicable to the project area prior to project start, which is grassland, would also be the likely future land use in absence of the project.

The methodology foresees that a baseline afforestation / reforestation rate may exist. In the audit process it was clarified that Plantar carried out some forestation activities prior to the project start in areas of older, so called 'exhausted' Eucalyptus plantations (Unit MG02), which are not part of the project area. Those activities were partly measures of state programs. Due to the prior vegetation existing on these lands, it was clarified that these areas are not reforestation according to CDM definitions. As these activities are not reforestation according to the CDM, the audit team therefore accepted that the project entity specific A/R rate was set zero. However, the methodology also foresees the consideration of a regional reforestation rate. Considering the state of Minas Gerais as the relevant regional limit, an annual reforestation rate of slightly more than 1.1 % was adopted and considered in the corresponding removal calculations (compare TARAM). This is considered conservative in light of the fact that the entire plantations in Minas Gerais do not make up for more than 2 % of the land area (Annex 2, IRL item 17).

TÜV SÜD has determined that no reasonable alternative scenario has been excluded. Based on the validated assumptions on calculations TÜV SÜD considers that the identified baseline scenario is reasonable.

TÜV SÜD confirms that all relevant CDM requirements, including relevant and / or sectoral policies and circumstances, have been identified correctly taken into account in the definition of the baseline scenario.

A verifiable description of the baseline scenario has been included to the PDD.

In regard to item 86 of VVM, TÜV SÜD confirms that:

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 has been 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

TÜV SÜD has assessed the calculations of baseline stocks and removals, project emissions, leakage and the expected net anthropogenic GHG removals by sinks. Corresponding calculations



tions were carried out based on calculation spreadsheets. Correctness of calculations can be confirmed as the same have been 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.

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 have been checked and confirmed. Detailed information on the verification of parameters used in the equations can be found in Annex 1. In essence, the methodology has been correctly applied following the requirements.

Hence, the calculation of baseline stocks and removals as well as the expected project emissions, leakage and the net anthropogenic GHG removals by sinks can be considered as correct and in line with the methodology.

### **3.5.5 Baseline stocks and greenhouse gas removals by sinks**

The parameters and equations presented in the PDD and further documentation have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files.

The baseline carbon stocks and removals assessed for the above and belowground carbon pools are based on adequate inventory data as well as defaults that are consistent with the field conditions. Baseline stocks have been estimated and considered for all relevant types of vegetation (trees, shrubs, herbaceous vegetation, if applicable).

The baseline study concluded that the areas were not covered with relevant tree or shrub cover. This is sustained by the eligibility study. Baseline removals were set zero. For baseline stocks a regionally applicable literature source was used indicating carbon stocks of 10.97 t / CO<sub>2</sub> / ha for grazing areas. This was discounted in the calculations. The estimates are considered adequate for the project context and conservative also in comparison to IPCC defaults.

The stratification process differentiated only one single baseline strata, which is considered acceptable under homogenous conditions as documented through the land use and eligibility assessment.

Thus, good practice in regard to forest inventory and the applied defaults and sources have been followed in the context of the baseline assessment. Further details are included to Annex 1.

### **3.5.6 Project emissions**

In regard to the considered GHG emissions, the sources fuel use and fertilizer use have been considered. The estimates were found to match common practice and conditions in the project. Calculations as part of TARAM comply with methodology requirements. Biomass burning as potential source by the methodology was not considered by the participant, which is sustained by the fact that no indications have been found through onsite mission and interviews that this is applicable to the project context. Pre-existing vegetation and its carbon stocks have been discounted as described above in regard to the baseline.

### **3.5.7 Leakage**

Leakage was estimated only for transport outside the project boundary. Exclusion of other leakage sources as foreseen by the methodology is considered justified.

In regard to leakage, it was analyzed if the potential displacement of animals present on the land prior to its acquisition for reforestation process is at all attributable to the project activity.

Nonetheless, in order to demonstrate conservativeness, the number of cattle present on this land prior to project start and the areas to which they were displaced has been assessed through interviews with the prior owners. Corresponding questionnaires and responses have been reviewed by the audit team (Annex 2, IRL item 16).. It was concluded that the average grazing intensity in the newly used areas was altered within typical ranges for the Cerrado region, which hovers around 0.5-1.0 animal unit for rotation grazing with dominant *Bracharia* spp grasses (Annex 2, IRL item 45). Based on the carried out estimates in section A.5.6 in PDD the changes in livestock are considered small and therefore leakage from activity displacement was considered negligible.

### 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 were based on yield tables (local sources) and have been carried out in line with methodology requirements. Adequate defaults on root to shoot ratio, biomass expansion factor, and wood density were used.

The calculations of the net removals were carried based on the excel spreadsheet tool TARAM. The project opted to consolidate all *Eucalyptus* stand models (which only differ according to *Eucalyptus* clone, while having same densities and management practices) to one project strata. The defaults applied for Wood Density (WD), Biomass Expansion Factor (BEF), Root to shoot ratio (RS) were traceable and based on regional or local sources (Annex 2, IRL item 28).

Only carbon fraction (CF=0.5) was taken from IPCC. For the calculations weighted averages of BEF and RS were applied in order to reflect on differences according to age classes. The approach was checked and accepted. Key data was requested to be included to the PDD. The used allometric equations for *Eucalyptus* spp. were elaborated based on specific inventory and sampling software for the project, and is considered adequate to accurately describe expected growth performance. The calculations have been assessed, found correct and in line with methodology requirements.

## 3.6 Additionality

The additionality of the project has been presented in the PDD using following approach: Additivity tool for AR-CDM (version 02) using barrier analysis.

The approach use in the PDD has been assessed first based on a document review, where following relevant documents have been reviewed:

- Land use and forestry map of Minas Gerais and Minas Gerais Agriculture Department (2007), land use statistics.
- Brazil's contribution to prevent climate change, whitepaper 2007 (including forestry information)

On site the additionality has been discussed principally with the project team of Plantar S.A. as a project participant. Furthermore relevant documents have been reviewed on-site (Annex 2) and interviews on this matter have been carried out with stakeholders.

Finally the data, rationales, assumptions, justifications and documentation provided have been checked using local knowledge and sectoral and financial expertise, the same has been cross checked by:

- Research in the internet, utilizing among others the sources indicated in section C.6 of the Project Design Document

- Review of World Bank documents elaborated in early stages of the project (Annex 2, IRL 21 and 25)

Based on this validation steps we can confirm that the documentation assessed is appropriate for this project.

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

The project activity started on 10 November 2000. The starting date was documented and sustained internally by inventory records as the date of first plantings.

The project was developed and discussed i.e. in the context of climate change conferences as one of the first CDM projects worldwide. Project related documents and studies exist and have been reviewed, among others by Worldbank, which underline the CDM consideration and which are dated prior to starting date (Annex 2, IRL Item 22-24).

The project complies with the requirement of prior CDM consideration.

### **3.6.2 Identifications of alternatives**

The output of the project is: installation of new plantations in order to provide wood for iron production.

Relevant alternatives (baseline scenarios) identified in the context of the additionality test apart of the project activity without the CDM component are 1. continuation of the pre-project grazing activities and 2. reforestations at intermittent rates.

The list of alternatives to the project is presented in the PDD includes the project activity undertaken without being registered as CDM project. The rest of the alternatives presented do include all plausible scenarios taking into account the local and sectoral situations for the outputs mentioned. Hence the list of alternatives is considered to be complete.

### **3.6.3 Barrier analysis**

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

- Investment barriers
- Barriers due to prevailing practices
- Management and institutional barriers

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

The investment barrier has been assessed against official documents such as

- Confirmations from the national bank sector in Brazil in regard to non-availability of long term loans (suitable for forestry projects) in Brazil
- Documentation in regard to inaccessability of international capital market for such loans for the project participant due to elevated risk levels.
- Confirmation by recognized sources in regard to insufficient public funding for reforestations (such as those of the project activity).

Further details are discussed in Annex 1 (Table 1, section B.7 and Table 2). Relevant evidence is listed in Annex 2 (item 48, 49, 50, 51).

Thus, it has been confirmed that there was no alternative financing available for the project activity and that it has become recently available through the project and its carbon component.

The audit team was able to confirm the existence of further barriers other sources on the forestry sector in Brazil (Annex 2, IRL item 26).

The result of this assessment shows clearly that the barriers presented in the PDD can be considered real. These barriers do 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 has been i.e. confirmed by the interviewed stakeholders.

Furthermore, based on the review of official statistics on forest resources as well as interviews with the forest administration, no indications of other significant reforestation activities on similar land types have been received by the auditor. The project is also considered the first of its kind as there are no other registered AR-CDM projects in Brazil up to the current date.

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

In essence, the project is considered additional as marginal sites are reforested by low-income communities which otherwise would have remained cropland or grasslands - among others due to unavailability of funding for such reforestation activities.

### **3.7 Monitoring plan**

The monitoring plan presented in the PDD complies with the requirement of the methodology and the CDM Modalities and Procedures.

The assessment team has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant for the project activity have been found in the monitoring plan. For the monitoring of carbon stock changes the requirements and parameter list as per methodology were followed. Monitoring of GHG emissions and leakage was included as detected to be relevant for the project context.

The monitoring plan was included to the project documentation. The boundary and management monitoring was defined specifically for the project context. In general, synergies are expected with the projects Standard Operating Procedures (SOP) as established under FSC for this project.

The sampling design was reviewed onsite. It was found that the plots were randomly located in the project area while the methodology mentions that the plots 'should' be systematically located with a random start. In situ, plot centres are fixed and plot size may change in line with minimal amount of trees included (similar to i.e. AR-AM0004), which is a standard process in plantation forests. Good practice in forest inventory was demonstrated and the project showed to dispose of well developed forest expertise for these purposes.

The procedures have been revised by the assessment team through document review and/or interviews with the relevant personnel; this information together with a physical inspection allows the assessment team to confirm that the proposed monitoring plan is feasible within the project design.

Further specification of the available SOP (currently mostly FSC specific) towards full scale carbon monitoring SOPs prior to first verification is recommended.

The major parameters to be monitored have been discussed with the PPs inventory processes, the data management and in general the quality assurance and quality control procedures to be implemented in the context of the project.

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

### **3.8 Local stakeholder consultation**

The stakeholder process was carried out in line with PDD guidance as well as the requirements of the DNA in Brazil and was found to be documented through evidence on the consultation process (Annex 2, IRL item 32, 33)

The assessment team has 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 has been cross check with the documentation of the stakeholder consultation and it is found to be complete.

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

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

### **3.9 Environmental and socio-economic impacts**

The PP has undertaken 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.

The Environment Impact Study for the project activity and the corresponding Licences (Annex 2, IRL item 5,6 and 7) confirm the correctness of the approach used. The PP is considered to have followed the requirements of the host country regarding the environmental and socio-economic impact assessment. The environmental and social impacts of the project were analyzed in detail by the EIA elaborated for the project as well as in the context of FSC certification (Annex 2, IRL item 11).

Through the EIA the project is obliged to carry out several mitigation measures. Compliance of these measures is subject to the renewal of the licence. The audit team requested that a valid environmental licence and key parameters as defined by the EIA are going to be monitored as part of the CDM project. The monitoring plan was adapted accordingly.

It was noted that FSC requirements have lead to the set-aside of larger fractions of land (not part of the CDM boundary) as conservation areas. Furthermore, transparency was increased by the inclusion of a matrix on main environmental impacts to the PDD and further background information was provided through Annex 6 in which sustainability impacts are described. The impact assessment is concluded to be in line with CDM requirements.

## 4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

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

The following table presents all gathered key information:

<b>webpage:</b> <a href="http://www.netinform.net/KE/Wegweiser/Guide2_3.aspx?ID=4942&amp;Ebene1_ID=26&amp;Ebene2_ID=1529&amp;mode=0">http://www.netinform.net/KE/Wegweiser/Guide2_3.aspx?ID=4942&amp;Ebene1_ID=26&amp;Ebene2_ID=1529&amp;mode=0</a>	
<b>Starting date of the global stakeholder consultation process:</b> 28 May 2008 - 11 July 2008	
<b>Comment submitted by:</b> -	<b>Issues raised:</b> -
<b>Response by TÜV SÜD:</b> -	

As requested by EB, a repeated stakeholder process was carried out between 14 April 2010 and 28 May 2010.

Due to the abundancy and length of the comments, they are presented and discussed in Annex 3 to this report.

It was concluded that the comments provided do not result in a change of the validation opinion presented in previous versions of this report. The validation opinion remains positive.



## 5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil

Standard auditing techniques have been used for the validation of the project. Methodology-specific customized checklists and protocol for the project have been prepared to carry out the audit in order to present the outcome in a transparent and comprehensive manner.

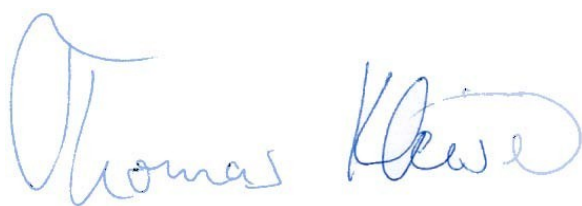
The review of the project design documentation, subsequent follow-up interviews and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD will recommend 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. Emission reductions 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 emission reductions as specified within the final PDD version.

The validation is based on the information made available to us, 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. TÜV SÜD can therefore not be held liable by any party for decisions made, or not made, based on the validation opinion beyond that purpose.

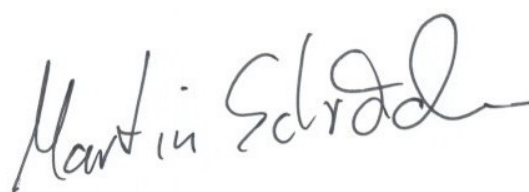
Munich, 16 July 2010

Munich, 16 July 2010



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



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Assessment Team Leader

## **Annex 1: Validation Protocol**



## Validation Protocol

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**Table 2: Requirement Checklist**

CHECKLIST QUESTION	Ref.	MoV	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	DR	Yes, the project is clearly identifiable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Are there any indication concerning the revision number and the date of the revision?	2	DR	Yes, version number and date is consistent. Initial version has been version 01, dated March 4 <sup>th</sup> 2008	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is this consistent with the time line of the project's history?	2	DR, IV	Yes, timeline is consistent. The project started early (in 2000) and thus the PDD was developed after project initiation.	<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, 4,5,6	DR, IV	The PDD section includes a summary on the objective – which is the increase of carbon stocks and the supply of wood for charcoal production - as well as the general processes and how the project is carried out.  The project activity started in 2000 and has a planting area of 11.711 ha. The project activity focuses on the installation and management of Eucalyptus plantations with a 7 year rotation.  In the interviews the project participants pointed out that the project is designed as one element of a set of different CDM projects. Further CDM project activities of the participant are related to the improved production of	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Ref. = Reference as included to Information Reference List; MoV = Means of verification (Document Review / DR; Interview / IV)

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			<p>charcoal and as well as the use of charcoal in iron production.</p> <p>The participants underlined that the key intention is and the production of sustainable wood sources. It was stated and underlined with sources that on a national level wood used for charcoal and iron production are partly not from sustainable sources – respectively regular coal is used. Thus, the project intends to promote the use of charcoal from sustainable production for iron production.</p> <p>With a general view on the Brazilian forestry sector, the presented arguments, that the increase of wood from well managed plantations will reduce pressure on native forests and are capable to substitute fossil fuels, are considered applicable.</p> <p>Sustainable Development contributions are indicated. Most important aspect is the creation of about 1000 jobs by the entire activity (not only plantation). The latter is underlined by FSC certification, which is held with a valid certificate at the point of validation.</p> <p>The project host undertakes several activities that may be interpreted to be related to sustainable developments, such as increased productivity of land, creation of jobs, initiatives related to health and education for employees and partly beyond.</p> <p>Compare sections F-H, and for environmental monitoring see page 24 of PDD.</p>		

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS			Draft Concl	Final Concl						
A.3 Project participants													
Have the Parties and project participants participating in the project been listed in the table as required?	2	DR	Yes, parties and participants have been indicated correctly.			☑	☑						
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	DR	For registration a Letters of Approval remain to be submitted, including authorization of the participants. Letter of approval by Netherlands was received.			☑	☑ (LoA from Brazil with registration)						
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	DR	<div>Yes, all criteria a complied with. For forest definition see <a href="http://cdm.unfccc.int/DNA/ARDNA.html?CID=30">http://cdm.unfccc.int/DNA/ARDNA.html?CID=30</a></div> <table><tr><td><b>single minimum tree crown cover value between 10 and 30 per cent</b></td><td><b>A single minimum land area value between 0,05 and 1 hectare</b></td><td><b>A single minimum tree height value between 2 and 5 metres</b></td></tr><tr><td>30</td><td>1</td><td>5</td></tr></table>			<b>single minimum tree crown cover value between 10 and 30 per cent</b>	<b>A single minimum land area value between 0,05 and 1 hectare</b>	<b>A single minimum tree height value between 2 and 5 metres</b>	30	1	5	☑	☑
<b>single minimum tree crown cover value between 10 and 30 per cent</b>	<b>A single minimum land area value between 0,05 and 1 hectare</b>	<b>A single minimum tree height value between 2 and 5 metres</b>											
30	1	5											
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	DR	The information on project location in regard to City/town/community has been provided in the PDD.			☑	☑						

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
A.4.2 Has an appropriately detailed geographic delineation of the project boundary including a unique identifier been included?	2, 9, 41	DR	<p>Overview maps of the two project areas are included to the PDD.</p> <p><b><u>Corrective Action Request No.1.</u></b> In regard to Maps in Figure 1 and 2, assure that all maps carry an indication of scale, coordinates (i.e. Long / Lat) and the Datum used.</p> <p><b><u>Corrective Action Request No.2.</u></b> Separate maps for MG 03 and 04 shall be included to the PDD as these compound areas also contain several discrete sites (in small distance to each other). Assure for labelling of each discrete site in these maps. (to be put here or in Annex). Indicate total area per unit MG 03 and MG 04.</p>	CAR 1 and CAR 2	<input checked="" type="checkbox"/>
AR-AM0005, section II.1					
Is the project boundary under control of the participants geographically delineated? (using adequate sources remote sensing, certified top. maps, official records, etc; georeferenced, preferably in digital)	2,15, 9	DR	<p>The area on which the activities are carried out have been acquired by Plantar for this particular purpose. Thus all lands are in ownership of this participant. The latter has been sustained by contracts of acquisition and land titles (inscribed in land registry). Land contracts have been reviewed for the project area.</p> <p>The inscription of the title (escritura) process at the locally administration in charge has not been completed for all areas, especially in MG04.</p> <p>Boundaries and divisions between the different stands,</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			<p>locally called Talhaos, were terrestrially compiled through a topographic assessment. It is considered that precision work was carried out.</p> <p>The boundary and divisions were reconfirmed by the auditor team through some 30 GPS points and consistency with information maintained in project GIS was confirmed.</p> <p>Boundary and limits are digitally available. It is considered necessary</p> <p><b>Observation:</b> The completion of the land titling process (additional to land contracts) shall be reconfirmed at verification jointly with the confirmation that there has not been any conflicts on land ownership as the basis to carbon rights.</p>		
Are the geographic coordinates of the boundary provided and included to the PDD?	2, 9	DR	<p>See Requests above on maps to be included.</p> <p>See recent guidance by AR-WG on submission of digital data on boundary.</p>	CAR 1 and CAR 2	<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, 4, 5, 6, 7,8, 14	DR, IV	<p>Climate, hydrology, soils and ecosystem (including conservation areas) are described in the PDD.</p> <p>Basic information is taken from Environmental Impact Assessment, which contains a wider analysis of the biotic and abiotic conditions in the region and the actual project area.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			<p>The EIAs were carried out by an external consultant for both areas - MG 03 and MG 04. The focus of these studies was on the total property and the activities carried out on them while only a part of the areas was found eligible for the inclusion to the present activity.</p> <p>The present land use is plantations in the entire boundary. Thus the baseline conditions had to be reconstructed based on a specific eligibility assessment using remote sensing and historic images.</p> <p>As confirmed by the information included to the EIA as well in light of the sites visited, the actual conditions are considered to be homogenous in soils, climate and relief (sustaining also the choice of only one baseline strata). Sites of different character such as for instance riverine regimes have been excluded, partly due to FSC requirements.</p> <p>Different areas not reforested are listed in table 2 of the PDD (indications refer to areas outside of boundary but associated to the project).</p>		
A.5.2 Have any rare or endangered species been defined as present?	2, 4, 5, 6, 7,8		<p>Endangered flora and fauna present in the project area, analysed through local studies as part of the EIAs for the two areas, are included to the PDD.</p> <p>The chosen reference for rare / endangered in the EIAs are endangered species lists elaborated by IBAMA.</p> <p>The EIAs and the corresponding Licences of Operation as well as FSC certification leads to management obligations</p>	<b>CAR 3</b> <b>CR 1</b>	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			<p>in regard to environmental impacts and endangered species.</p> <p>The Licences of Operation have been granted by authorities in charge, including defined requirements (among others by indicating that mitigation measures of EIA shall be implemented)</p> <p>A valid Licences and a valid FSC certificate has been reviewed.</p> <p>Extract of licences :</p> <ul style="list-style-type: none"><li>- MG 03, valid till 30/3/2012</li></ul> <p>Area util 6460,01 ha</p> <p>Data de Implantacao: 01/11/2000 data</p> <ul style="list-style-type: none"><li>- MG 04, valid till 30/9/2011</li></ul> <p>Area util 4927,13 ha</p> <p>Data de Implantacao: 01/10/2003</p> <p>FSC annual certification by the firm SCS in 2007: Certification Registration Number SCS-FM/COC-00057P for 33.214,42 ha, composed of 21.158,88 ha Eucalyptus plantation and 9.658,63 ha of conservation area and natural vegetation.</p> <p><b><u>Corrective Action Request No.3.</u></b></p> <p>A valid Operating Licence (according to EIA) shall be incorporated to the Monitoring Plan. (compare section F).</p>		

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			<b><u>Clarification Request No 1</u></b> Clarify consistency between sum of area included to Operating Licences and Project area.		
A.5.3 Have the species and varieties to be grown been adequately described?	2, 12,13	DR, IV	Different Eucalyptus species (mainly Eucalyptus Urograndis hybrid / cloned sprouts) are used. This was confirmed in site visits. Plantar maintains facilities to produce corresponding cloned sprouts.  In the onsite visits it was clarified that the stand models only differ in the clone used. 1111 plants are planted per ha in all cases. For all stands, 7 year rotation applies. Thus, that the same management procedures are applied to all stands irrelevant to the clone used (planting and harvesting procedures include use of machinery).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5.4 Has the technology to be employed (including environmentally safe and sustainable/renewable technologies) been adequately described?	2,12, 13	DR, IV	R&D on plant production is described in PDD as well as briefly the reproduction and planting process and productivity management.  <b><u>Corrective Action Request No.4.</u></b> Include a description of the planting process and its impact on soils, as well as an indication / summary on forest management activities over time and harvesting methods (i.e confirm that there is no pre-harvest thinning).	<b>CAR 4</b>	<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	DR, IV	No transfer of technology foreseen.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
A.5.6 Has the proposed measures to be implemented to minimize potential leakage been adequately described?	2, 3 10,15 ,16,1 7	DR, IV	<p>Leakage minimization is discussed in regard to transport emissions, which is a relatively small source of emissions.</p> <p>During the onsite visit it was noted and sustained with literature sources (FSC report, Scolforo 2006) that pasture is the main land use in the region. Some reforestations activities are occurring.</p> <p>Leakage due to activity displacements is indicated not to occur. The argumentation line presented by the participant is that project areas being on sale were bought particularly for the project activity and that therefore pre-project grazing is not attributable to the CDM project activity. The purchasing contracts do not include livestock.</p> <p>The audit team considers that land purchase and change of land use (grazing to reforestation) coincides.</p> <p>The previous land owners confirmed with a standard declaration that the sale of land will not lead to deforestation through their activities.</p> <p><b><u>Clarification Request No 2</u></b></p> <p>Although the tool "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity" / EB 36 is not mandatory to the chosen methodology it is considered to reflect current good practice in Leakage assessment. The participant shall discuss and clarify activity displacement of grazing in light</p>	CR 2	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			of the step wise evaluation approach included to the tool, while considering corresponding assumptions and definitions.  Compare section D.2 / Leakage assessment.		
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, 15, 16	DR, IV	All lands are owned by Plantar S.A. It is considered that the land owner hold rights to tCERs through reforestation activities, confirmed once Letter of approval is issued. Sharing of carbon rights among participants arranged through ERPAs and Modalities of Communication.	☑	☑
A.7 Assessment of the eligibility of lands					
Has the latest version of the AR eligibility procedure been applied?	2, 14, 34, 42	DR, IV	<b><u>Corrective Action Request No.5.</u></b> Clear reference (in PDD) to the latest versions of the eligibility procedure (EB 35, Annex 18) shall be taken.	CAR 5	☑
Is adequate evidence provided which demonstrates that a) the land in the project boundary is not forest at project start b) the activity is an afforestation or reforestation by indicating historic land use (reforestation: unstocked by Dec. 1989; afforestation: unstocked >50 y)	2,15, 14, 34, 42	DR, IV	The activity is a reforestation as eligibility is estimated in reference the status of 1989.  The land assessment is summarized in its results in the PDD.  In this project case, land eligibility can solely be assessed based on historic data due to the early start character of	☑	☑

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			<p>the project.</p> <p>Surrounding, non-project areas show (degraded) pasture as well as areas of Cerrado that still pass the forest definition.</p> <p>Based on the eligibility study the mapped classes High pasture, Low pasture, and Degraded areas were considered for the definition of eligible areas.</p> <p>The corresponding study and the used images were reviewed as part of the onsite assessment and are considered good practice in regard to the analysis work taken forward. The author of the study was interviewed.</p> <p>Natural vegetation was factored out by GPS and superposition with images.</p> <p>The results of the eligibility study have demonstrated that the areas have been without forest cover. The chosen approach is considered adequate.</p> <p><b><u>Corrective Action Request No.6.</u></b> Main work steps of the eligibility assessment should be included to the PDD. Include information on satellite images used (type, additional to year) and their resolution, the differentiated classes and how these classes assure to exclude vegetation that meets the national forest definition (consistency between vegetation described by classes and forest definition), and the overall classification process.</p>		

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			Elaborate on potential changes in classes between 1989 and 2000.		
Has the assessment of the eligibility of the land been adequately described?	2,15, 14, 34	DR, IV	See above	CAR 6	<input checked="" type="checkbox"/>
A.8 Approach for addressing non-permanence					
Has the approach to address non-permanence been specified (tCER, ICER)?	2	DR	tCER approach has been chosen.	<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, 18	DR,	The summary table in section A.9 has been completed and is consistent with indications in remaining PDD as well as corresponding net removal estimates.  <i>Baseline removals are set 0. If there is any change in estimates please update.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.10 Public Funding					
Is there public funding from an Annex 1 country involved, and if yes, is no an affirmation of non-deviation provided? (annex 2)	2	DR	Plantar confirmed that there is no Annex 1 funding involved. Funds are from Brazilian sources. <b><u>Clarification Request No 3</u></b> Confirmation from the Netherlands that no ODA is involved shall be submitted.	CR 3	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
<b>B. Duration of the Project Activity / Crediting Period</b>					
<b>B.1 Starting date of the project and the crediting period</b>					
Does the starting date reflect the date of implementation (or when real action began that resulted in changes to the actual net removals) and has it been adequately justified?	2, 22,23 ,24	DR	<p>The starting date is 10 November 2000</p> <p>Several documents, including i.e. a first PDD dated March 2000, indicate the consideration of the CDM previous to the indicated planting start.</p> <p>Land acquisition of those areas included to the boundary started in 2000 as confirmed by land contracts.</p> <p>In the pre-project scenario of AR activities only those lands were reforested that have been already in property of Plantar. These lands were covered with exhausted plantations.</p> <p><b><u>Clarification Request No 4</u></b></p> <p>Underline with further evidence and elaborate in the PDD, how the specific starting date was defined (Start of plantings?).</p>	CR 4	<input checked="" type="checkbox"/>
<b>B.2 Expected operational lifetime</b>					
Has the expected operational lifetime been defined?	2	DR	30 years	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.3 Choice of crediting period</b>					
Is the project fixed or renewable and does it has an appropriate crediting period length defined (in years and months)?	2	DR	Fixed crediting period is chosen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
<b>C. Application of Baseline and Monitoring Methodology</b>					
<b>C.1 Title and reference of approved methodology</b>					
Has the approved methodology and any other methodologies or tools used been properly referenced (including version no.)?	2	DR	<p>Yes, the methodology is referenced. AR-AM0005 Version 01 is chosen in combination with the AR Additionality tool version 02.</p> <p>The tool to test the significance of GHG emissions is not required by the methodology, but it is indicated that it is applied. Applicability of a tool not foreseen by the methodology was discussed during the onsite visit.</p> <p><b>Clarification Request No 5</b> Please clarify if the tool for the test of significance of emissions will be considered and too which extend this leads to the non-consideration of emissions.</p>	CR 5	<input checked="" type="checkbox"/>
Has the most current version of the methodology been used (consider also PDD formats, eligibility tool, AR additionality tool)?	2	DR	<p>Yes, the most current versions have been applied.</p> <p><b>Corrective Action Request No.7.</b> The front page of the PDD contains the indications that there is an Annex 5 and 6. Please include corresponding Annex, or erase.</p>	CAR 7	<input checked="" type="checkbox"/>
<b>C.2 Assessment and justification of selected methodology</b>					
<b>AR-AM0005, section I (applicability criteria)</b>					
Does the project use the baseline approach from paragraph 22 of the CDM A/R modalities and procedures: Changes in carbon stocks in the pools within the project boundary from	2	DR	The project does consider the baseline approach of the most likely land use at project start.	CAR 8	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
the most likely land use at the time the project starts”?			Compare Request below on role of reforestation rates.		
Is the selected project an afforestation or reforestation activity undertaken to meet commercial or industrial needs?	2	DR	The AR project is designed to produce wood for fuel use. In previous sections on eligibility it was clarified that the project classifies as reforestation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is one of the following baseline scenarios complied with: 1. maintenance of unmanaged or extensively managed grassland (with low soil carbon content) 2. afforestation and reforestation activities undertaken intermittently prior to AR project.	2, 15,14 19	DR, IV	<p>Considering the results of the eligibility study, the baseline requirements in regard to grassland / pastureland is considered to be complied with.</p> <p>It is indicated in the PDD and confirmed by the participant in interviews that the areas included to the project have been acquired specifically for the purpose of reforestation, and that the land use before project start has been grazing / pasture. This is considered credible in light of the timing of the land acquisition and the general timeline of the CDM project.</p> <p>The present reforestation activity focuses at the production of wood for industrial purposes (Note that in Brazil the statistics on plantations are frequently specified per specific type of demand (i.e.pulp / charcoal), which may be partially explained by the absence of wider and established markets for plantation wood).</p> <p>In the PDD and sustained with sources data is presented on reforestations areas in the State of Minas Gerais, indicating that the corresponding total has been decreasing since the stop of subsidy lines at around 1998.</p>	<b>CR 6 CAR 8</b>	<input checked="" type="checkbox"/>

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			<p>On the national level statistics are available which sustain that the use of wood for iron production is increasingly from native forests (which might be partially from non-sustainable management)</p> <p>An obligation by law to sustain wood demand from planted sources was established in 1991 (compare additionality section).</p> <p>During the onsite visit, some other than the project's reforestation were witnessed in the region.</p> <p>Figure 10 / table 7 of the PDD include indications on reforestation rates by the participant. The average reforestation rate in the decade prior to project start has been 506 ha. In 1999 the planted area was 1626 ha (including all types of areas)</p> <p><b><u>Clarification Request No 6</u></b> It shall be elaborated in the PDD and clarified, how the baseline reforestation rate of Plantar / the participant (compare Figure 10 / table; including plantings on non eligible areas) has developed over time after the claimed project start. This is to be put in the context of the Request on the regional reforestation rate (See Request below)</p> <p><b><u>Corrective Action Request No.8.</u></b> The baseline reforestation rate shall be specifically assessed for the region. <i>In line with the methodology,</i></p>		

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl								
			<i>project participants must provide an estimate of the average regional (and project entity-specific) annual rates of A/R activities in the absence of the proposed A/R CDM project activity, so that it is considered within the listing of plausible land-use alternatives in Step 5 / baseline definition, If there is a reforestation rate in the region, these shall be considered.</i>										
The land cover within the project boundary is in steady state either as unmanaged or extensively managed grassland.	2, 15	DR	<table border="1"><tr><td>Incl. to PDD</td><td>Rationale / Assumptions referenced</td><td>Evidence Provided</td><td>Conclusion</td></tr><tr><td><input checked="" type="checkbox"/></td><td>No</td><td>No</td><td>Not demonstrated</td></tr></table> <p>It has been demonstrated that the project area has been covered with different types of grassland before project start.</p> <p><b><u>Corrective Action Request No.9.</u></b> Compliance with the aspect of steady state to be clarified and corresponding explanations to be included to the PDD. The evidence utilized to demonstrate compliance shall be indicated and made available.</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	No	No	Not demonstrated		<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	No	No	Not demonstrated										
Lands will be afforested or reforested by direct planting and/or seeding.	2	DR	<table border="1"><tr><td>Incl. to PDD</td><td>Rationale / Assumptions referenced</td><td>Evidence Provided</td><td>Conclusion</td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl								
			Direct planting is ongoing, as foreseen in the projects Management Plan. Second rotation will be based on re-sprouting.										
Natural regeneration is not expected to occur in the project area because of the absence of seed sources or because land use practices do not permit the establishment of tree vegetation.	2	DR	<table><tr><td>Incl. to PDD</td><td>Rationale / Assumptions referenced</td><td>Evidence Provided</td><td>Conclusion</td></tr><tr><td><input checked="" type="checkbox"/></td><td>No</td><td>No</td><td>Not demonstrated</td></tr></table> <p>It was not possible to trace the presence of regeneration in the project area due to the early start character of the project. On a technical level, it is considered credible that there has not been regeneration of trees while grazing was ongoing.</p> <p><b><u>Clarification Request No 7</u></b></p> <p>Please indicate average grazing intensity in the region in order to sustain hypothesis of non-existence of regeneration. Discuss the possibility of regeneration per baseline strata (including degraded land).</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	No	No	Not demonstrated	CR 7	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	No	No	Not demonstrated										
Carbon stocks in soil organic matter, litter and deadwood can be expected to decrease more or increase less in the absence of the project activity.	2,19	DR	<table><tr><td>Incl. to PDD</td><td>Rationale / Assumptions referenced</td><td>Evidence Provided</td><td>Conclusion</td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>Scientific evidence is considered to underline the likely</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl								
			increase of soil carbon under the project case. The studies presented are considered applicable to the project case.										
Grazing will not occur within the project boundary once the project commences; the total number of grazing animals is not increased compared to the pre-project conditions and thus non-CO <sub>2</sub> emissions from displaced livestock are not accounted as leakage; Is corresponding evidence provided?	2	DR, IV	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>No grazing in project areas foreseen or witnessed. .</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
Flooding irrigation is not permitted;	2, 13	DR	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>Local irrigation only in first three months. SOP for operation of irrigations available. No indications of further irrigation witnessed.</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<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, 3,4	DR	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>Mainly Oxisols prevail. No wetland areas included (also due to FSC requirements).</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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			EIA includes details on soils. Some site preparation occurs strip-wise. Impact on soil carbon is considered insignificant.										
The amount of nitrogen-fixing species (NFS) used in the AR CDM project activity is not significant	2	DR, IV	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>No indications on NFPs found. No other species are planted in the project area.</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
A Geographical Information System for the management of spatial data is installed	2	DR, IV	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table> <p>The project maintains a GIS department, which includes the boundary and other spatial data.  The corresponding data output data was reviewed.</p>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
The project activity may not include the following: Pre-project activities such as grazing cannot be conceptually linked to households that are shifted from the project area.	2	DR, IV	<table><tr><th>Incl. to PDD</th><th>Rationale / Assumptions referenced</th><th>Evidence Provided</th><th>Conclusion</th></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr></table>	Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Incl. to PDD	Rationale / Assumptions referenced	Evidence Provided	Conclusion										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl																																																								
			Previously employed staff lived on the farms. They left after Plantar bought the project area. Compare section on Leakage.																																																										
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, 18	DR, IV	<table><tr><th>Carbon pools</th><th>Selected</th></tr><tr><td>Above ground</td><td>Yes</td></tr><tr><td>Below ground</td><td>Yes</td></tr><tr><td>Dead wood</td><td>No</td></tr><tr><td>Litter</td><td>No</td></tr><tr><td>Soil Organic Carbon</td><td>No</td></tr></table> <table><tr><th>Sources</th><th>Gas</th><th>Included to meth.</th><th>Con-clusion</th></tr><tr><td rowspan="3">Combustion of fossil fuels</td><td>CO2</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td>CH4</td><td>No</td><td><input checked="" type="checkbox"/></td></tr><tr><td>N2O</td><td>No</td><td><input checked="" type="checkbox"/></td></tr><tr><td rowspan="3">Burning of biomass</td><td>CO2</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td>CH4</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td>N2O</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td rowspan="3">Use of fertilizers</td><td>CO2</td><td>No</td><td><input checked="" type="checkbox"/></td></tr><tr><td>CH4</td><td>No</td><td><input checked="" type="checkbox"/></td></tr><tr><td>N2O</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td rowspan="3">Removal of pre-existing non-tree vegetation</td><td>CO2</td><td>Yes</td><td><input checked="" type="checkbox"/></td></tr><tr><td>CH4</td><td>No</td><td><input checked="" type="checkbox"/></td></tr><tr><td>N2O</td><td>NO</td><td><input checked="" type="checkbox"/></td></tr></table> <p>The pools as defined per methodology are considered.</p>	Carbon pools	Selected	Above ground	Yes	Below ground	Yes	Dead wood	No	Litter	No	Soil Organic Carbon	No	Sources	Gas	Included to meth.	Con-clusion	Combustion of fossil fuels	CO2	Yes	<input checked="" type="checkbox"/>	CH4	No	<input checked="" type="checkbox"/>	N2O	No	<input checked="" type="checkbox"/>	Burning of biomass	CO2	Yes	<input checked="" type="checkbox"/>	CH4	Yes	<input checked="" type="checkbox"/>	N2O	Yes	<input checked="" type="checkbox"/>	Use of fertilizers	CO2	No	<input checked="" type="checkbox"/>	CH4	No	<input checked="" type="checkbox"/>	N2O	Yes	<input checked="" type="checkbox"/>	Removal of pre-existing non-tree vegetation	CO2	Yes	<input checked="" type="checkbox"/>	CH4	No	<input checked="" type="checkbox"/>	N2O	NO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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			<p>The sources as per methodology are included. No intentional burning foreseen by the project. Project area un-intentionally burnt is monitored for the complete property. One severe event happened in 2007. Fire brigade is installed and specific fire management plan available. During the onsite visit, corresponding infrastructure and equipment has ben present.</p> <p>Fertilizer application / N2O is considered in TARAM calculations.</p> <p>No cleaning of natural vegetation foreseen. It was not fully possible to trace the latter. On project area, no stumps of older and cut trees from previous vegetations were witnessed.</p> <p>See above on details of boundary definition.</p>		
C.4 Description of ex ante stratification					
AR-AM0005, section II.3					
Has a hierarchical approach been used for the stratification as defined by the methodology (regional to local data) and is the strata size not smaller than the area indicated by the national forest definition?	2	DR	<p>A step wise approach has been followed. Project plot areas are all larger than the forest definition.</p> <p><b><u>Corrective Action Request No.10.</u></b> (applicable to entire stratification process) Compliance with requirements of individual stratification steps shall be documented in the PDD (in further detail), allowing to assess compliance with methodology requirements. Section C.4 of checklist enumerate the details, which are</p>	CAR 10	<input checked="" type="checkbox"/>

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
			expected to be covered in the PDD. The actual information / maps shall be included to the PDD (rather than indication "will be made available to DOE".		
<b>Step 1: Stratification taking into account pre-existing conditions and likely evolution of baseline (priority on regional sources)</b> <ul style="list-style-type: none"> <li>Are the variables influencing carbon stocks identified (land use, soil, climate, vegetation, etc)?</li> <li>Has the baseline information reflecting the status of grassland been collected from the most recent land use/cover maps, satellite images, soil, and vegetation maps?</li> <li>Has data on pre-existing conditions of the grasslands in terms of its vegetation and composition been collected in order to demonstrate steady grasslands?</li> <li>Has the information on the pre-project status of (managed / extensive) grassland been collected from official data sources?</li> <li>Has preliminary stratification been carried out based on data on the pre-existing conditions of grasslands and on the pre-project use of grasslands?</li> <li>Has the specific <u>features</u> of the stratum levels been identified e.g. on vegetation type, land tenure, etc.?</li> <li>Can the differences in the strata demonstrate that the grassland areas are in steady state and/or under extensive management, and/or in a degraded state and/or with isolated vegetation that is expected to remain in such states in the future?</li> </ul>	2,15, 38	DR	(See CAR 10)  The project areas includes the strata <ul style="list-style-type: none"> <li>- high pastureland</li> <li>- low pastureland</li> <li>- degraded areas</li> </ul> The stratification was carried out for the areas MG03 and 04.	CAR 10	<input checked="" type="checkbox"/>

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<ul style="list-style-type: none"> <li>When the analysis of preliminary data reflects significant variation within the strata has further stratification been carried out, and has a systematic sampling been carried out?</li> <li>Are the strata identified and their respective areas indicated?</li> </ul>					
<b>Step 2: Criteria of stratification to be considered in the proposed CDM A/R project activity</b> <ul style="list-style-type: none"> <li>Have the species and stand characteristics been specified (per site / of one plating year; of similar growth)?</li> <li>Have the silvicultural/management details been considered (age class/ fertilizer/rotation etc)?</li> <li>Is the temporal and spatial information on the plantation establishment specified including date, area, and geographic location?</li> <li>Have the factors affecting actual net GHG removals by sinks been reflected in the stratification (i.e combining strata of similar growth).</li> </ul>	2	DR	(See CAR 10)  Due to the highly similar soil formations, same capacity in production and growth is assumed.  Planting density of 1111 plants per hectare for all clones applied. Management is equal for all types of clones / strata.  Clones have similar growth parameters. Only different wood densities (DW) exist among clones / Strata (8 different wood densities).	CAR 10	<input checked="" type="checkbox"/>
<b>Step 3: Ex ante stratification of A/R CDM project activity taking into account the stratification criteria and land use within the project boundary</b> Has the boundary of each stratum been delineated using land-use maps or geo-referenced data and is it consistent with the parcels identified for the project.	2,14, 38	DR	(See CAR 10) Eligibility study divides different land uses.	CAR 10	<input checked="" type="checkbox"/>
<b>Step 4: Preparation of ex ante stratification map</b> Has a stratification map showing different strata and their characteristic features been prepared?	2,14	DR	See CAR 10 Map on results of eligibility study were reviewed. Maps to be included to PDD.	CAR 10	<input checked="" type="checkbox"/>

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<b>Step 5: The changes to A/R project after the adoption of ex ante stratification shall be recorded</b> Have / Will the relevant changes that occur during project activity implementation (after the ex ante stratification) been / be recorded? <i>(Relevant for monitoring stage)</i>	2	DR	See CAR 10 <b>Clarification Request No 8</b> Clarify and potentially include to Monitoring Plan the monitoring of the strata.	CAR 10 CR 8	<input checked="" type="checkbox"/>
Are the results of the stratification included to the PDD?	2	DR	See CAR 10	CAR 10	<input checked="" type="checkbox"/>
C.5 Identification of baseline scenario					
C.5.1 Description of the application of the procedure to identify the most plausible baseline scenario	2	DR	Step Wise approach has been followed (6 steps)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AR-AM0005, section II.4					
<b>Step 1 Demonstration of the most likely land use at the time of the project starts</b> Is it demonstrated that the relevant lands would remain under the existing grassland use? Has this been demonstrated by at least one of the following <ul style="list-style-type: none"> <li>General – demonstrating that areas under similar land use in the vicinity are not expected to change. The barriers preventing alternatives can be identified.</li> <li>Specifically for forest (step 2/3 of add. tool)</li> <li>Specifically for other alternatives (step 2/3 of add. tool)</li> </ul>	2	DR, IV	Different sources on areas of forest and other land uses are given for the state level of Minas Gerais.  77 % of the areas of the Municipalities relevant to the project are pasture (Scolforo).  The same author notes noted a 2,6 % increase in reforestation from 2003 -2005 in Minas Gerais.  The project areas are classified to 47% grassland and 53 % degraded land (eligibility study)  Land use of vicinity remains to be clarified in line with CR 6 / CAR 8	See C.2  CR 6 CAR 8	<input checked="" type="checkbox"/>
Have adequate sources been used in the analysis process for the most likely baseline scenario (archives,	2,14	DR, IV	See eligibility test for baseline grassland definition. Adequate sources are used in this context.	CR 6 CAR 8	<input checked="" type="checkbox"/>

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maps, images, etc)?					
<b>Step 2 Assessment of national and sector policies and legislation</b> a) Policies related to the creation of wood sources <ul style="list-style-type: none"> <li>Have the national or sector policies with direct influence on land use in the context of the A/R CDM project activity been considered?</li> <li>Have the applicable policy incentives and constraints been analyzed (based on the decision 17/CP. 7, 11 November 2001) by the project participants?</li> <li>If applicable, have policies in the competing industries or commercial end-uses been considered?</li> <li>Have the project participants identified and analyzed specific policy contexts that had implications for A/R activities in the past or expected to have in the future?</li> </ul>	2, 20	DR, IV	<p>Information on national and state programs on plantations is included to the PDD.</p> <p>The information is considered consistent and complete.</p> <p>It has been indicated that there is currently no subsidy program is in place in Brazil, which is directed to large scale reforestation for industrial / energy purposes. Among others, the Brazil's Contribution To Prevent Climate Change / Whitepaper of 2007 underlines the decreasing reforestation activities since 2000.</p> <p><b><u>Corrective Action Request No.11.</u></b>            Adapt Figure 6 and clarify the covered years (currently years not readable in graphic). If a drop in plantation cover in documented (only) until 1998 for Minas Gerais, please further elaborate on development of plantation areas in posterior times (p. 27 i.e. indicates a rise since 2001 for Brazil)</p>	CR 11	<input checked="" type="checkbox"/>
b) Legislation related to the requirements of A/R activities and wood use <ul style="list-style-type: none"> <li>Have the project participants made an assessment of the impacts of prevailing legislation on the A/R activities, including the mandatory requirements on the land uses?</li> <li>If applicable, has evidence on the non-compliance</li> </ul>	2	DR, I V	<p>An overview on the analyzed legislation is provided in the PDD.</p> <p>The project participant is not obliged to use charcoal (rather than fossil coal). Thus, it is argued that the requirement to auto-sustain production with wood from planted sources (established in 1991 in Mina Gerais) does not necessarily result in reforestations.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<p>been presented if widespread non-compliance is observed?</p> <ul style="list-style-type: none"> <li>Has an analysis of the national policies and regulations related to natural forests and A/R activities, and their implications in terms of demand and supply of forests products and the impacts of on the existing and future land uses been presented?</li> </ul>			(compare section on additionality)		
<p>c) Other policy incentives and constraints</p> <ul style="list-style-type: none"> <li>Has the macroeconomic and sector policies related to credit, marketing and technology been evaluated in order to assess the influence multi-sector policies on the land use for forestry?</li> </ul>	2	DR, IV	As other programmes in favour of plantations Pronafi and Propflora have been highlighted – which are federal programmes directed to smallholders These are not applicable to the industry sector.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>Step 3 Assessment of demand and supply of wood resources for industrial and commercial purposes</b></p> <ul style="list-style-type: none"> <li>Has an analysis of demand and supply balance of wood sources for industrial and commercial purposes been done?</li> <li>Has long-term data for identifying the land use and plantation establishment trends been used?</li> </ul>	2	DR,I V	<p>An overview on type of wood (native / plantation) used for charcoal production in Brazil is given.</p> <p>70% of nations charcoal production of the country is located in Minas Gerais .</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p><b>Step 4 Assessment of land-use practices and prevailing land uses in the project region</b></p> <ul style="list-style-type: none"> <li>Have the project participants assessed the previous land uses in the region and the project area, and the management practices that are likely to impact the carbon stocks of the prevailing land uses now and in the future?</li> <li>Have the impact of policies and regulations been assessed in order to guide the choice of the most likely land uses?</li> </ul>	2, 16	DR, IV	<p>No data on reforestations in actual project region included to initial PDD. Table 7 remains to be updated</p> <p>According to the participants, there is currently no promoting policies for reforestations in place. It is argued that thus an incentive for the increase utilization of coke exists.</p> <p>Figure 8 includes total of reforestation for energy in Brazil</p>	<b>CR 6 CAR 8</b>	<input checked="" type="checkbox"/>

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<ul style="list-style-type: none"> <li>Is there an explanation on how the incentives and constraints identified in Step 2, impact on land uses within the project area (if applicable)?</li> <li>Is there an estimate of the average regional and project entity-specific annual rates of A/R activities in the absence of the proposed A/R CDM project activity?</li> <li>Has the analysis focused on the rate of A/R activities that is likely to occur in the absence of the A/R CDM project activity?</li> </ul>			<p>till 2004</p> <p>(include in response to CR 6 / CAR 8 the compliance with step 4 of definition of baseline)</p>		
<p><b>Step 5 Identification of plausible and credible land-use alternatives</b></p> <ul style="list-style-type: none"> <li>Has the identification of plausible and credible land-use alternatives been based on the scope of maintaining current land use, including the possibility of undertaking A/R as per the applicable trends?</li> <li>If there are no specific geographic trends in the pre-project A/R activities, has it been applied in proportion to all projects parcels? (as considered likely to be affected by the policies adopted prior to Nov 11, 2001)</li> </ul>	2	DR, IV	<p>Three scenarios have been identified:</p> <ol style="list-style-type: none"> <li>1. Maintaining current land use without plantations to supply iron production</li> <li>2. AR activities at intermittent rates</li> <li>3. Large scale plantation / The project activity without CDM component</li> </ol> <p>There is no relation of baseline scenario to specific strata established. No AR baseline activities initially considered.</p> <p>Compare Requests on participants and regional reforestation rate.</p>	<b>CR 6 CAR 8</b>	<input checked="" type="checkbox"/>
<p><b>Step 6 Identification of the most likely land-use</b></p> <ul style="list-style-type: none"> <li>Has the most likely land-use form among the alternatives (listed in the project boundary at the start of the A/R CDM project) been identified as the baseline scenario?</li> </ul>	2	DR, IV	<p>In the initial PDD it is argued that the complete absence of reforestations is the most likely baseline scenario.</p> <p>The most likely baseline scenario is considered to be: Maintaining current land use without plantations to supply</p>	<b>CR 6 CAR 8</b>	<input checked="" type="checkbox"/>

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<ul style="list-style-type: none"> <li>Is it demonstrated that in the absence of the proposed A/R CDM Project activity, the most likely land-use would correspond to the plausible scenario "grassland"?</li> </ul>			iron production		
C.5.2 Is the description of the baseline scenario applying to each stratum reasonable?	2	DR	Matching of baseline results with stratification results  <b>Clarification Request No 9</b> In section C.5.2 it is considered necessary to review terminology (strata as per stratification versus baseline scenario to be defined in this chapter). Defined baseline scenario per strata needs to be indicated.	CR 9	<input checked="" type="checkbox"/>
C.6 Assessment and demonstration of additionality					
<b>Additionality (tool) Vers.2</b>					
<b>Step 0. Preliminary screening</b>					
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: a) Has evidence been provided that the starting date of the A/R CDM project activity was after 31 December 1999, 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).	2, 21, 22, 23,	DR, IV	Evidence on CDM consideration in context of early project start has been made available.  Among others, a letter of no objection by the DNA was elaborated prior to project start.	CR 4	<input checked="" type="checkbox"/>
<b>Step 1. Realistic and Credible Alternatives to the A/R project activity consistent with the current laws and</b>					

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<b>regulations</b>					
<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 socioeconomic and ecological conditions to the proposed A/R CDM project activity occurring in a period since 31 December 1989, as selected by the PP.</li> </ul> </li> </ul>	2, 26	DR, IV	<p>See above on Consideration of pre-project reforestations</p> <p>For small reforestation no licenses would be needed. The reforestations included to the project activity count with the corresponding EIA and valid operation licenses.</p>	CR 6 CAR 8	<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. prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area;</p>	2, 20	DR IV	<p>All alternatives (same as defined baseline scenarios) are considered to be in line with legal requirements.</p> <p>In section C.5.1 of the PDD it is indicated that there is a legal obligation in Minas Gerais since 1991 that wood for industrial sources is provided from planted sources.</p> <p>In this context it is underlined that enforcement of proof of sustainable sources is becoming increasingly enforced.</p>	CR 10	<input checked="" type="checkbox"/>

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			<p>In reaction it is argued, that an increasing number of iron producers opt for coke.</p> <p>Particularly in section C.6 / step 4 it is indicated with a quote from the white book that apparently several pig iron producers have opted towards coke as reducing agent (rather than also installing plantations).</p> <p><b>Clarification Request No 10</b></p> <p>Please indicate in further detail why the project activity is not a legally required activity (in light of legislation from 1991)</p>		
Is the project scenario not the only remaining alternative?	2	DR IV	No, the project scenario is not the only remaining scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Step 2: Investment analysis</b>					
In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	n/a	n/a	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	n/a	n/a	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV,	n/a	n/a	n/a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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payback period or cost benefit ratio which is most suitable for the project type and decision making)?					
In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, payback period, cost benefit ratio, or (levelized) unit cost)?	n/a	n/a	n/a	☑	☑
In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	n/a	n/a	n/a	☑	☑
In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	n/a	n/a	n/a	☑	☑
Is a sensibility analysis included? Is the outcome of the sensitivity analysis that the proposed AR project activity would unlikely be financially most attractive? (Yes→ proceed with step4(Common practice analysis); No→ Step3 (barrier analysis) is mandatory)	n/a	n/a	n/a	☑	☑
<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 48-51	DR, IV	Yes a list of barriers is developed and included to the PDD. The identified barriers are: <ul style="list-style-type: none"> <li>Investment barrier, including lack of attractiveness and lack of access to credit financing</li> <li>Prevailing practices</li> </ul>	<b>CR 11</b>	☑

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			<ul style="list-style-type: none"> <li>• Management and institutional risks</li> <li>• Risks related to regulatory schemes and changes in government policies or laws.</li> <li>• Inherent market risk</li> </ul> <p>The project is financed by sources from a private bank (which became involved in light of carbon finance component, carbon finance by Worldbank, as well as state subsidies (Proflorestas Programm) .</p> <p>During the onsite visit it was clarified that the participant considered the investment risk the most substantial barrier.</p> <p><b>Clarification Request No 11</b></p> <p>Independent evidence on the existence and the prohibitive character of each of the barriers included to the PDD shall be provided. Further elaborate and discuss how the different alternatives are prevented by these barriers (as included to table 9)</p>		
In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	2	DR; IV	<p>During the onsite visit it was furthermore indicated by Plantar staff that</p> <ul style="list-style-type: none"> <li>- the production of wood sources is complicated in comparison to coke acquisition.</li> <li>- different incentives to use coke are in place – i.e. for late payments and low transport costs for coke</li> <li>- the current project would be the first of its kind in the CDM context.</li> </ul>	CR 11	<input checked="" type="checkbox"/>

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In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	2	DR; IV	The barriers do not apply to the (current baseline) scenario: continuation of grazing.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<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	DR; IV	Iron steel industry and its capacity is discussed. Reference is taken to the statistics presented in earlier sections on the pig iron sector and its shortages in supply with charcoal. It is underlined that the use of charcoal is not common practice in the sector.  No indications are included to the regional relevance of plantations for energy use. Regional reforestation rates remain to be clarified in line with earlier Requests.	<b>CR 6 CAR 8</b>	<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, 18, 40	DR	<b><u>Corrective Action Request No.12.</u></b> Compliance with the requirements of section II.5 (Estimation of baseline net GHG removals by sinks) of the methodology shall be discussed in detail (including presence of individual trees). Consistency with (an improved) baseline study is to be assured. .	<b>CAR 12</b>	<input checked="" type="checkbox"/>
<b>AR-AM0005, section II.5 (Estimation of baseline net GHG removals by sinks)</b>					
Is the baseline net GHG removal set zero under the baseline scenario, maintenance of grassland in its state? (formula B.2)	2, 18	DR	Baseline removals in grassland areas are set zero.  (In regard to consideration of present stocks according to baseline study see Request below)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Have the changes in carbon stocks of the living biomass for isolated trees (if present in the area) been estimated? (formula B.3)	2, 18	DR	See above / CAR 12	CAR 12	<input checked="" type="checkbox"/>
Has the pre-project reforestation rate been estimated and frozen over the crediting period?	2, 18	DR	See above / CAR 12	CR 6 CAR 8 CAR 12	<input checked="" type="checkbox"/>
Have the changes in carbon stock in living biomass of trees been estimated using one of the following methodologies?: • Method 1: Carbon gain-loss method • Method 2: stock change method	2,18	DR	See above / CAR 12	CAR 12	<input checked="" type="checkbox"/>
Has the corresponding formula been applied correctly, are used values in line with onsite conditions and are they clearly sustained / referenced? (formulae B.5 ff)	2, 18	DR	See above / CAR 12	CAR 12	<input checked="" type="checkbox"/>
Have $D_j$ , $BEF1,j$ , $BEF2,j$ , $CF_j$ and $R_j$ been defined according to methodology indications (hierarchical order of sources)?	2, 18, 27, 28	DR	See above / CAR 12	CAR 12	<input checked="" type="checkbox"/>
Have conservative values been used for all parameters? Is the conservativeness of any parameter used to estimate tree biomass substantiated in the PDD?	2, 18	DR	See above / CAR 12	CAR 12	<input checked="" type="checkbox"/>
C.8 Completion of the baseline study					
Have the date of completion and the name of the person (or entity) determining the baseline been specified?	2	DR	<b>Corrective Action Request No.13.</b> Date (DD/MM/YYYY) of completion of baseline study to be given in PDD / section C.8.	CAR 13	<input checked="" type="checkbox"/>

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<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?	2,18, 27, 28	DR, IV	After presentation of generic formula for calculation of exante actual net removals aggregated results of calculations are included to PDD.  <b><u>Corrective Action Request No.14.</u></b> Main calculation steps on ex-ante net removals shall be included to the PDD, in order to assure for transparency (not only in Taram). It shall be discussed and demonstrated in the PDD that the requirements of section II.7 of the methodology are complied with and key sources of applied values (i.e. RS, BEF, WD) should be given. (Consider to use the TARAM tool in its most current version)	<b>CAR 14</b>	<input checked="" type="checkbox"/>
<i>AR-AM0005, section II.1 (Project boundary)</i>					
Are all gases / emissions of other sources considered that are included to the boundary definition?	2,18	DR, IV	All relevant sources are considered to be included.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>AR-AM005, section II.7</i>					
<i>Ex ante actual net GHG removal by sinks</i>					
Has the formula for the ex-ante estimation of actual removals been correctly applied?	2,18	DR, IV	The main formula for the estimation on the actual removals included to PDD. Otherwise data / calculations are carried out based on the tool TARAM.  Document evidence on all key values (RS, BEF, WD, fertilizer use, transportation, etc) available.	<b>CAR 14</b>	<input checked="" type="checkbox"/>

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a) Changes in carbon stocks of living biomass of trees Is the calculation carried out according the gain and loss in the living biomass of trees method provided by the methodology? (formulae B.15-25 of methodology)	2,18	DR, IV	See above (potentially to be updated in line with improved baseline study)	CAR 14	<input checked="" type="checkbox"/>
b) Increase in emissions of greenhouse gases Is the calculation carried out considering the sources of emissions of greenhouse gases assumed in the methodology if the implementation of the A/R CDM results in such sources? (formula B.26)	2,18	DR, IV	See above. (potentially to be updated in line with improved baseline study)	CAR 14	<input checked="" type="checkbox"/>
Estimation of $E_{\text{FuelBurn}}$ (GHG emissions from burning of fossil fuels): Have the emissions from fuel burn been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values? (formula B.27)	2,18	DR, IV	The estimates on fuel consumption are sustained by average data from operation and included to TARAM.	CAR 14	<input checked="" type="checkbox"/>
Estimation of $E_{\text{BiomassLoss}}$ (GHG emissions from biomass loss due to the conversion of grasslands to forests): Have the grassland and other pre-existing vegetation been removed to afforest or reforest? If Yes, have emissions been estimated adequately and in line with the methodology requirements? (formula B.28)	2,18	DR, IV	See above	CAR 14	<input checked="" type="checkbox"/>
Estimation of $E_{\text{BiomassBurn}}$ (burning of pre-existing vegetation for site preparation or from forest fires) Have the emissions from biomass burning considered,	2,18	DR, IV	See above	CAR 14	<input checked="" type="checkbox"/>

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including not only CO <sub>2</sub> but also other greenhouse gases resulting from incomplete combustion of biomass in line with the methodology description?(formulae B.29-32)					
Estimation of (nitrous oxide emissions from nitrogen fertilization): Have the emissions from nitrogen fertilization been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values? (formulae B.33-35)	2,18	DR, IV	Utilization of fertilizer during first years was discussed during the onsite visit. The indications and calculations are traceable.	CAR 14	<input checked="" type="checkbox"/>
Have all relevant data been provided for ex-ante estimation? Has data provision been cross-checked with section II, item 11, table 2 of AR-AM0005 (p.37 - 47).	2,18	DR, IV	Data relevant for ex-ante estimates is provided.	CAR 14	<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? (formula B.36)	2, 18	DR	Emissions from transport are considered.	CR 2	<input checked="" type="checkbox"/>
AR-AM0005, section II.8					
a. Increase in emissions from fossil combustion Estimation of LK <sub>Vehicle</sub> - GHGs emissions caused by vehicle fossil fuel combustion due to transportation of seedling, labours, staff and harvest products to or from project sites; activities: Have the emissions from LK <sub>Vehicle</sub> been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values? (formulae B.37-38)	2, 18	DR	See above  The introduced categories of fuel use / leakage are considered realistic. Average capacity for calculations of wood transport is 44 m <sup>3</sup> per vehicle.  For fertilizer, personnel and wood transport average distances to the corresponding locations have been considered.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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b. Determination of activity displacement Estimation of $LK_{ActivityDisplacement}$ - Carbon stock decreases caused by displacement of pre-project grazing and fuelwood collection: Have the emissions from $LK_{ActivityDisplacement}$ been estimated adequately and in line with the methodology requirements? (formula B.39) Is sufficient evidence provided on input values? (Leakage from deforestation and land use change - formulae B.40-45; leakage from fuelwood collection – formulae B.46-49)	2	DR	See above <b><u>Clarification Request No 12</u></b> Clarify in the PDD the relevance of displaced fuelwood collection as potential source of leakage.	CR 2 CR 12	<input checked="" type="checkbox"/>
Monitoring Plan					
E.1 Monitoring of the project implementation					
Has the data to be collected for monitoring of the project boundary been listed adequately? (AR-AM0005, section III, 1.a)	2	DR	<b><u>Corrective Action Request No.15.</u></b> The monitoring of project implementation (boundary / establishment and management activities) shall be revised in order to assure full consistency with methodology requirements.	CAR 15	<input checked="" type="checkbox"/>
Has data to be collected for monitoring of forest establishment been listed adequately? (AR-AM0005, section III, 1.b)	2	DR	See above	CAR 15	<input checked="" type="checkbox"/>
Has data to be collected for monitoring of forest management been listed adequately?	2	DR	See above	CAR 15	<input checked="" type="checkbox"/>

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(AR-AM0005, section III, 1.c)					
Is the SOP for field data collection and QA/QC procedures as included in the methodology described or referenced to.			SOP for mensuration exist. QA/QC procedures are included to the document.	<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	DR	Typical forest mensuration practices are followed. The documentation and procedures (SOPs) elaborated in the context of the FSC certification reflect on corresponding mensuration practices.	CAR 15	<input checked="" type="checkbox"/>
E.2 Sampling design and stratification					
Have results of the application of the stratification procedure from the selected methodology been adequately described?	2	DR	<b><u>Corrective Action Request No.16.</u></b> In section E.2. / Sampling, consistency with the methodology section III.5 needs to be assured in the PDD documentation (see checklist below)	CAR 16	<input checked="" type="checkbox"/>
AR-AM005 Section III.2					
Is the project strata and their boundaries incorporated to monitoring schemes?	2,24	DR	Boundary monitoring currently not included.	CAR 16	<input checked="" type="checkbox"/>
Is the sampling framework, including sample size, plot size, plot shape, plot location, treatment of samples and management of sample plot data specified in the PDD as described in the methodology?	2,24	DR	Plots are rectangular. Size adapted, 60 planting spots are included. 540m3 in average Painted limits. 95 % level is assured A work instruction for inventory is available. Random approach in initial installation, then permanent Thus, no systematic approach is applied. The methodology indicates that a systematic approach	CR 13	<input checked="" type="checkbox"/>

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			<p>"should" be applied.</p> <p><b>Clarification Request No 13</b></p> <p>Clarify why the chosen approach of random definition of plot centres for sampling plots does not hamper the quality of the inventory results.</p>		
Is the sample size (systematic, permanent plots) calculated according to methodology requirements? Is random location foreseen? (formulae M.1-2)	2, 24	DR	See above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is the sample plot size defined according to methodology requirements?	2,24	DR	See above	CAR 16 CR13	<input checked="" type="checkbox"/>
<b>E.3 Monitoring of the baseline net removals</b>					
<p>Is monitoring of the baseline net removals required by the selected methodology? If yes,</p> <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	DR	Monitoring of baseline net removals is not required.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.4 Monitoring of the actual net removals</b>					
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-AM0005 section III.6)	2	DR	In regard to section E.4.1 consistency with parameters as indicated in methodology (table III.1 and III.2) is considered to exist.	CR 14	<input checked="" type="checkbox"/>

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			<b><u>Clarification Request No 14</u></b> For confidence level, accuracy, standard deviation (E.1.03-1.05) consider to indicate actual values in PDD. Consider also consistency with E.1.2.		
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? (AR-AM0005 section III.6)	2	DR	See above	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 29	DR	Forest monitoring procedures are defined in the context of regular forest management. In this context, procedures are well established and a forest inventory software is applied. Among others project specific allometric equations are generated based on this software.  <u>Observation</u> Monitoring procedures remain to be elaborated in line with the parameters to be monitored (stocks, emissions, leakage, etc). Same applies for procedures for emissions calculation (diesel, burning, fertilizer)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Are all GHG emissions increased by the project over time included to monitoring (fossil fuels, slash and burn, N <sub>2</sub> O)	2, 18	DR	As part of the TARAM calculations the significance of emissions was tested (significance was set to 0).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5 Leakage					
If monitoring of leakage is required by the selected methodology has this been stated and has the data and	2	DR	<b><u>Corrective Action Request No.17.</u></b> In regard to section E.5 / Leakage, consistency with	CAR 17	<input checked="" type="checkbox"/>

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information that will be collected to monitor leakage been adequately defined? (AR-AM0005 section III.8)			parameters as indicated in methodology (table III.3) remains to be assured. The table of parameters to be monitored shall be completed as required.		
Are the procedures for measurements for the monitoring of leakage clearly defined and do they follow typical forest mensuration practices?	2	DR	See above	CAR 17	<input checked="" type="checkbox"/>
Have procedures for the periodic review of the implementation of activities and measures to minimize leakage been adequately defined?	2	DR	Minimization of leakage is considered not to be necessary – as it is reduced to fuel consumption and several activities already carried out to reduce fuel use.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.6 QA/QC procedures undertaken for data monitored</b>					
Have QA/QC procedures been defined appropriately and are explanations of procedures (including their absence) reasonable?	2, 47	DR	All main items relevant for QC/QC included in E.6	<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, 25, 26	DR	<b>Clarification Request No 15</b> Further details on operating structure to be given in the PDD.	CR 15	<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	DR, IV	The persons / entities applying the Monitoring Plan are indicated in the PDD. It is indicated that contacts are included to the Annex. <b>Clarification Request No 16</b>	CR 16	<input checked="" type="checkbox"/>

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			Please indicate if the person/entity is also a project participant listed in Annex 1 of this document and clarify consistency of Worldbank and IBRD.		
Environmental Impacts of the Project					
F.1 Documentation of analysis of environmental impacts					
Has an analysis of the environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary been adequately documented?	2, 5,6, 7,8 10, 11, 12, 30, 31	DR, IV	<p>The process of Environmental Impact Assessment and its results are described in the PDD.</p> <p>The corresponding EIA studies were reviewed and valid operating licences are available. The latter shall be monitored over time (CAR 3).</p> <p>The forest management plan as well as the relevant documents from the FSC certification process (especially recertification process) include a description of environmental conditions and foreseen monitoring. It is underlined that FSC requires among others that 20% reserve area is set aside (outside CDM boundary). The FSC certification reports discuss in further detail the environmental and social impacts.</p> <p><b><u>Corrective Action Request No.18.</u></b> As per CDM guidance, the analysis to be presented in section F should include a documentation of environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary and where applicable, information on, inter alia, hydrology, soils, risk of fires, pests and diseases. Thus, include</p>	CAR 3 CAR 18	<input checked="" type="checkbox"/>

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			(beyond description of EIA process), the main aspects actually analyzed in EIA to PDD. Discuss furthermore potential negative impacts (in F.2), among others hydrology impacts and soil impoverishment.		
Does the analysis include (where applicable) adequate information on hydrology and soils, and risk of fires, pests and diseases?	2, 5,6, 7,8 10, 11,12	DR, IV	See above  In the local interviews, Plantar staff underlined that main risks are considered to be cutter ants and the occurrence of fires. The risk of fire is being responded by the installation of a fire management plan, corresponding training of personnel, and the installation of fire fighting brigades.  While recognizing that residual risks remain, it is considered that the fire risk may be neglected for the estimation of expected emission reductions.	<b>CAR 18</b>	<input checked="" type="checkbox"/>
<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, 5,6, 7,8 10, 11	DR, IV	See F.1  EIA information was reviewed. Negative impacts to be described in PDD.	<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, 5,6, 7,8 10, 11,	DR, IV	Environmental programmes carried out by the project are described in the PDD / section F.3. The project participant has completed a list of main parameters and monitoring activities based on the EIA. Annex 4 / Monitoring Plan includes further details of the	<b>CR 17</b>	<input checked="" type="checkbox"/>

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	30, 31		foreseen environmental monitoring in Table 6.1 (Environmental Monitoring).  <b><u>Clarification Request No 17</u></b> The activities / parameters actually to be monitored over time in the field of environmental impacts shall be further clarified and clearly indicated in the PDD. Include more specific indications the parameter to be monitored, on source of data and frequency.		
Socio-economic Impacts of the Project					
G.1 Documentation of analysis of socio-economic impacts					
Has an analysis of the socio-economic impacts including impacts outside the project boundary been adequately documented?	2, 5,6, 7,8 10, 11	DR, IV	The section of the PDD describes the additional activities of the project in field of socioeconomic development. Annex 6 provides further background information on the different activities and measures carried out, such as contributions to employment, campaigns and measures related to improved health as well as other activities related to capacity building. It is considered that Plantar has developed substantial initiatives to underline positive socio-economic impacts.  <b><u>Corrective Action Request No.19.</u></b> In line with the Request in the field of environmental impacts, it is considered necessary that main socio-economic impacts outside the boundary are documented in the PDD (beyond reference to EIA). The analysis shall include (where applicable) information on local	<b>CAR 19</b>	<input checked="" type="checkbox"/>

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			communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuelwood and other forest products.		
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, 5,6, 7,8 10, 11	DR, IV	See above	CAR 19	<input checked="" type="checkbox"/>
<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, 5,6, 7,8 10, 11	DR, IV	See above	CAR 19	<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, 5,6, 7,8 10, 11	DR, IV	<p>See above</p> <p>A summary of the social programs carried out by the project and its intention is briefly described in the PDD.</p> <p>The project participant has developed a list of main parameters and monitoring activities based on the EIA.</p> <p>The activities / parameters to be monitored over time in the field of socioeconomic impacts are described in further details in Table 6.2: Social Monitoring of Annex 4 / monitoring Plan.</p>	CAR 19	<input checked="" type="checkbox"/>

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Stakeholder Comments					
H.1 Description of how stakeholder comments have been invited and compiled					
Has a description of how stakeholder comments have been invited and compiled been provided and has it been undertaken in an open and transparent manner that facilitates comments being received and has the project been described in a manner that allows local stakeholders to understand the project?	2, 32, 33	DR, IV	The stakeholder process carried out is considered to comply with the relevant CDM guidance. A list of identified and invited stakeholders is included to the PDD. These were contacted in writing with a questionnaire (standard letter for commenting), complying with national requirements on the stakeholder process. Response letters were reviewed, among others from FBOS and CODEMA.  Information on the project is among others available on the Plantar Website.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.2 Comments received					
Have stakeholders who made comments been identified and has a summary of the comments been provided?	2	DR, IV	The comments received are summarized in the PDD. Positive comments were received, underlining the importance of plantation forests being available to source more sustainably produced wood while creating employment, as well as comments raising concerns on environmental impacts. The latter were discussed among others in the context of the FSC certification process.	<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	2,	DR, IV	It is indicated that comments were responded via different means (i.e. webpage, FSC certification)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Ref. = Reference as included to Information Reference List; MoV = Means of verification (Document Review / DR; Interview / IV)

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## Validation Protocol

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
provided?			The audit team considers that the comments have contributed to further intensification of environmental and social monitoring of the project.		
Annexes					
Annex 1 Contact information on project participants					
Is contact information on participants of the project complete?	2,	DR, IV	Contact information is given and included to the PDD. The information is considered 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, 8	DR, IV	No public funding from Annex 1 is involved.	CR 3	<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, 14	DR, IV	In the initial PDD one single stratum is assumed for the baseline study results: grasslands with 2300 t d.m / ha  <b><u>Corrective Action Request No.20.</u></b> In regard to the baseline study, evidence on results of actual field data remains to be included to the PDD and submitted. The baseline estimates shall reflect on the different baseline strata (i.e as introduced in eligibility study) and overall consistency with stratification is to be assured.	CAR 20	<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	2	DR, IV	A Monitoring Plan is attached as Annex 4. Partially information is repeated from main PDD. Additional information ins included particularly in regard to	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Ref. = Reference as included to Information Reference List; MoV = Means of verification (Document Review / DR; Interview / IV)

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CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concl	Final Concl
the CDM?			environmental and social monitoring.		

## Responses to CAR and CR (Table 2)

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<b><u>Corrective Action Request No.1.</u></b> In regard to Maps in Figure 1 and 2, assure that all maps carry an indication of scale, coordinates (i.e. Long / Lat) and the Datum used.	A.4.2.	<u>Project participant 9 Aug 2008:</u> Maps in Figure 1 and Figure 2 were merged to one single figure (Figure 2). They were revised accordingly and placed in section A.4.2 of the PDD. <u>Audit team 15 Sep 2008:</u> The overview maps were updated accordingly and included to the PDD.	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.2.</u></b> Separate maps for MG 03 and 04 shall be included to the PDD as these compound areas also contain several discrete sites (in small distance to each other). Assure for labeling of each discrete site in these maps. (to be put here or in Annex). Indicate total area per unit MG 03 and MG 04.	A.4.2.	<u>Project participant 9 Aug 2008:</u> MG03 and MG04 maps were designed and were specifically included in an Annex 5 providing further detail about the project boundary. The total area per unit (MG03 and MG04) was included in a footnote in this section. <u>Audit team 15 Sep 2008:</u> Each discrete site as part of MG03 and MG 04 remain to be labelled as requested on the map (consider to assure consistency in labelling between discrete sites and compartment labelling for internal management). Note that the digital boundary file as provided is scheduled to be forwarded to UNFCCC. <u>Project participant 29 Sep 2008:</u> The revised maps with the detailed project boundary and specific identification of each stand are provided in Annex 5. <u>Audit team 15 Sep 2008:</u> The adaptations have been carried out accordingly in Annex 5.	<input checked="" type="checkbox"/>
<b><u>Corrective Action Request No.3.</u></b> A valid Operating Licence (according to EIA) shall be incorporated to the Monitoring Plan. (compare section F).	A.5.2.	<u>Project participant 9 Aug 2008:</u> Since section A.5.2 regards to the presence of endangered species, the monitoring of the operating licenses was included in section F3, section E.1.1 and Annex 4.	<input checked="" type="checkbox"/>

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		<u>Audit team 15 Sep 2008:</u> Section Monitoring of Operating Licence was included to Monitoring Plan.	
<b><u>Corrective Action Request No.4.</u></b> Include a description of the planting process and its impact on soils, as well as an indication / summary on forest management activities over time and harvesting methods (i.e confirm that there is no pre-harvest thinning).	A.5.4.	<u>Project participant 9 Aug 2008:</u> The descriptions of the planting process and impact on soils as well as the harvesting methods have been included to the PDD as requested. All specific SOP's are available. <u>Audit team 15 Sep 2008:</u> Summary on processes are included to the PDD.	☑
<b><u>Corrective Action Request No.5.</u></b> Clear reference (in PDD) to the latest versions of the eligibility procedure (EB 35, Annex 18) shall be taken.	A.7.	<u>Project participant 9. Aug 2008:</u> Reference to EB 35, Annex 18 – “Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM Project Activities” (version 1) was inserted in the text of the PDD (Please see highlighted text in section A.7). <u>Audit team 15 Sep 2008:</u> The reference to the procedure was included (Request posed before recent changes in Guidelines).	☑
<b><u>Corrective Action Request No.6.</u></b> Main work steps of the eligibility assessment should be included to the PDD. Include information on satellite images used (type, additional to year) and their resolution, the differentiated classes and how these classes assure to exclude vegetation that meets the national forest definition (consistency between vegetation described by classes and forest definition), and the overall classification process. Elaborate on potential changes in classes	A.7.	<u>Project participant 9 Aug 2008:</u> The main steps of the eligibility assessment report were included in the section A.7 of the PDD, as well as information on the satellite images used and different vegetation classes within the project boundaries. The land eligibility assessment was executed following the procedures of the EB 35, Annex 18, which states that the project participant shall demonstrate that there was no forest on the project activity's land in two specific years: 2000 (project starting year) and 1989. Data from the land eligibility assessment report demonstrates that the pasture areas were significantly more degraded in 2000. In addition, the report concludes that	☑

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between 1989 and 2000.		the project area fulfils the EB 35 Annex 18 criteria falling under the category of reforestation, since local vegetation cover was below forest thresholds <sup>1</sup> .  <u>Audit team 15 Sep 2008:</u>  As the project started in 2000 the role of remote sensing is of special relevance. Based on the evidence and process description the audit team concludes that eligibility requirements are complied with.	
<b><u>Corrective Action Request No.7.</u></b> The front page of the PDD contains the indications that there is an Annex 5 and 6. Please include corresponding Annex, or erase.	C.1.	<u>Project participant 9 Aug 2008:</u>  The corresponding Annexes have been revised and as requested.  <u>Audit team 15 Sep 2008:</u>  The layout has been adapted correspondingly.	☑
<b><u>Corrective Action Request No.8.</u></b> The baseline reforestation rate shall be specifically assessed for the region. <i>In line with the methodology, project participants must provide an estimate of the average regional (and project entity-specific) annual rates of A/R activities in the absence of the proposed A/R CDM project activity, so that it is considered within the listing of plausible land-use alternatives in Step 5 / baseline definition, If there is a reforestation rate in the region, these shall be considered.</i>	C.2.	<u>Project participant 9. Aug 2008:</u>  As explained in Sections C.5.1. in the PDD, the areas in the proposed project A/R activity were specifically purchased for the project and were not subject to any A/R activities. Thus an historical A/R rate is not applicable to this specific project activity.  Also, if the baseline for the land-use is assessed for the region, one comes to the conclusion that eventual A/R activities conducted in the surroundings of the project do not reflect either sectoral conditions or land-use trends, in line with the methodology. They are part of a very minor and dedicated offer of A/R activities for iron, which results in a large deficit of A/R activities for the iron industry in Brazil, as widely documented in Section C.5.1.  Since this specific methodology is designed for A/R activities for industrial/commercial uses, land-use trends must reflect sectoral conditions (see methodology quotation below). One can not assume that	☑

<sup>1</sup> As defined by Resolution no 2, of 10 August 2005, by the Interministerial Commission on Global Climate Change.

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		<p>in the absence of the project activity, the eligible lands purchased by the project entity would be converted from pastureland to A/R activities for iron manufacturing, even at small rates. Two main arguments are advanced: (i) the baseline in terms of the industrial use associated with the methodology is the use of coal coke. Thus it is not consistent to assume that the land-use baseline reflect any A/R rate. Rather the baseline land-use is the prevailing land-use in the region (pastureland) and (ii) even if the regional A/R rate is considered (below 2% as per the most comprehensive study - IEF, UFLA, 2006 – the national rate is even lower), this would still not be a likely land-use baseline scenario. Since there is no availability of plantations in the market, it can not be assumed that one would purchase new portions of land (pastureland) to reforest only a minor part of it for the industrial use at stake, i.e. iron making. This is applicable both to the baseline (absence of the project) and to the project.</p> <p>The following quotations illustrate the consistency of the rationale presented above with the methodology:</p> <p><i>"If regional data is not available or <b>not reflecting sectoral conditions</b>, average annual rate of pre-project A/R undertaken at the national level should be selected and adequate evidence be provided to justify this choice ... "</i></p> <p><i>"The analysis shall focus on the <b>rate of A/R activities that is likely to occur in the absence of the A/R CDM project activity</b>; the determination of such an average annual A/R rate must be established by means of verifiable data and <b>supported by the reasons for the trends in the land uses</b>"</i></p> <p>In conclusion, although there are small rates of A/R in the immediate surroundings of the project area, such A/R activities are not consistent with the land-uses that reflect the sectoral conditions (land-use associated with the iron industry baseline). In fact, the trends in land uses that reflect</p>	

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		<p>sectoral conditions do not result in an applicable A/R rate for the baseline for the eligible areas within this project activity. (Coal coke baseline → no A/R activities for iron making → baseline land-use = prevailing land use in the region (which, in this case, is not consistent with the adoption of a small A/R rate). The revised text is highlighted in the second bullet point of section C.2.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The discussion line provided as response does not include indications on ex-ante a) regional and b) project entity specific reforestation rates as requested. Thus, corresponding quantifications and evidence remains to be provided. Attention is drawn to the compliance of Step 4 of section II.4 (baseline definition), also for then considering policy and sector specific aspects in the baseline reforestation rates.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>In line with the above mentioned discussion and with the methodology provisions, the pre-project A/R rate previously mentioned (ex ante = past) of the project entity is not applicable as a baseline A/R rate, because (i) there was no A/R activity in the project areas between 1989 and 2000, as confirmed by the satellite imagery – see section C.4 of the PDD and (ii) these areas were specifically purchased for the project - see evidence provided, e.g. ERPA with the World Bank etc. - and would not have been reforested in the baseline, as per the most likely land-use in the absence of the project – see analysis on Steps 4, 5, 6 of section C.5.1. Also, the past sectoral A/R rate (8.2% as in Figure 27 Section C.5.1) and updated regional A/R rate (below 2.0%) are not applicable as baseline A/R rates, since such a past land-use does not reflect the land-use trends that are consistent with the sectoral conditions, for the reasons discussed above and presented in the PDD. However, in order to increase the conservativeness of the estimation of net anthropogenic GHG emission removals, the amount equivalent to the past A/R rate for the sector will be</p>	

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		<p>discounted in the calculation of net anthropogenic GHG emission removals (see Sections A.9 and D.1)."</p> <p><u>Audit team 9 Oct 2008:</u></p> <p>The audit team concluded that a) project specific AR rates are not applicable as the planting activities of the entity within its property did not occur on AR-CDM eligible land (but mostly of land with exhausted plantations). Corresponding evidence was provided as part of an EIA (for these sites) which mention the presence of prior reforestation and satellite imagery. Furthermore, all eligible lands of the entity are part of the CDM project activity.</p> <p>In regard to the regional reforestation rates it was noted that a discounting was applied.</p> <p>The data provided as reforestation rates actually describes not the rate of reforestation but the current presence of reforestation (2 % of the State area is covered with plantations. These can provide in average a demand of 8,2 % of the wood in this particular sector).</p> <p>The current areas discounted of 137 ha annual equals 1,17% of the project area. Thus, this is the de facto assumed pre project AR rate at the regional level as described per Section II.4, step 4 of the methodology.</p> <p>Actual AR rates on the regional level are lower than this (note also Figure 22 /27 in PDD and that the total of these plantation currently sum up to 2% of all lands).</p> <p>In light of the latter, the approach is considered conservative and is accepted.</p>	
<p><b><u>Corrective Action Request No.9.</u></b></p> <p>Compliance with the aspect of steady state to be clarified and corresponding explanations to be included to the PDD. The evidence utilized to demonstrate compliance shall be indicated and</p>	C.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The third bullet point of section C.2 was revised. Evidence and explanations were provided in order to clarify the conservative approach adopted within the project, i.e.: the most plausible baseline scenario was identified as grasslands in steady state and at its peak carbon stocks.</p>	<input checked="" type="checkbox"/>



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made available.		<p>Graphs showing changes in vegetation cover within the project boundary in years 1989 and 2000 were included in the PDD.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>(Note that C.2 relates to the item in the Checklist / Protocol where this issue was first raised - not necessarily to the PDD section where changes are to be carried out). The evidence provided and especially the non-appearance of any forestry or bushland class in the multitemporal satellite image analysis is considered sufficient evidence that these areas would not have developed solely back to forest in reasonable time ranges.</p>	
<p><b><u>Corrective Action Request No.10.</u></b></p> <p>(applicable to entire stratification process) Compliance with requirements of individual stratification steps shall be documented in the PDD (in further detail), allowing to assess compliance with methodology requirements. Section C.4 of checklist enumerate the details, which are expected to be covered in the PDD. The actual information / maps shall be included to the PDD (rather than indication "will be made available to DOE").</p>	C.4.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Detailed information on the stratification steps was included in the PDD as per methodology's requirements. Georeferenced maps with <i>ex ante</i> stratification including sub-strata were attached to the document.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The adapted documentation on the stratification process is considered detailed and in line with the step wise approach of the methodology.</p>	☑
<p><b><u>Corrective Action Request No.11.</u></b></p> <p>Adapt Figure 6 and clarify the covered years (currently years not readable in graphic). If a drop in plantation cover in documented (only) until 1998 for Minas Gerais, please further elaborate on development of plantation areas in posterior times (p. 27 i.e. indicates a rise since 2001 for Brazil)</p>	C.5.1.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The Figure 6 has been properly adapted and the numbers are now readable. This figure is now numbered as Figure 22 in the final PDD.</p> <p>According to this figure, there is a clear drop on the Forest plantation stock in the early 90's contradicting a rise trend since 1967, starting year of the federally subsidized reforestation program under law 5106 in September, 1966. With the end of the fiscal incentives, the area of plantations declined from 6.5 million hectares in 1992 to 4.8 million in 1998, although the charcoal consumption remained at rates similar to pre</p>	☑

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		<p>1989 values. This situation caused a drop in the forest plantation stock in Minas Gerais.</p> <p>Data presented in Figure 24 confirms this scenario at the national level with a major gap between supply and demand. Even though the absolute amount of plantations has increased since 2001, the consumption of reducing agents has increased significantly more, resulting in an increase of the <i>ex post</i> plantation deficit (see highlighted text on the step 3 of Section C.5.1 of the PDD).</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The layout of the chart has been adapted. Indications on increased plantations areas and increased demand for reducing agents have been noted. Further background information on the supply for the iron production sector is provided.</p>	
<p><b><u>Corrective Action Request No.12.</u></b></p> <p>Compliance with the requirements of section II.5 (Estimation of baseline net GHG removals by sinks) of the methodology shall be discussed in detail (including presence of individual trees). Consistency with (an improved) baseline study is to be assured.</p>	C.7.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The section C.7 was revised. Section II.5 of the approved methodology was strictly applied and the details about the formulae applications were provided.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Adaptations in PDD carried out. To be closed jointly with conclusions on CAR 8 above. In line with CAR 8 adaptations may be necessary.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>See response to CAR 8</p>	☑
<p><b><u>Corrective Action Request No.13.</u></b></p> <p>Date (DD/MM/YYYY) of completion of baseline study to be given in PDD / section C.8.</p>	C.8.	<p><u>Project participant 9. Aug 2008:</u></p> <p>The exact date of the completion of the baseline study was indicated and highlighted in the final text of the PDD.</p> <p><u>Audit team 15 Sep 2008:</u></p>	☑

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		The corresponding changes have been made in the PDD.	
<p><b><u>Corrective Action Request No.14.</u></b> Main calculation steps on <i>ex ante</i> net removals shall be included to the PDD, in order to assure for transparency (not only in Taram). It shall be discussed and demonstrated in the PDD that the requirements of section II.7 of the methodology are complied with and key sources of applied values (i.e. RS, BEF, WD) should be given. (Consider to use the TARAM tool in its most current version)</p>	D.1.	<p><u>Project participant 9. Aug 2008:</u> The main calculation steps on the <i>ex ante</i> net removals were included to the PDD, assuring transparency. The key sources of applied values, including IPCC defaults, were provided as requested. The most updated version 1.3 of the TARAM tool was not considered due to some incompatibilities such as the assumption that the roots are extracted from the soil during harvesting. Thus, the TARAM tool version 1.2.Plantar remains the most appropriate for this project activity.</p> <p><u>Audit team 15 Sep 2008:</u> Calculations steps have been included as well as main results. For key values/parameters used and incorporated to TARAM, it remains to be documented in the PDD that adequate sources and conservative choices for CF, RS, BEF and WD as well as applied equations / yield tables have been applied. (consider compliance with hirachical order when chosing data; simple refernce to TARAM is not sufficient)</p> <p><u>Project participant 29 Sep 2008:</u> In order to assure conservativeness and compliance with hierarchical order when choosing data, the following paragraph was inserted in the PDD and the sources of the items were described. “The Wood Density value applied was based in the weighted average of the clone densities which were planted in the areas of the project and it</p>	<p>☑</p>

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		<p>was defined by the Research Department of the project entity. The Biomass Expansion Factor and the Root-to-Shoot ratio used were based in a <i>Magister Scientiae</i> research<sup>2</sup>. The field data was collected in the neighboring municipality of Três Marias, with similar edapho-climatic conditions to the project area. The number of trees per hectare is the same used by the project, which is 1 111 trees/ha. There were not found neither local nor regional data for the Carbon Fraction variable which could support the characteristics of the clones planted in the project area, thus the IPCC default value was considered".</p> <p><u>Audit team 3 Oct 2008:</u></p> <p>The applied defaults are considered applicable to the project context. Further review for expost calculations occurs through monitoring of these parameters.</p>	
<p><b><u>Corrective Action Request No.15.</u></b></p> <p>The monitoring of project implementation (boundary / establishment and management activities) shall be revised in order to assure full consistency with methodology requirements.</p>	E.1.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The revised text of section E.1 was highlighted in the PDD and followed strictly the approved methodology. Detailed information was provided about monitoring of project boundary, forest establishment and forest management activities.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The included monitoring activities are generally described in line with the methodology requirements.</p> <p>Note that the guidelines require the clear definition of monitoring parameters and the completion of the corresponding tables</p>	<input checked="" type="checkbox"/>

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<sup>2</sup> LADEIRA, 1999

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		<table><tr><th>ID number<sup>5</sup></th><th>Data variable</th><th>Data unit</th><th>Measured (m), calculated (c) estimated (e) or default (d)<sup>6</sup></th><th>Recording frequency</th><th>Number of data points / Other measure of number of collected data</th><th>Comment</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> <p>(Boundary: It is underlined that values of Figure 42 of PDD are for ex-ante estimates and as they will be monitored they may change over time; same applies for Figure 43 – this is for ex-ante estimate only.)</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>The table has been adapted accordingly. Detailed information was provided about monitoring of project boundary, forest establishment and forest management activities.</p>	ID number <sup>5</sup>	Data variable	Data unit	Measured (m), calculated (c) estimated (e) or default (d) <sup>6</sup>	Recording frequency	Number of data points / Other measure of number of collected data	Comment																						
ID number <sup>5</sup>	Data variable	Data unit	Measured (m), calculated (c) estimated (e) or default (d) <sup>6</sup>	Recording frequency	Number of data points / Other measure of number of collected data	Comment																									
<p><b><u>Corrective Action Request No.16.</u></b></p> <p>In section E.2. / Sampling, consistency with the methodology section III.5 needs to be assured in the PDD documentation (see checklist below)</p>	E.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The forest stock established within the project boundary is very homogeneous, once it is based on clones implemented in similar soil, climate, landscape and forestry management conditions. Thus, they have the same growth patterns and similar morphology. These features allow for the adoption of a system of random definition of plot centers for sampling plots, as it has a low variability in the Forest stocks for the characteristics of interest.</p> <p>The number of permanent sample plots in each substrata is calculated based on an average maximum error of around 10%, and on 95% confidence levels. The size of the sample by substrata is based on the following equation.</p>	<input checked="" type="checkbox"/>																												

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		$n = \frac{t^2 \cdot (CV\%)^2}{E^2\% + \frac{t^2 \cdot (CV\%)^2}{N}}$ <p>Where: n = Sample intensity (sample size) t = t value for the confidence level of 95% CV% = Coefficient of Variation of the characteristics of interest. E = maximum acceptable error level for the forestry inventory (<math>\pm 10\%</math> average) N = total number of suitable sample units (plots) in the population. The permanent sample plots are rectangular and composed by 60 planting spots. Their area is of 540 m<sup>2</sup> on average. The neighboring trees are painted and the center is geo-referred with a GPS tool. The adopted stewardship system is the same for the remaining stand and the plot monitoring interval (measurement) occurs every 5 years for each project substrata.</p> <p>The strata, substrata and stand limits shall be constantly monitored. In case of changes, the limits should be marked again with a GPS tool and corrected at the GIS database and inventory system.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The methodology indicates a systematic location with random start for the sampling plots. The process of plot location (fixed over time with GPS center points) as well as all measurement processes are documented internally. The chosen approach of random choice is considered to be in line with standard inventory operating procedure. The approach is accepted.</p> <p>Compliance with uncertainty requirements of compiled monitoring data will</p>	

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		need to be reviewed at verification.	
<b><u>Corrective Action Request No.17.</u></b> In regard to section E.5 / Leakage, consistency with parameters as indicated in methodology (table III.3) remains to be assured. The table of parameters to be monitored shall be completed as required.	E.5.	<u>Project participant 9 Aug 2008:</u> Parameters not monitored were also included in table III.3 of the methodology in the Section E.5.1 of the PDD (see highlighted section). The text in section E.5 was revised and further clarification regarding monitoring of leakage was provided. <u>Audit team 15 Sep 2008:</u> All relevant items were included, including non-applicable parameters. The approach is considered consistent. <u>Project participant 29 Sep 2008:</u> As explained in CR2 and based on the grazing intensity calculation results, no overgrazing happened due to the displacement of grazing activities. Non-applicable parameters were removed from table on section E.5.1 of the PDD. <u>Audit team 1 Oct 2008:</u> Closed in line with responses provided CR 2 (pre-project grazing).	☑
<b><u>Corrective Action Request No.18.</u></b> As per CDM guidance, the analysis to be presented in section F should include a documentation of environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary and where applicable, information on, inter alia, hydrology, soils, risk of fires, pests and diseases.	F.1.	<u>Project participant 9 Aug 2008:</u> All positive and negative environmental impacts identified in the EIA study were included in section F.1 of the PDD. In section F.2, the most significant negative impacts were described and supported by public literature. Measures for the mitigation of the significant negative impacts were included in section F.3, as well as monitoring parameters. <u>Audit team 15 Sep 2008:</u>	☑

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Thus, include (beyond description of EIA process), the main aspects actually analyzed in EIA to PDD. Discuss furthermore potential negative impacts (in F.2), among others hydrology impacts and soil impoverishment.		The corresponding adaptations have been carried out. F.1 now includes a description of impacts and F.2 includes among others the monitoring of an available operating licence – which is only renewed if environmental legislation is complied with.	
<b><u>Corrective Action Request No.19.</u></b> In line with the Request in the field of environmental impacts, it is considered necessary that main socioeconomic impacts outside the boundary are documented in the PDD (beyond reference to EIA). The analysis shall 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.	G.1.	<u>Project participant 9 Aug 2008:</u> The main socio economic and environmental impacts have been documented in the PDD, based on the EIA and on the FSC (Forest Stewardship Council) certification. Please see Section G. <u>Audit team 15 Sep 2008:</u> The impacts have been described in G.1. G.2 and G.3 have been completed accordingly.	☑
<b><u>Corrective Action Request No.20.</u></b> In regard to the baseline study, evidence on results of actual field data remains to be included to the PDD and submitted. The baseline estimates shall reflect on the different baseline strata (i.e as introduced in eligibility study) and overall consistency with stratification is to be assured.	Annex 3	<u>Project participant 9 Aug 2008:</u> Annex 3 was revised and the changes in the text were highlighted in yellow. Further clarification on the adoption of a conservative approach by the project proponent was presented, in addition to detailed information (maps, tables and graphs) about land use and vegetation pre-existent conditions. <u>Audit team 15 Sep 2008:</u> Baseline stock data: Document that the IPCC default is conservative and that no better data is available (Hirachichal choice as forseen by methodology) to describe the specific baseline stocks in the project area. If available, use local / regional sources. Assure that baseline stocks are discounted once at project start / planting year in the calculations.	☑



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		<p><u>Project participant 29 Sep 2008:</u></p> <p>As discussed with the auditing team, the table with baseline stock data was removed and Annex 3 was revised accordingly.</p> <p><u>Audit team 1 Oct 2008:</u></p> <p>The audit team accepts the literature baseline estimates as included to the PDD in light of the fact that at the starting date the baseline methodology requirements were not defined yet and that the eligibility study as provided by clients indicates applicability of these defaults.</p>	
<p><b><u>Clarification Request No. 1.</u></b></p> <p>Clarify consistency between sum of area included to Operating Licenses and Project area.</p>	A.5.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The area planted by the project entity was less than the area licensed for such activity. The sum of the project entity's licensed areas for silviculture activities amounts to 11,937.14 hectares. The project's total area for this project activity is 11,711.37 hectares, please refer to footnotes 8 and 9 of Section A.4.2 of the PDD to see details about the total area per forestry services unit.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The clarification is sufficient. Operating Licence applies to project area.</p>	☑
<p><b><u>Clarification Request No. 2.</u></b></p> <p>Although the tool "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity" / EB 36 is not mandatory to the chosen methodology it is considered to reflect current good practice in Leakage assessment. The participant shall discuss and clarify activity displacement of grazing in light of the step wise evaluation approach included to the tool, while considering corresponding assumptions and definitions.</p>	A.5.6.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Section A.5.6 was revised accordingly and the main changes in the text were highlighted in yellow. New evidence based on a new survey with previous land owners has been included indicating that: (i) activity displacement was not attributable to the project and (ii) even if it were, evidence indicates no net emissions associated to activity displacement, as per the methodology provisions and the tool for "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity (EB39 Annex 12)".</p> <p>Thus, it has been confirmed that the leakage prevention activities</p>	☑

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		<p>previously conducted by the project entity and verified by the PCF's monitoring team and also SGS have succeeded. As requested the project proponent adopted a stepwise approach on the assessment of leakage activities with the support of EB 39, Annex 12, version 02 of A/R Tool of "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity". Additional details on the leakage <i>ex ante</i> calculations, monitoring procedures and parameters monitored are provided in section D.2 and in section E.5/E.5.1 of the PDD.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Please provide evidence on land owner questionnaire on animals and sustain further that 4000 displaced animals do not cause overgrazing (considering available land for displacement and animal load on these areas). Av. Stock of 1,02 heads in Minas Gerais was noted.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>As explained in the PDD, it is important to clarify that according to the land owner structured questionnaires, the eventually displaced animals would be 3630 not 4000. The following assessment and calculations have been performed to demonstrate that no overgrazing has taken place.</p> <p>The total results of the structured questionnaires show that the occurrence of displacement of animals would have only taken place in the case of three previous land-owners (Suz Participações Ltda., Edisa Empreendimentos Dias Santos Ltda and Geraldo Paulo Laborão). Basic information gathered with each of them is provided below:</p> <p>1) Previous owner: Suz Participações Ltda. Total area: 7,754.87 Total of head animals: 8,000 Displaced animals (40%): 3,200 Original land area occupied by the displaced animals (7, 754. 87</p>	

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		<p>X 40%): 3,101.95</p> <p>2) Previous owner: Edisa Empreendimentos Dias Santos Ltda. Total area: 703.45 Total of head animals: 500 Displaced animals (70%): 350 Original land area occupied by the displaced animals (703.45 X 70%): 492.42</p> <p>3) Previous owner: Geraldo Paulo Laborão Total area: 67.76 Total of head animals: 80 Displaced animals (100%): 80 Original land area occupied by the displaced animals: 67.76</p> <p>Summary of grazing intensity calculations before and after the project activity implementation:</p> <ul style="list-style-type: none"> <li>- Number of head animals in the area where the cattle were displaced to: 4,000;</li> <li>- Total number of head animals displaced (3,200 + 350 + 80): 3,630;</li> <li>- Specific original land area occupied by the displaced animals (Sum of 3,101.95 + 492.42 + 67.76): 3, 662.13;</li> <li>- Total area where the animals were displaced to: 8, 564;</li> <li>- Grazing intensity after displacement (4,000 + 3,630)/8,564): 0.89;</li> <li>- Grazing intensity before displacement (3,630/3,662.13): 0.99.</li> </ul> <p>Therefore, based on the grazing intensity calculation results no overgrazing happened due to the displacement of grazing activities.</p> <p><u>Audit team 1 Oct 2008:</u></p> <p>The questionnaires have been reviewed and are considered credible. The audit team follows the argumentation line presented. Displacement of grazing is therefore not further considered in calculations. Compare summary of findings in Validation Report.</p>	

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		Impressions during the onsite visit have been that general grazing intensities are low in the area.	
<b><u>Clarification Request No. 3.</u></b> Confirmation from the Netherlands that no ODA is involved shall be submitted.	A.10.	Confirmation will be provided. <u>Project participant 29 Sep 2008:</u> ODA letter first submitted by email on September 11 <sup>th</sup> , 2008.	☑
<b><u>Clarification Request No. 4.</u></b> Underline with further evidence and elaborate in the PDD, how the specific starting date was defined (Start of plantings?).	B.1.	<u>Project participant 9 Aug 2008:</u> Further clarifications were provided in section B.1 of the PDD (see highlighted text), indicating that the starting date of the project is the exact date on which the planting activities started in the field, in accordance with the forest inventory system. The planting dates are registered as per QA/QC system of the project proponent. <u>Audit team 15 Sep 2008:</u> The inventory system was reviewed onsite. Provide evidence of starting date, i.e. summary sheet or inventory data generated by software. <u>Project participant 29 Sep 2008:</u> As it was demonstrated during the audit visit, planting and forestry management activities are monitored and controlled by specialized staff, based on a forestry inventory system (SPP Eucalyptus software). Two excel files were provided to the auditing team, which include the planting details (including planting dates) of the Forestry Units MG03 and MG04 throughout the year 2000 (January 1 <sup>st</sup> 2000 to 31 <sup>st</sup> December 2000). These files are automatically generated by the SPP Eucalyptus software. A .bmp file was also provided to demonstrate the virtual environment where the files are generated ("Listagem de Talhão por Período" meaning <i>List of forestry stands per period</i> ). The data on the excel files show that no planting activity was undertaken in the MG04 Unit in 2000 and that in MG03 302.54 hectares were planted in the same period of time. The first planting activity was undertaken in	☑

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		stand 6 (Number 6 of the Column “Talhão”) and the starting date of the project is 10/11/2000 (meaning November 10 <sup>th</sup> , 2000 – first project plantations). Thus, the project activity’s starting date stated in the PDD is corroborated by these evidences (November 10 <sup>th</sup> , 2000).  <u>Audit team 1 Oct 2008:</u>  The choice of starting date has been fully sustained.	
<b><u>Clarification Request No. 5.</u></b> Please clarify if the tool for the test of significance of emissions will be considered and too which extend this leads to the non-consideration of emissions.	C.1.	<u>Project participant 9 Aug 2008:</u>  Adopting a conservative approach, the tool for testing significance of GHG emissions in A/R CDM project activities will not be used in this project. All project and leakage emissions will be discounted even if they do not reach the significance thresholds indicated in the tool for the test of significance of emissions.  <u>Audit team 15 Sep 2008:</u>  Initial PDD was adapted accordingly.	<input checked="" type="checkbox"/>
<b><u>Clarification Request No. 6.</u></b> It shall be elaborated in the PDD and clarified, how the baseline reforestation rate of Plantar / the participant (compare Figure 10 / table; including plantings on non eligible areas) has developed over time after the claimed project start. This is to be put in the context of the Request on the regional reforestation rate.	C.2.	<u>Project participant 9 Aug 2008:</u>  After the project starting date, Plantar’s plantations have evolved in accordance with its CDM projects, i.e. establishment of ~3300 ha per year, with the objective of having 100% of the production of iron based on renewable charcoal. Due to eligibility constraints, only half of these plantations are included in the A/R CDM project activity. Figure 27 in the PDD has been clarified, and includes only the plantations established on eligible areas. Although the A/R rate is not applicable (see explanation on CAR 6), the A/R activities occurring after the A/R project starting date would not be included in the estimation of an eventual rate anyway, since they also resulted from the CDM. The only reason why they are not currently included in this A/R activity is the eligibility criterion. The revised text is highlighted in the second bullet point of section C.2.  <u>Audit team 15 Sep 2008:</u>	<input checked="" type="checkbox"/>

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		<p>The response above only refers to reforestations after start date. Indications on baseline reforestations (prior to project start) have been erased in 2<sup>nd</sup> version of PDD. In line with CAR above, baseline reforestation rates of the entity shall be provided and considered.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>See response to CAR 8.</p> <p><u>Audit team 1 Oct. 2008:</u></p> <p>Item covered and closed through CAR 8.</p>	
<p><b><u>Clarification Request No. 7.</u></b></p> <p>Please indicate average grazing intensity in the region in order to sustain hypothesis of non-existence of regeneration. Discuss the possibility of regeneration per baseline strata (including degraded land).</p>	C.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Further details are provided in the 5<sup>th</sup> bullet point of section C.2 of the proposed PDD, indicating that the grazing intensity in the project area was higher than the national and regional ones. In addition, scientific literature was used as reference to sustain, at the technical level, that no regeneration of trees was expected while grazing was in place.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Over-average grazing prior to project start underlines eligibility of lands.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request No. 8.</u></b></p> <p>Clarify and potentially include to Monitoring Plan the monitoring of the strata.</p>	C.4.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The monitoring items for stratification were included in section E.2.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The item was included in text and also parameter E.1.27</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request No. 9.</u></b></p> <p>In section C.5.2 it is considered necessary to review terminology (strata as per stratification versus baseline scenario to be defined in this chapter). Defined baseline scenario per strata</p>	C.5.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Section C.5.2 was revised and the changes in the text were highlighted. As detailed in the PDD text, the adoption of one single baseline scenario stratum considered as high grassland in its peak carbon stocks is deemed to be a conservative approach.</p>	<input checked="" type="checkbox"/>

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needs to be indicated.		<p><u>Audit team 15 Sep 2008:</u></p> <p>The adaptation is in line with Request and the approach deemed tracable. The calculation of baseline stocks is covered through CAR 20.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>Annex 3 was revised, as per the PP's response to CAR 20.</p> <p><u>Audit team 1 Oct. 2008:</u></p> <p>Item close in line with response to CAR 20.</p>	
<p><b><u>Clarification Request No. 10.</u></b></p> <p>Please indicate in further detail why the project activity is not a legally required activity (in light of legislation from 1991)</p>	C.6.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Brazilian legislation, including legislation from 1991, does not impose the use of coal coke or renewable charcoal as reducing agents in the iron production process. Further information has been provided in Sub-step 1b and also in the sub-step 2b of Section C.5.1.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The audit team follows the argumentation line that there are no legal requirements on reforestation.</p>	☑
<p><b><u>Clarification Request No. 11.</u></b></p> <p>Independent evidence on the existence and the prohibitive character of each of the barriers included to the PDD shall be provided. Further elaborate and discuss how the different alternatives are prevented by these barriers (as included to table 9)</p>	C.6.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Independent evidence on the existence and the prohibitive character of each barrier was included and highlighted throughout the PDD text. Table 9 was renumbered as figure 32, which analyzes the impact of each barrier in each alternative scenario, demonstrating facts and evidences.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Table overview on barriers was reviewed and is considered adequate. Please provide set of actual evidence documents to audit team. Links to secondary sources are not sufficient. For this, sustain with evidence that regular loans with 7 y grace period are not available and that the financing of this project has become possible through carbon finance / CDM (i.e</p>	☑

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		<p>through statement by financing entity).</p> <p>In regard to international finance – it is considered credible that a regional company has no access to international sources.</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>BDMG (Minas Gerais State Development Bank) official statement, confirming the scarcity of funds and that financing was provided based on carbon credits, was submitted on September 1<sup>st</sup>, 2008. Evidence of investment barriers referenced in Figure 32 of the PDD were compiled in PDF documents and submitted by email, as requested.</p> <p><u>Audit team 1 Oct 2008:</u></p> <p>The received evidence is considered to sustain that regular funding through the CDM component would not have been possible (while also taking into account the conditions at starting date).</p>	
<p><b><u>Clarification Request No. 12.</u></b></p> <p>Clarify in the PDD the relevance of displaced fuelwood collection as potential source of leakage.</p>	D.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Further clarification was highlighted in sections D.2 of the PDD. Following the provisions of the methodology, detailed <i>ex ante</i> calculation and evidence indicating the inexistence of leakage from displaced fuel wood collection.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Statement on non-relevance of fuelwood collection is included. In line with local conditions as witnessed during the onsite visit and relatively sporadic population the exclusion of fuelwood collection is considered credible.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request No. 13.</u></b></p> <p>Clarify why the chosen approach of random definition of plot centers for sampling plots does not hamper the quality of the inventory results.</p>	E.2.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The forests stocks established under this project activity are very homogeneous, once they've been implemented in similar conditions of soil, climate, landscape and forestry management procedures. Thus, they have the same growth tendency and similar morphologic features for the</p>	<input checked="" type="checkbox"/>



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		<p>planted sprouts.</p> <p>In this sense, it's possible to apply a system of random definition of plot centers for sampling plots, as it has a low variability in the forest for the characteristics of interest. The system is based on a procedure in which there's no restriction to casualness. This means that all suitable plots of the population have the same chance to be randomized in order to compose the inventory sample.</p> <p>Considering that the plantings occurred in different dates, the substrata were subdivided by planting year. Therefore, to increase conservativeness of carbon removals measurements, each substratum was considered as an independent population and the inventories were carried out for each one of them, generating distinct sampling intensity and sampling errors.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>In line with the indications on CAR 16 the audit team concludes that the chosen approach (as implemented as standard procedure since 2000) is in line with good practice in forest inventories and capable to generate data sets of defined data quality.</p>	
<p><b><u>Clarification Request No. 14.</u></b></p> <p>For confidence level, accuracy, standard deviations (E.1.03-1.05) consider to indicate actual values in PDD. Consider also consistency with E.1.2.</p>	E.4.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The following values were indicated in the PDD:</p> <ul style="list-style-type: none"><li>- Confidence level: 95%</li><li>- Maximum Admitted Inventory Sampling Error: 10%</li></ul> <p><u>Audit team 15 Sep 2008:</u></p> <p>It is underlined that the general indications of the methodology in regard to uncertainties apply.</p> <p>As the methodology also indicates (p.50) the number of plots needs to be adapted accordingly. Thus, recording frequency "before the project start" is not appropriate and should be every 5 years (PDD p. 79)</p>	<input checked="" type="checkbox"/>

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		<p>Note: E.1.03-05 are considered to apply to initial calculations of number of plots. The initial number of plots used is considered sufficient in order to comply with these parameters. Confirmation of consistency of plot number and uncertainty requirements are suggested to be carried out based on inventory data as soon as available (before verification).</p> <p><u>Project participant 29 Sep 2008:</u></p> <p>Monitoring intervals of the items related to the confidence level, accuracy and number of samples plots of the inventory procedures were revised. Recording frequency of parameters E.1.2.01-02 and E.1.03-07 were changed to every 5 years, as requested.</p> <p><u>Audit team 1 Oct 2008:</u></p> <p>The monitoring requirements have been adapted. These parameters need to be regularly assessed within the context of monitoring. Good practice guidance is applicable as per methodology.</p>	
<p><b><u>Clarification Request No. 15.</u></b></p> <p>Further details on operating structure to be given in the PDD.</p>	E.7.	<p><u>Project participant 9 Aug 2008:</u></p> <p>An organizational chart and further information on the project entity's management structure were provided as requested.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>The information was updated in the PDD.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request No. 16.</u></b></p> <p>Please indicate if the person/entity is also a project participant listed in Annex 1 of this document and clarify consistency of Worldbank and IBRD.</p>	E.8.	<p><u>Project participant 9 Aug 2008:</u></p> <p>Section E.8 was revised. Changes in the text of the PDD were highlighted.</p> <p><u>Audit team 15 Sep 2008:</u></p> <p>Changes have been carried out accordingly. Plantar is a participant.</p>	<input checked="" type="checkbox"/>
<p><b><u>Clarification Request No. 17.</u></b></p> <p>The activities / parameters actually to be</p>	F.3.	<p><u>Project participant 9 Aug 2008:</u></p> <p>The specific monitoring parameters related to environmental impacts were</p>	<input checked="" type="checkbox"/>

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monitored over time in the field of environmental impacts shall be further clarified and clearly indicated in the PDD. Include more specific indications the parameter to be monitored, on source of data and frequency.		included in section F.3. <u>Audit team 15 Sep 2008:</u> The monitoring parameters are adapted and monitoring requirements are specified. Compare also CAR 18.	




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

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Reference No.	Document or Type of Information		
1.	On-site interviews at the offices and the project site of the project “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil“, performed between 28-31 May 2008		
	Interviewed persons:		
	1	Tatiane de Oliveira Heck	Planning Assistant, Plantar
	2	Carlos Augusto Z. Toneli	Forestry Analyst, Plantar
	3	Sandro Longuinho	Forestry Planning, Quality and Research Manager, Plantar
	4	Rodrigo Ferreira	Carbon Project Analyst; Plantar
	5	Thiago de A. Mendes	Carbon Project Analyst; Plantar
	6	Luiz C. Goulart	Carbon Project Manager, Plantar
	7	Fabio N.A. Marques	Carbon Project Manager, Plantar
	8	Fabiano Goulart	Environmental Analyst, Plantar
	9	Cristiana Oliveira	Carbon Project Analyst, Plantar
	10	Adauta Cupertino de Oliveira	Forestry Consultant
2.	Project Design Document, Vers. 01 used for GSP and final version 03a		
3.	Methodology AR- AM0005, version 01		
4.	Plantar presentation CD / marketing documentation.		
5.	Environment Impact Assessment (RIMA), UNISE MG03, PLANTAR elaborated by DEL REY Serviços de Engenharia Ltda		
6.	Environment Impact Assessment (RIMA), UNISE MG04, elaborated by PLANTAR DEL REY Serviços de Engenharia Ltda		

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Reference No.	Document or Type of Information
7.	Operating Licence MG03 and Operating Licence MG04 Governo do estado de Minas Gerais, Secretaria de Estado de Meio Ambiente desenvolvimento sustentável, Conselho Estadual de Política Ambiental – COPAM, Instituto Estudaõ de Florestas – IEF
8.	Confirmation of non-diversion of ODA by the Netherlands, letter dated 19 August 2008
9.	Set of digital GIS files on project boundary for MG 03 and 04, submitted 25 May 2008
10.	Recertification evaluation of the plantation forests of Plantar S.A. in the Curvelo region in the Minas Gerais state Brazil; SCS, USA, last version, June 2006; Certification Registration Number SCS-FM/COC-00057P
11.	Relatório De Auditoria Anual Fsc 2007, Plantar S.A., Certification Registration Number SCS-FM/COC-00057P
12.	Management Plan for forest operation, MG-02, MG-03, MG-04, Curvelo, May 2008
13.	Set of SOPs - Working manual for forest management, irrigation, fire management, etc; Plantar, Jan 2008
14.	Vegetation Inventory Report (Land eligibility study), MG03, 04, Belo Horizonte, Adauta Cupertino de Oliveira, 3/2008
15.	Ownership confirmation of properties MG03 / MG04, land contracts and partially land titles, as submitted on 29 May 2008
16.	Declaration by previous land owners, indicating that the sale of land will not lead to deforestation, from 2003-2008. (This was furthermore completed by a set of questionnaires on prior animal stocks and animals displaced for each former owner.)
17.	Scolforo, J.R. 2006: Land use and forestry map of Minas Gerais (Mapamiento e inventario da Flora Nativa e dos Reflorestamentos de Minas Gerais), and UFLA 2007 Minas Gerais Agriculture Department (2007), land use statistics.
18.	TARAM Calculation sheets for project activity – Excel sheets, final version Nov. 2008
19.	Estoque De Carbono em sistemas aAgrosivlopastoril, 2004 and Organic Carbon and C Content in soils of Amzonia, 1993
20.	Brazil's contribution to prevent climate change, Whitepaper 2007
21.	Letter of secretary of environmental affairs Minas Gerais directed to World Bank, 4.April 2003, promoting Plantar CDM project

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Reference No.	Document or Type of Information
22.	2000 as starting year: Letter of no-objection on Plantar Reforestation Project in the context of future CDM project, by Ronaldo Mota Sardenberg, State Minister of Science and Technology (Interministerial Commission of Global Climate Change), dated 30.8.2000
23.	2000 as starting year: Communication with Worldbank on future CDM reforestation project hosted by Plantar, dated 26. Oct 1999
24.	“Pre-PDD” dated March 2000, issued by Plantar
25.	Ecosecurities, Baseline determination report for the Plantar –PCF project Sep 2001
26.	The sector forestal and development over time in Brazil, FAO, accessed via <a href="http://www.fao.org/forestry/country/en/">http://www.fao.org/forestry/country/en/</a> in Nov 2008
27.	Crescimento, Producao de biomasa e eficiencia nutricional de Eucalyptus spp. sobre tres espacamientos, em uma sequência de idades, Study provided by Plantar during onsite visit, May 2008
28.	Ladeira 1999, Scientific study on BEF and RS
29.	SPP Eucalyptus - software for plantation management, Print of inventory data generated during onsite visit.
30.	Matrix of environmental impacts MG03
31.	Matrix of environmental impacts MG04
32.	Letter for stakeholder comments (sent in Nov 2006)
33.	Communication with Foundation FBOMS, dated 8 Dec 2006
34.	Interview Notes on Eligibility with Consultant: AdautaCupertino de Oliveira
35.	Reglemantation Norm NR 31, 2005
36.	GPS Points gathered in onsite visit to Plantar– Excel Sheet, May 2008
37.	BEF Root Shoot Ratio – Excel Sheet on averages developed.
38.	Planilhas Startification – Excel sheet on stratification and stand characteristics
39.	Final PDD version 03, dated 4 Nov 2008

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Reference No.	Document or Type of Information
40.	Plantar forest management data as extracted from forest management system during onsite visit in May 2008
41.	Fotos of project area, as taken during onsite visit in May 2008
42.	Field Data sheet on eligibility of lands as compiled during onsite visits, May 2008
43.	Crescimento e producao de gramineas forrageiras em amostras de latossolo, Artigo Cientifico; provided during onsite visit, May 2008
44.	40 years of eucalyptus, Boletim do Plantar, 2007
45.	Landers 2007, Tropical Crop-livestock systems in Conservation Agriculture, FAO
46.	Newspaper article / Gazeta mercantil from April 2002 on financing agreement with Robobank
47.	Letter of approval and authorization by DNA of Netherlands, dated 21 May 2008
48.	Histórico das taxas de juros, <a href="http://www.bcb.gov.br/?COPOMJUROS">http://www.bcb.gov.br/?COPOMJUROS</a> (accessed on 09/24/08).
49.	Dinheirama - Economia, Investimentos e Educação Financeira ao alcance de todos O que é o tal grau de investimento?, Publicado por Conrado Navarro em 19.06.2007 na seção Economia Geral (análisis of risk rating for Brazil and long-term investments)
50.	Banco Desenvolvimento de Minas Gerais S.A., BDMG Resolução 201-B ANEXO XII-, policy on guarantees to be provided for loans, dated April 2008
51.	Banco Desenvolvimento de Minas Gerais S.A., Declaração / letter, dated 11 August 2008 (underlining insufficient funding of state reforestation programs Pro-Floresta as to cover complete demand for reforestations and relevance of CDM project as guarantee for loans in the case of Plantar).
52.	Letter of DNA directed to Plantar, dated 29 Jan 2009, requiring adaptations in PDD



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- A. The following entities / persons have submitted comments of highly similar or identical content. The responses and conclusions in regard to the relevance of these comments have been processed and elaborated in a combined manner. As the comments raised several issues, each issue is replied to separately.

Comments have been provided by:

- Klemens Laschefski, Federal University of Viçosa, Brazil
- Jutta Kill, FERN
- Wolfgang Kuhlmann, ARA (Working Group on Rainforests and Biodiversity, Germany)
- Carbon Trade Watch, International and Carbon Trade Watch International and Nou Sud / Marc Masmiquel (three identical comments submitted)
- World Rainforest Movement on behalf of Movimento Mundial pelas Florestas Tropicais,
- FASE/ES and FASE NACIONAL (two identical comments submitted)

Comment	Reply by Project Participants (PPs)	Audit conclusion
<b>1. Additionality/Baseline:</b> <i>“The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003”</i>		
<u>Baseline:</u> The current Project Design Document (PDD) appears to advance two different baseline and additionality arguments. One appears to be a remnant of the project’s previous additionality argument that in the absence of CDM funding, the company would have had to switch to using mineral coal in its pig iron production. In the previous PDD, the Plantar Baseline stated:  <i>“...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:</i>	This A/R CDM project activity has not been submitted for validation before. A non-A/R component of the CDM project activities developed by the project entity was validated in 2002 by a different DOE, as per the applicable regulations at that time. The PPs have not submitted it to registration because they decided to wait for the completion of the A/R modalities and procedures. Then, PPs had to develop the related CDM methodologies, as per the ongoing evolution in CDM regulations, which took time. The additionality argument is as valid as it was when the projects were conceived and started in association with the World Bank’s Prototype Carbon Fund. In fact, it has become even stronger over time.	The comment / argument on the fact that in absence of the reforestation project the demand of charcoal or coal Plantar’s iron production would need to be provided from other sources is not considered to change or impact the additionality discussion as documented in the PDD, scrutinized in the audit and summarized in the validation report (compare alternatives identified and barriers presented).  In conclusion, all relevant alternatives and baseline scenarios have been documented and discussed.

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<ul style="list-style-type: none"> <li>• <i>An accelerated reduction in the plantation forestry base in the state of Minas Gerais, within the next decade, caused by harvesting of existing forests (now in the last cycle of their rotations) and lack of investment into replanting”</i></li> <li>• <i>The reduction of the forest base leads to scarcity of charcoal as a raw material for the small independent pig iron sector. This leads to the gradual decline and eventual death of this market segment”. [Baseline Study, p 25].</i></li> </ul> <p>The current PDD continues to advance this argument: <i>“Whereas, the vast majority of the Brazilian iron production is based on coal coke (see <b>Figure 23</b>) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal.”</i></p>	<p>As widely known in Brazil and documented in the PDD, the country has been facing a major deficit of renewable charcoal for iron and steel making for a long time, especially since the end of the fiscal incentives for the establishment of planted forests, in 1988. During the fiscal incentives program, there were more than 2,5 million hectares of planted forests for renewable charcoal. At the time the project started 2000, i.e. after the end of the fiscal incentives, there were less than 1,6 million hectares, and today there are less than 1,1 million hectares, which clearly corroborates the lack of investment in new plantations (replanting). On the other hand the production of iron and steel has increased by more than 30%, and the Brazilian economy has rapidly been opened which further stimulated the use of coal. The quotation below provides a good summary of these trends:</p> <p><i>“Nevertheless, fiscal incentives to plant forest were removed in the late 1980s, decreasing and even stopping the establishment of new forests. Moreover, the wave of opening of the national market to imports led to the increase in coke production, encouraged by its immediate availability and cost-effectiveness, which was lower if compared to the cost of implanting and maintaining a forest. During the 1990s, the privatization of integrated steel and iron industries resulted in the shutdown or conversion of charcoal furnaces into coke furnaces. This scenario led many small and independent steel and iron industries to close because of the difficulty finding enough charcoal to keep their blast furnaces working” (Brazil, 2007).</i></p> <p>With the lack of renewable charcoal, the alternatives would</p>	<p>For the actual areas included to the project the continuations as grassland (scenario 1) was the mostlikely land use scenario prior to project start – as discussed in the validation report and as sustained by regional data and land use change and reforestation trends for the region. (compare sources is Information Reference List).</p> <p>Compare also what has been actually documented in the PDD on reforstation rates under baseline conditions / in absence of the project. See also explanations in the row below on this matter.</p>
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	<p>be the use coal coke or non-renewable charcoal. The quotation on the left side of this table referring to the use of non-renewable charcoal in the past is correct. But, when taken out of the PDD context it may be misleading. The PDD clearly explains the increasing legal restrictions to the use of non-renewable charcoal (a scenario that does not meet legal requirements). As such, it is not difficult to conclude that with the lack of renewable charcoal from planted forests, and with the legal restrictions to the use of non-renewable charcoal, the remaining alternative and most likely scenario in the absence of the project is the use of coal coke (absence of carbon stocks), which is being the basis for the expansion of the iron and steel production in Brazil. A very similar scenario has taken place at the international level, i.e. coal coke has prevailed with the scarcity of natural forests, especially after the industrial revolution. Today, more than 98% of the world's blast furnace iron production is based on coal coke.</p> <p>The facts, evidence and arguments herein presented and referred to have been provided in the PDD and the project has met all requirements of the additionality tool, as required by the methodology and validated by the DOE.</p>	
<p>When viewed in the context of Plantar's total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for <i>only 11,711 hectares</i> of new plantations, an amount equal <i>to about 3% of its total holdings</i>, it will not invest in replanting.</p>	<p>Within the Plantar Group, a medium sized family enterprise, there are different companies that perform separate business activities, especially the provision of forest management services to other companies in Brazil, which have no relationship with its iron production. As in any business group, each business activity has its own opportunity costs and its own dynamics. Plantar does not own 690,000 hectares nor 103,000 hectares of plantations. The area required to supply the pig iron production is of approximately 23,000 hectares, which have been under its</p>	<p>It was confirmed with the PP that the data provided as comment on larger areas of plantation operations (690.000 ha) and plantation ownership (103.000 ha) is not correct. The information provided by the PP is consisted with earlier analysis.</p> <p>It was noted that in the comments supplied to the DOE the commenting enties did not provide the sources for these indications.</p>

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	<p>current CDM project activities since 2000. Nonetheless, only 11,711 ha included in the A/R CDM project activity at stake (tCERs due to net GHG removals) because of A/R eligibility constraints. The remaining part is included in the other CDM components (CERs from the use of renewable charcoal in the blast furnace). Other areas operated by Plantar are part of separate business or projects, which are not related with the current A/R CDM project activity, e.g. legal reserve areas, areas for the conservation of native forests, wood for construction appliances, furniture and the provision of forest management services to third parties.</p>	<p>The statement of the PP that at the point of validation only a part (around 50%) of their plantations (aprox 23.000 ha) was included is correct. In comparison to earlier stages of initial PDD design, the UNFCCC land eligibility criteria have undergone changes in the course of time. This has also impacted the area included to the project. Only AR-CDM eligible area was included to the project.</p> <p>In conclusion, the relevant information on areas has been considered in the audit.</p> <p>Further comment on baseline action: The presence and consideration of a “baseline reforestation rate” for Plantar (this argument is considered to be indirectly included to this comment) was fully discussed and analyzed in the validation process (compare Annex 1 of validation report). As per methodology, entity specific and / or regional reforestation rates were considered and discounted from overall carbon sequestration.</p>
<p>It is furthermore claiming that this will lead to “<i>scarcity of charcoal</i>” and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the ‘sustainable supply’ with charcoal for the company’s entire pig iron production: “<i>Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008</i>”. No explanation is provided for these</p>	<p>See explanations above regarding the project’s related iron production and the scarcity of renewable charcoal. Indeed, as a result of the CDM, Plantar has become the first company capable of producing 100% of its iron output based on renewable charcoal, as further explained and documented in the PDD. There is no contradiction between this fact and the scarcity of renewable charcoal in the industry. The prevailing scarcity of renewable charcoal since the project’s starting date reinforces the project’s additionality (see the PDD for a complete assessment of the baseline, additionality and of the key barriers). Indeed,</p>	<p>In regard to comments to pig iron production it is underlined that the boundary of this project contains only the reforestation.</p> <p>The discussion on the wording “first-of-its kind” as used in the PDD was not further traced by the validator. It is underlined that this is not referring to the “first of its kind” term as used in the CDM context - but simply describes the PP’s intention to be the first company in Brazil that fully supplies big iron production (not included to this</p>

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seemingly contradictory statements and assumptions.	the establishment of new planted forests for the production or renewable charcoal is broadly recognized as one of the main problems to be overcome by Brazil, as explained throughout the PDD and in this document.	project) with charcoal (not included to this project) through wood produced in a plantation (activity of this project).  In conclusion the aspect of the proportion of pig iron produced with sustainable charcoal is not considered decisive for the baseline and additionality approach as presented in this project. All relevant aspects have been considered.
Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company's overall profitability and its decision about future investments. It is also hard to see how the loss of only 3.3% of its total plantations could lead to a "scarcity" in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig iron industry.	This is not correct. See explanations above.	This section of the comments put the project at doubt in a general manner while not providing specific arguments. All relevant contents on additionality and baseline setting are considered in the PDD and the validation.
<u>Common practice</u> Furthermore, the following news article from 2004 suggests that contrary to statements in the project documentation, plantations for charcoal productions were expanding significantly in Minas Gerais, and charcoal was available at a price well below the price of mineral coal. Neither the project proponents nor the DOE appear to have taken note of these facts or seen any need to acknowledge these trends in project documentation	Even though 2004 is after the project's starting date, it is important to clarify that there was indeed an increase in the planted area in 2004 in absolute terms (supply side). However, as explained and documented in the PDD, the production (demand side) of iron has increased much more, resulting in an ex-post increase of the deficit of renewable charcoal, which has been the historic and projected trend (see Graph on Section C.5). Even if the production of iron ever falls to its historical low (extremely unlikely due to the Brazilian growth), the use of renewable charcoal from planted forests would still be very far from being the common practice in the industry. Actually, the	In general it is underlined that the view on the additionality / common practice of project action needs to consider the historic situation and setting prior to project start. The reference provided by the commenting entity is dated after project start and is therefore not considered relevant. The audit team noted some further plantation action in the region, mostly installed posterior to the starting date of this project. This was discussed and analyzed in the audit process. And as highlighted previously, reforestation at

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	<p>2004 article itself also notes the ongoing deficit of planted forests for renewable charcoal, in spite of the absolute increase in that year.</p> <p>The same rationale applies for the potential effects of price changes, as documented and explained in the PDD, i.e. in spite of increases in iron/charcoal prices the deficit of renewable charcoal has also increased. This points to the existence of market failures in the use of renewable charcoal. In fact, there is no structured market for renewable charcoal, since there is no excess amount to the residual use at the firm level. Even if the price of coal relative to the price of charcoal goes down in one or two years (which is usually unlikely, given the higher transaction costs and capital costs of renewable charcoal – often not considered), the historical, current and project trends clearly indicate that these price changes have not been substantial to the point of eliminating the risk aversion to renewable charcoal and stimulating its relative increase. One of the many reasons for that is the dependence on an extremely long-term investment decision (up to 28 years) with a far greater degree of unpredictability and uncertainty than the use of coal. Coal is a the most readily available fossil fuel in the world, a global commodity, and benefits from several internal and external economies of scale, standardized markets, logistic patterns and is not legally restricted. On the other hand, the use of renewable charcoal faces various barriers. See the PDD for the detailed explanation and evidence.</p>	<p>the regional level were considered as per methodology and discussed in the common practice section of the PDD.</p> <p>In conclusion, all relevant requirements and criteria have been considered.</p>
<p><b>2. “Sustainability”:</b>  <i>“The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable”</i></p>		

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<p><u>“First-of-its kind”</u></p> <p>The project claims that “the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents” will be a ‘first of its kind’ for Plantar. No further substantive evidence is given as to what other “GHG intensive reducing agents” the company has used in the past. No evidence is given that the company used coal coke in significant amounts nor does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the ‘first of its kind’ contribution of this project lies or what proportion of the reducing agent was a substance other than charcoal produced from existing eucalyptus plantations.</p>	<p>From the end of the fiscal incentives, in the late 80’s, until the CDM project started, the project entity’s plantations have varied from zero to irrelevant figures (on average, less than 8% of the annual area required to supply the iron mill). In this period, Plantar used renewable charcoal from the harvesting of its planted forests previously established <u>with the fiscal incentives</u>. Non-renewable charcoal was also used in the past, which was legal at the time, to supplement the increasing lack of planted stocks. However, as the harvesting of the plantations established with the fiscal incentives terminated, the iron production would have to be supplied either with non-renewable charcoal (legally restricted as legislation evolved) or with coal coke. Thus, given the scarcity of renewable charcoal from planted forests, at the company level and at the industry level, the most likely scenario in the absence the project has been the use of coal coke and the ensuing lack of carbon stocks. With the pioneer CDM project, started in 2000 in association with the World Bank, Plantar was able to invest in new dedicated plantations for renewable charcoal, generating the additional carbon stocks claimed under this A/R CDM activity. Accordingly, the project plantations have been established in degraded areas or in areas covered with pastureland. As they reached maturity by 2007/2008, the company has become the first to have all of its iron production based on renewable charcoal, as explained in detailed and documented in the relevant PDD sections.</p>	<p>The comment refers to use of wood in the related pig iron production (prior to project start).</p> <p>Conditions prior to project start and how the wood demand of the pig iron industry was met (not part of project boundary) are not considered relevant. However, the PP explained the pre-project setup.</p> <p>Also the aspect that Plantar intends to supply its wood demand completely through reforestation activities and how this relates to first of its kind definitions has been explained in previous sections.</p> <p>In essence, the comment is not considered relevant to the argumentation line as presented in the PDD and in the validation report.</p>
<p>The project documents further claim that “<i>As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal.</i>” Does the</p>	<p>As explained above, the related project’s iron production requires approximately 23,000 hectares of planted forests to be fully based on renewable charcoal, of which 11,711 hectares are taken from the A/R CDM activity under registration. The rest comes from other areas, which had</p>	<p>The aspect of wood supply to related industries has been discussed in the previous sections, and is not considered to impact the audit conclusions.</p>



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<p>project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn the company into a <i>“the first of its kind to have 100% of its iron production based on renewable charcoal.”?</i></p>	<p>to be removed from this A/R activity due to eligibility constraints, but are included under the non-A/R CDM project activity.</p>	
<p><u>Permanence / sustainability:</u> Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas not covered by the proposed CDM project would be ‘renewable’, let alone sustainable. This claim would be further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are ‘exhausted’. No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on ‘exhausted lands’.</p>	<p>As explained and documented in the PDD, all planted forests under the project meet the definition of renewable biomass. In fact, by definition, planted forests established for commercial and industrial purposes are renewable, since they constitute a dedicated source of wood supplies newly established for that purpose.</p> <p>As explained and documented in the PDD, the CDM was the key incentive to establish new plantations to supply 100% of the iron production. The new plantations were established in areas containing pasturelands/degraded areas (under the A/R component) and the other part (not under the A/R component) in areas that were harvested and were not replanted.</p> <p>Indeed, after the end of the project’s lifetime, one can not ensure whether or not there will be new heavy investments in the establishment of new plantations, which would be a “problem” for a potential new CDM project decades from now. That is precisely why the CDM has been so important so far, since it helped overcoming the existing barriers, allowing the establishment of the required amount of new stocks of dedicated plantations during the project lifetime. In our view, the permanence issue has already been adequately addressed by the modalities and procedures of A/R CDM, which defined A/R credits as temporary (tCERs or ICERs that can only be issued if adequately verified).</p>	<p>The comment raised the concern that the project / the reforestation is not continued up to the end of the crediting period of 30 years. The validated PDD foreseen rotation cycles of 7 years – for four times and a total of 28 years (not 21 years).</p> <p>Figure 42 of the PDD provides further details on the rotation and plantation cycle for the operational lifetime / crediting period of 30 years. The audit team considers that an overall continuation also up to year 30 is feasible as presented (also in the TARAM model), especially considering phased planting and harvesting actions on the different plots.</p> <p>Any stop of project action prior to end of crediting period would not lead to the issuance of credits – hence environmental integrity in this regard is assured based on the concept of temporary CERs.</p> <p>In conclusion, the aspect does not impact the conclusion of the audit team.</p>



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<p>The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years any of the areas that will have reached the end of their 3x 7-year rotation cycle plantations will be replaced on these areas. If they are not, how would the carbon storage the company will be obliged to ensure be ensured? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation cycle or to establish plantations on newly acquired lands?</p>	<p>See explanation above.</p>	<p>The comment consists of questions, putting at doubt long term implementation. Aspect was discussed in previous section.</p>
<p><b>3. Social and environmental impacts:</b>  <i>“A lack of substantive responses to comments submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology”</i></p>		
<p>Supposedly as evidence of having taken into consideration comments made about the significant social and environmental impacts of Plantar's eucalyptus operations, the current PDD states that <i>“Although the eucalyptus plantations for the production of wood for industrial and domestic use have contributed significantly in terms of socioeconomic development, wood productivity and environmental management quality of the plantations, some adverse public reactions to this activity are observed. Criticisms are based on ecological and social economical argumentations, some of them supported by technical parameters and others by myths and prejudice.”</i></p> <p>The SGS certification report for the FSC, a critical consultancy report highlighting the incompleteness of the SGS assessment of environmental and social</p>	<p>This project had not been submitted for CDM registration so far nor used a different methodology, as previously explained. All areas covered by the current Plantar CDM projects are certified in accordance with the principles criteria of the Forest Stewardship Council (FSC), the World's most respected forestry certification standard. FSC is supported by more than 800 NGOs, private companies and individuals, encompassing strict social and environmental criteria that go beyond legislation in Brazil, which is already quite strict. The entity that has certified the project entity is not SGS.</p> <p>Whenever comments are made on the social and environmental aspects of the project related plantations, they are assessed by independent auditors, based on periodic stakeholder consultation processes, technical and scientific literature, professional judgement, public hearings and field visits. All comments made since the</p>	<p>The comment refers to social and environmental impacts. However, no concrete impacts are indicated in the comment. It is underlined that the project is holding</p> <ul style="list-style-type: none"> <li>- the relevant environmental licences</li> <li>- has been certified according to FSC</li> <li>- has undergone all requirements for stakeholder consultation as per DNA and CDM requirements.</li> </ul> <p>The reforestation occurred on pasture land and no displacement of people has occurred. The conclusions of the validator are not impacted by the comment.</p>

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<p>impacts as well as a large number of well-referenced documents by civil society organizations and academics give testimony to the well founded “ecological and social economical argumentations” presented to substantiate the reality of significant environmental and social impacts of Plantar’s eucalyptus plantations in the region. The video exchange ‘The Carbon Connection’ visually documents some of these impacts in the project area. We will refrain from repeating the arguments and evidence already provided on previous occasions to the CDM Executive Board on the matter and refer to the following references which detail the plethora of significant negative socioeconomic and environmental impacts originating from the Plantar eucalyptus plantations.</p>	<p>very beginning of the project have been adequately addressed in accordance with FSC standards and with applicable legislation. It seems that the video has overlooked these facts and referred to points that were incorrect or misleading.</p> <p>The PPs do recognize though, the existence of some NGOs, especially some foreign NGOs, which are opposed to large scale eucalyptus plantations. In a democratic context, the PPs respect those opinions but kindly disagree. Indeed, the Plantar CDM projects, including the current A/R CDM activity and its sustainable development aspects, have been widely supported by the government, local, national and international environmental leaders, NGOs and other civil society organizations, given its climate and environmental benefits as well as the potential positive effects for one of Brazil’s most important sectors. As a matter of fact, the project has recently received the award of “best implemented CDM project in Brazil”, an initiative supported by several governmental and non-governmental organizations. Also, the Brazilian Interministerial Commission on Global Climate Change, which comprises 11 ministries, has also approved the project and its several contributions to sustainable development, as mandated by the CDM Modalities and Procedures. For more information on all of the project’s sustainable development aspects, please refer to Annex 6 of the PDD.</p>	
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## Annex 3

### Re-GSP Comments for the CDM Project: "Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil"

Date: 16 th June 2010



Comment provided in Re-GSP	Reply by Project Participants	Audit conclusion
<p><u>Additionality/Baseline:</u></p> <p>"I do not think it is fair to consider that in the absence of the project activity the iron making plants would switch iron reduction from charcoal to coal as this would be completely unfeasible. Moreover, based on information available in the international press, the Brazilian government is strongly combating deforestation of native forests for charcoal production (mainly used for the iron and steel making supply chain). Moreover, environmental regulations in Brazil are known for being strict. That means that medium and large iron making plants are supposed to use charcoal from planted forests (like the proposed project activity) anyway (regardless of CDM incentives). Thus the project is completely not additional. If this project ends up being registered this will mean that iron making supply chain will start to be compensated with carbon credits just for being in accordance with the applicable legislation. I do not think that CDM was designed to create incentive to project participants to follow the applicable environmental legislation, as they are supposed to do it anyway (according to applicable Brazilian environmental legislation)"</p> <p>(this comment was provided in addition to a procedural question on GSPs, which is considered not relevant to the project activity)</p>	<p>Indeed, environmental regulations in Brazil are quite strict. All government efforts, at state and federal levels, have resulted in legal restrictions to the use of non-renewable charcoal. That is why the alternatives left are the use of renewable charcoal from planted forests or the use of coal coke. There are no legal restrictions to the use of coal coke and there is no obligation to use renewable charcoal instead of coal coke, mostly because of economic development priorities. The use of coal instead of charcoal is not unfeasible and many companies have been switching to the former, as explained in the PDD. Coal coke will continue to play a major role in the development of the Brazilian economy.</p> <p>The project has fully complied with the additionality tool and the approved methodology, as explained in the previous answers. It has a substantial replication potential in Latin America, Asia and especially in Africa, based on south-south cooperation initiatives. Again, as explained and documented in the PDD, the deficit of renewable charcoal in Brazil and the importance of the use of the CDM as a key instrument to incentivise the use of renewable charcoal instead of coal coke is widely known and recognized by the private sector, the government and leading local and international NGOs (see also the attached documentation).</p>	<p>The comment assumes that the baseline would be the same as the project action - the implementation of plantations (due to strict environmental legislation forcing pig iron companies to reforest). Quote: "... <i>medium and large iron making plants are supposed to use charcoal from planted forests (like the proposed project activity) anyway (regardless of CDM incentives).</i>"</p> <p>As shown in the additionality analysis it was concluded that it was not obligatory nor attractive to carry out reforestations at times of project start. Barriers have not allowed plantations to materialize. Possible developments (i.e. increased obligations to reforest) may lead to other conclusions for further projects in future.</p> <p>In conclusion, the comment does not impact the audit team's conclusion on baseline / additionality.</p>

### Annex 3

Re-GSP Comments for the CDM Project: “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil”

Date: 16 th June 2010



- C. There have also been comments on the project activity by Amda - Associação Mineira de Defesa do Ambiente and the Secretary for the Environment and Sustainable Development of the State of Minas Gerais.
- The last mentioned communication was supported by the following governmental and non-governmental organizations: State Foundation for the Environment - FEAM, State Forestry Institute - IEF, Minas Gerais Water Management Institute – IGAM , Biodiversitas Foundation , Bioatlantica Institute, Conservation International, Friends of the Earth - Amazonia Brasileira, Institute for Environmental Research of the Amazon - IPAM, Minas Gerais Defense Association - AMDA , SOS Mata Atlântica , Minas Gerais Silviculture Association - AMS, Minas Gerais Iron Industry Association - SINDIFER, Brazilian Association of Planted Forests - ABRAF, Professor José Goldemberg - University of São Paulo , Professor Sebastião Valverde - University of Viçosa.
- As these comments / letters sustained and supported the information included to the PDD and the audit conclusion it was not considered necessary to make them part of the analysis carried out above. Furthermore, these comments were submitted directly to the DOE.

Validation of the CDM Project:  
Reforestation as Renewable Source of Wood Supplies for Industrial Use in  
Brazil

16<sup>th</sup> of July 2010



Industrie Service

## **Appendix A to Annex 3**

## Details on the processing of comments

### A. Comments submitted

As indicated in chapter 4 of the validation report, the GSP was repeated from 14 April 2010 and 28 May 2010. All comments submitted are available on the UNFCCC webpage at the following URL:

<http://cdm.unfccc.int/Projects/Validation/DB/DWXTGTOLAORUROS9KPVZJUSGI8UK70/vi ew.html>

The following entities / persons submitted comments (enumeration below as presented on UNFCCC webpage; responses provided in Section A and B of Annex 3):

1. Comment submitted by Chatrapati Smarak Shivaji, Madras School of Economics
2. Comment submitted by: Klemens Laschefski on behalf of Klemens Laschefski
3. Comment submitted by: Jutta Kill, FERN on behalf of FERN
4. Comment submitted by: Wolfgang Kuhlmann on behalf of Wolfgang Kuhlmann, ARA
5. Comment submitted by: carbon trade watch on behalf of Carbon Trade Watch
6. Comment submitted by: Ekologistak Martxan on behalf of Ekologistak Martxan
7. Comment submitted by: Marc Masmiquel Mendiara on behalf of Marc Masmiquel
8. Comment submitted by: FASE/ES on behalf of 2010.05-Carta Plantar Projeto MDL
9. Comment submitted by: FASE NACIONAL on behalf of 2010.05 - Carta Plantar Projeto MDL
10. Comment submitted by: World Rainforest Movement on behalf of Movimento Mundial pelas Florestas Tropicais

Furthermore, the following letters were submitted to the DOE (as indicated in section C of Annex 3)

11. Letter of AMDA (Associação Mineira de Defesa do Ambiente)
12. Letter by the Secretary for the Environment and Sustainable Development of the State of Minas Gerais, supported by
  - State Foundation for the Environment - FEAM,
  - State Forestry Institute - IEF,
  - Minas Gerais Water Management Institute – IGAM ,
  - Biodiversitas Foundation,
  - Bioatlantica Institute,
  - Conservation International,
  - Friends of the Earth - Amazonia Brasileira,
  - Institute for Environmental Research of the Amazon - IPAM,
  - Minas Gerais Defense Association - AMDA ,
  - SOS Mata Atlântica ,
  - Minas Gerais Silviculture Association - AMS,
  - MinasGerais Iron Industry Association – SINDIFER,
  - Brazilian Association of Planted Forests - ABRAF,
  - Professor José Goldemberg – University of São Paulo ,
  - Professor Sebastião Valverde - University of Viçosa.
  - WWF Brasil

## **B. Processing of comments**

As indicated in Annex 3, the comments have been processed by the DOE in a consolidated manner. In order to document that the consolidation as carried out by the DOE is fully covering and addressing the comments received during the fresh Global Stakeholder Process, all comments have been included in the section D of the present Appendix.

Subsequently, the sections which are identical in the different comments were numbered and colour coded in both, the different comments as well as Annex 3. In this manner it becomes clear which sections constitute repetitions in the comments and it is documented that these sections are duly covered. It is underlined that the DOE has carefully analyzed all sections of the comments received (this also applies to sections not color-coded), and that Annex 3 covers all content included to the comments which is relevant to the scope of a CDM validation process. In addition, it was noted that comments 5) and 6) are identical. Comments 8), 9), and 10) were submitted in Portuguese and constitute a free translation of the same text highlighted in all comments.

Furthermore, it is confirmed that the DOE has considered all comments. No comment was ruled out because of an eventual lack of understanding of the comments by the DOE. Whether or not the commenting entity indicated sources, the comments were understood, e.g. the sentence used by the DOE on page 3 of Annex 3 "the commenting entities did not provide the sources of these indication" does not mean that the DOE rejected the comment because no sources were indicated. Rather, the comment was considered and was found not relevant for the purposes of the CDM validation. In essence, the DOE found the comments sufficiently substantiated and all aspects raised on the CDM compliance of the project activity have been further analyzed. It is underlined that key aspects discussed in the comments were previously already documented in the validation process (compare audit report and Annex 1). Thus, Annex 3 needs to be viewed complementary to the remaining content of the report.

## **D. Colour coding of comments**

On the following pages, the colour coding of all received comments is documented.

<http://cdm.unfccc.int/Projects/Validation/DB/DWXTGTQLAORUROS9KPVZJUSGI8UK70/view.html>

**Compilation of submitted inputs:**

Dear sirs

How can TÜV SÜD Industrie Service GmbH webhost a PDD if it is still suspended by the CDM-EB? Is this in accordance to the CDM rules? Have the CDM validation been contracted prior to the suspension?

I do not think it is fair to consider that in the absence of the project activity the iron making plants would switch iron reduction from charcoal to coal as this would be completely unfeasible. Moreover, based on information available in the international press, the Brazilian government is strongly combating deforestation of native forests for charcoal production (mainly used for the iron and steel making supply chain). Moreover, environmental regulations in Brazil are known for being strict. That means that medium and large iron making plants are supposed to use charcoal from planted forests (like the proposed project activity) anyway (regardless of CDM incentives). Thus the project is completely not additional. If this project ends up being registered this will mean that iron making supply chain will start to be compensated with carbon credits just for being in accordance with the applicable legislation. I do not think that CDM was designed to create incentive to project participants to follow the applicable environmental legislation, as they are supposed to do it anyway (according to applicable Brazilian environmental legislation)

Chatrapati Smarak Shivaji  
Madras School of Economics  
Chennai, India

shivaji\_mse@hotmail.com

Submitted by: Chatrapati Smarak Shivaji

Submitted by: Chatrapati Smarak Shivaji



## Comments on the Plantar project from Klemens Laschefski, Federal University of Viçosa, Brazil.

### Introduction

As a researcher of the Department of Geography, Federal University of Viçosa, Brazil, I do not believe that the project '**Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil Version: 03a**' should be registered or validated. Knowing the project through own researches since 2003, (LASCHEFSKI, 2005, 2008, see references below), I doubt that the project contributes in any way to sustainable development in the region, as claimed by the Clean Development Mechanism. My main concerns refer to numerous social problems and tensions between the proposed "reforestation activities" and local people which have not been addressed properly through an independent evaluation body, well documented in the references listed below. After participating in two Stakeholder meetings organized by the FSC certification body SGS I must state that the arguments of local people - particularly with respect on water-shortages and contamination with agrochemicals after the implementation of the plantations - have not been taken in account or even have been declared as myth. However, the certification report itself did not present any scientific evidence that would proof that the well known and common impacts of fast growing tree plantations on superficial and groundwater in semiarid regions does not exist in this specific project area (for a further discussion and review of bibliography see LASCHEFSKI, 2005). Further social problems with respect on environment have been mentioned in a UN-Report of the *National Thematic Rapporteurs on Economic, Social and Cultural Human Rights in Brazil* (LEROY, J., SILVESTRE, D, R. 2004)

Besides that, I would like to underline following arguments:

- (a) In relation to the technical requirements for CDM registration:
  1. The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003;
  2. The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable.
- (b) In relation to significant social and environmental impacts:
  4. A lack of substantive responses to comments submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology.

### A note on the history of the Plantar project's attempts at CDM registration

The original Plantar offset project proposal which was included into the World Bank Prototype Carbon Fund was designed prior to the decision made at COP6.5 to exclude 'Avoided Deforestation' as an eligible project category for the Clean Development Mechanism (CDM).

The project's 'additionality' argument had been developed to fit with these anticipated CDM rules. In 2002, the World Bank admitted in correspondence with CDM Watch that it had changed the project design "*radically to eliminate the risk that the project would be seen that way [ie as avoided deforestation] by the Parties/EB [Executive Board of the CDM]*"<sup>i</sup>. Yet even the current Project Design Document continues to allude to the risk of 'illegal' harvesting of timber to supply charcoal for pig iron production should extra funding to maintain charcoal plantations not be forthcoming.

The second version of the Project Design Document related to tree plantations for which Plantar was seeking CDM registration, claimed that in the absence of revenue from CDM registration and sale of CDM credits, the company would have had to switch from using charcoal to using coke coal as a reducing agent in its pig iron production. At the time, FERN submitted extensive comments on the proposed methodology for this project. The arguments and data submitted then remain as valid today as they were then. Traces of this argumentation further remain in the current project design document which continues to claim that the company would have begun to use mineral coal in its pig iron factories. The current Project Design Document thus represents the third attempt of the project proponents to achieve CDM registration. In the course, three different additionality arguments and baselines have been used in an attempt to substantiate the project's claims that the plantations, which were established in 2000 according to statements in the current documentation would not have been established had it not been for the expectation of CDM revenue. According to the project documents, the expectation of CDM offset revenue also was an important factor in the negotiation and signing of a financial loan structure with the Rabo Bank, with the World Bank Prototype Carbon Fund advance purchase agreement (ERPA) supposedly also playing an important role: "*The CDM has already helped reversing a substantial part of the above-mentioned barriers. [...].the project entity has been able to seek revenues by selling part of the project's emission reductions and removals (a total of US\$5.3 million) to the World Bank's Prototype Carbon Fund.*" And further: "*This transaction has only been possible and the project only became bankable due to its eligibility to the CDM and carbon credits. [...].*"

It must be hoped that the existence of these agreements, and the possibility of delays in repayment of a loan approved on the expectation of a CDM registration and offset credit generation will not have been of consideration in the decision of TUEV SÜED to recommend the project for validation!

Our specific comments follow:

### 1. Questionable Additionality arguments

The current Project Design Document (PDD) appears to advance two different baseline and additionality arguments. One appears to be a remnant of the project's previous additionality argument that in the absence of CDM funding, the company would have had to switch to using mineral coal in its pig iron production. In the previous PDD, the Plantar Baseline stated:

“...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:

- An accelerated reduction in the plantation forestry base in the state of Minas Gerais, within the next decade, caused by harvesting of existing forests (now in the last cycle of their rotations) and lack of investment into replanting”
- The reduction of the forest base leads to scarcity of charcoal as a raw material for the small independent pig iron sector. This leads to the gradual decline and eventual death of this market segment”. [Baseline Study, p 25].

The current PDD continues to advance this argument:

“Whereas, the vast majority of the Brazilian iron production is based on coal coke (see **Figure 23**) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal.”

When viewed in the context of Plantar’s total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for only 11,711 hectares of new plantations, an amount equal to about 3% of its total holdings, it will not invest in replanting. It is furthermore claiming that this will lead to “scarcity of charcoal” and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the ‘sustainable supply’ with charcoal for the company’s entire pig iron production: “Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008”. No explanation is provided for these seemingly contradictory statements and assumptions.

Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company’s overall profitability and its decision about future investments. It is also hard to see how the loss of only 3.3% of its total plantations could lead a “scarcity” in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig iron industry.

## 2. Claims of sustainability lack substantive evidence

The project claims that “the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents” will be a ‘first of its kind’ for Plantar. No further substantive evidence is given as to what other “GHG intensive reducing agents” the company has used in the past. No evidence is given that the company used coal coke in significant amounts nor

does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the ‘first of its kind’ contribution of this project lies or what proportion of the reducing agent was a substance other than charcoal produced from existing eucalyptus plantations.

The project documents further claim that “As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal.” Does the project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn the company into a “the first of its kind to have 100% of its iron production based on renewable charcoal.”? Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas not covered by the proposed CDM project would be ‘renewable’, let alone sustainable. This claim would be further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are ‘exhausted’. No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on ‘exhausted lands’.

The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years any of the areas that will have reached the end of their 3x 7-year rotation cycle plantations will be replaced on these areas. If they are not, how would the carbon storage the company will be obliged to ensure be ensured? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation cycle or to establish plantations on newly acquired lands?

#### 4. Social and Environmental Impacts

Supposedly as evidence of having taken into consideration comments made about the significant social and environmental impacts of Plantar’s eucalyptus operations, the current PDD states that “Although the eucalyptus plantations for the production of wood for industrial and domestic use have contributed significantly in terms of socioeconomic development, wood productivity and environmental management quality of the plantations, some adverse public reactions to this activity are observed. Criticisms are based on ecological and social economical argumentations, some of them supported by technical parameters and others by myths and prejudice.”

The SGS certification report for the FSC, a critical consultancy report highlighting the incompleteness of the SGS assessment of environmental and social impacts<sup>1</sup> as well as a large

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<sup>1</sup> Hammond, Herb (2004): *Initial Review of Forest Stewardship Council Certification of*

number of well-referenced documents by civil society organizations and academics give testimony to the well founded “ecological and social economical argumentations” presented to substantiate the reality of significant environmental and social impacts of Plantar’s eucalyptus plantations in the region. The video exchange ‘The Carbon Connection’ visually documents some of these impacts in the project area. We will refrain from repeating the arguments and evidence already provided on previous occasions to the CDM Executive Board on the matter and refer to the following references which detail the plethora of significant negative socioeconomic and environmental impacts originating from the Plantar eucalyptus plantations.

***Some references substantiating the significant social and environmental impacts***

- Calazans, M. et al. (2006) “Brazil: Handouts for Repression as Usual” in Lohmann, L., ed. *Carbon Trading*, Uppsala.
- Carrere, R., Lang, C., Soares, M. et al. (2003) *Certifying the Uncertifiable: FSC Certification of Tree Plantations in Thailand and Brazil*, Montevideo.
- LASCHEFSKI, Klemens (2008). O Comércio de Carbono e a Industrialização de Paisagens - Bioenergia e Conflitos Socioambientais. In: Marcos Costa Lima. (Org.). *Dinâmica do Capitalismo Pós-Guerra-Fria - Cultura Tecnologia Espaço e desenvolvimento*. São Paulo: UNESP., v. , p. 281-306.
- Laschefski, K. (2005) O comercio de carbono, as plantações de eucalipto e a sustentabilidade de políticas públicas – uma análise geográfica. In: ZHOURI, A.; LASCHEFSKI, K.; BARROS, D. P. (Org.) (2005). *A insustentável leveza da política ambiental: desenvolvimento e conflitos socioambientais*. Belo Horizonte: Autêntica.
- Leroy, j. Silvestre, P. (2004) Relatório Nacional para o Direito Humano ao Meio Ambiente – Relatório da Missão no Estado de Minas Gerais, Plataforma DHESC Brasil, Rio de Janeiro.
- Lohmann, L. (2005) “Marketing and Making Carbon Dumps: Commodification, calculation and counterfactuals in climate change mitigation”, *Science as Culture* 14 (3): 203-35.
- (forthcoming) “Toward a Different Debate in Environmental Accounting: The cases of carbon and cost-benefit”, *Accounting, Organizations and Society*  
doi:10.1016/j.aos.2008.03.002.
- Valentim, R., Calazans, M. et al. (2003), *Where the Trees are a Desert: Stories from the Ground*, Amsterdam.
- Gilbertson, T. et al: *Carbon Connection*. Community video letter exchange between communities affected by the Plantar operations and communities in Grangemouth, Scotland. Available at [www.carbontradewatch.org](http://www.carbontradewatch.org)
- Civil society letter (2002) Letter to Investors of the World Bank Prototype Carbon Fund March 2003 (attached).
- Hammond, Herb (2004): *Initial Review of Forest Stewardship Council Certification of Plantation Forests of PLANTAR S.A.* (attached).
- Civil Society letter (2010) Plantar S.A. CDM project: Global warming continues unabated. Civil Society letter signed by over 50 organisations

**Conclusion**

The comments above, in combination with comments on previous versions of the project documentation, including for the same areas and activity (establishing eucalyptus plantations on can. 11,000 ha newly acquired pasture land by Plantar SA) continue to call into question the chosen baseline and additionality arguments advanced by Plantar SA

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*Plantation Forests of PLANTAR S.A. (attached).*

and the World Bank Prototype carbon Fund. We strongly recommend that the project not be validated, and not be approved by the CDM Executive Board for registration.

We would further like to note that the existence of the project documentation in English only and the announcement of the extended comment period only on a website which does not provide information in the language spoken in the project area seriously limits the possibility for actors affected directly by the operations of the project proponent to submit comments on the proposed project activity.

We would further like to express our surprise that this extended commenting period commenced during the suspension of the consultancy which validated the project. In the absence of a functioning alert – information system, [name of organisation] became aware of the extension of the commenting period only three weeks into the time given for commenting. If the system is intended to solicit submissions, the notification system certainly has a lot of room for improvement!

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<sup>i</sup> Email from Ken Newcombe, Director PCF, to CDM Watch, 4.March 2002





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28 May 2010

Comments on the Plantar project submitted by FERN

## Introduction

The following are FERN's comments on the Plantar project '**Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil Version: 03a**' seeking registration and validation as a CDM project. The comments below substantiate that the project does not provide convincing evidence that it is additional and not common practice. FERN thus strongly recommends that this project ***not*** be registered or validated. The reasons are numerous and include:

- (a) In relation to the technical requirements for CDM registration:
  - 1. The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003;
  - 2. The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable;
  - 3. The project documentation fails to provide credible evidence that the project activity is not common practice.
- (b) In relation to significant social and environmental impacts:
  - 4. A lack of substantive responses to comments outlining the significant negative socioeconomic and environmental impacts submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology.

## A note on the history of the Plantar project's attempts at CDM registration

The original Plantar offset project proposal which was included into the World Bank Prototype Carbon Fund was designed prior to the decision made at COP6.5 to exclude 'Avoided Deforestation' as an eligible project category for the Clean Development Mechanism (CDM).

*FERN works to achieve greater environmental and social justice, focusing on forests and forest peoples' rights in the policies and practices of the European Union.*

However, the project's 'additionality' argument had been developed to fit with these anticipated CDM rules. In 2002, the World Bank admitted in correspondence with CDM Watch that it had changed the project design *"radically to eliminate the risk that the project would be seen that way [ie as avoided deforestation] by the Parties/EB [Executive Board of the CDM]"*<sup>1</sup>. Yet even the current Project Design Document continues to allude to the risk of 'illegal' harvesting of timber to supply charcoal for pig iron production should extra funding to maintain charcoal plantations not be forthcoming.

The second version of the Project Design Document related to tree plantations for which Plantar was seeking CDM registration, claimed that in the absence of revenue from CDM registration and sale of CDM credits, the company would have had to switch from using charcoal to using mineral coal coke as a reducing agent in its pig iron production. At the time, FERN submitted extensive comments on the proposed methodology for this project. The arguments and data submitted then remain as valid today as they were then. Traces of this argumentation remain in the current Project Design Document which continues to claim that the company would have begun to use mineral coal coke in its pig iron factories without CDM funding, however no credible evidence is provided that would explain why the 'industry trend' would apply to Plantar given the company's significant private land holdings on which it has been growing eucalyptus plantations for charcoal for decades. In addition, the company is one of the largest in Brazil involved in management of plantations. In this context, merely citing some references to 'industry' or 'sectoral' trends without any evidence that these trend conditions would also apply to the individual case of Plantar is not sufficient to make a credible case about fuel switching to more carbon-intensive reducing agent as the baseline.

The current Project Design Document thus represents the third attempt of the project proponents to achieve CDM registration. In the course, three different additionality arguments and baselines have been used in an attempt to substantiate the project's claims that the eucalyptus plantations, which were established in 2000 according to statements in the current documentation, would not have been established had it not been for the expectation of CDM revenue.

According to the project documents, the expectation of CDM offset revenue also was an important factor in the negotiation and signing of a financial loan structure with the Rabo Bank, with the World Bank Prototype Carbon Fund advance purchase agreement (ERPA) supposedly also playing an important role: *"The CDM has already helped reversing a substantial part of the above-mentioned barriers. [...] the project entity has been able to seek revenues by selling part of the project's emission reductions and removals (a total of US\$5.3 million) to the World Bank's Prototype Carbon Fund."* And further: *"This transaction has only been possible and the project only became bankable due to its eligibility to the CDM and carbon credits. [...]."*

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<sup>1</sup> Email from Ken Newcombe, Director PCF at the time, to CDM Watch, 4 March 2002.



It must be hoped that the existence of these agreements, and the possibility of delays in repayment of a loan approved on the expectation of a CDM registration and offset credit generation will not have been of consideration in the decision of TUEV SUED to recommend the project for validation, or will have any undue influence on any CDM Executive Board decisions related to this project!

Our specific comments follow:

## 1. Questionable Additionality Arguments

The current Project Design Document (PDD) appears to advance two different baseline and additionality arguments. One appears to be a remnant of the project's previous baseline and additionality argument that in the absence of CDM funding, the company would have had to switch to using mineral coal in its pig iron production. In the previous PDD, the Plantar Baseline stated:

*"...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:*

- *An accelerated reduction in the plantation forestry base in the state of Minas Gerais, within the next decade, caused by harvesting of existing forests (now in the last cycle of their rotations) and lack of investment into replanting"*
- *The reduction of the forest base leads to scarcity of charcoal as a raw material for the small independent pig iron sector. This leads to the gradual decline and eventual death of this market segment". [Old Baseline Study, p 25].*

The current PDD continues to advance this argument:

*"Whereas, the vast majority of the Brazilian iron production is based on coal coke (see **Figure 23**) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal."*

When viewed in the context of Plantar's total land holdings this claim of the company switching to coal coke is not credible. Neither project documentation or public company communication in country provide any evidence that Plantar would have switched to coal coke. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for *only 11,711 hectares* of new plantations, an amount equal to about 10% of its total holdings, it will not invest in replanting. It is furthermore claiming that this supposed inability to establish 11,000 ha of plantation will lead to "scarcity of charcoal" and the death of the charcoal-based pig iron industry in Minas Gerais.

At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the 'sustainable supply' with charcoal for the company's entire pig iron production:

*"Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008".*

No explanation is provided for these seemingly contradictory statements and assumptions.

Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company's overall profitability and its decision about future investments. It is also hard to see how the loss of only a small fraction of its total plantations could lead a "scarcity" in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig-iron industry in Minas Gerais.

Furthermore, the following news article from 2004 suggests that contrary to statements in the project documentation, plantations for charcoal productions were expanding significantly in Minas Gerais, and charcoal was available at a price well below the price of mineral coal. Neither the project proponents nor the DOE appear to have taken note of these facts or seen any need to acknowledge these trends in project documentation:

#### **"FLORESTAS PARA PRODUÇÃO DE CARVÃO VEGETAL**

Minas Gerais está vivendo intensa retomada no plantio de florestas para a produção de carvão vegetal, motivada pela falta de madeira e, sobretudo pela saída da China do mercado internacional de ferro-gusa. Em decorrência, elevaram-se as exportações brasileiras do produto. A produção mineira de ferro-gusa em 2003 foi de 5 milhões de toneladas; está em crescimento e, do total, a metade segue ao exterior. Mais da metade do aço que sai das siderúrgicas mineiras é produzida a partir do carvão mineral, que poderia ser substituído, com grande vantagem técnica pelo carvão vegetal, embora uma mudança em alto forno seja operação demorada. Em 1996, seduzidas pela paridade entre o real e o dólar várias siderúrgicas converteram seus fornos para carvão mineral e, agora, com o carvão mineral cotado a valores superiores ao vegetal (US\$ 450 t/carvão mineral e US\$ 140 t/ carvão vegetal), o que era vantagem tornou-se um problema e as empresas examinam até a possibilidade de importar madeiras. Segundo a Associação Mineira de Silvicultura deverão ser plantados 120 mil hectares de eucalipto no estado em 2004, quantidade 50% superior ao plantio de 2003. Ainda assim poderá faltar madeira nos próximos dois anos. Fonte: Gazeta Mercantil. " SBS - SOCIEDADE BRASILEIRA DE SILVICULTURA 31 August 2004

## **2. Claims of sustainability lack substantive evidence**

The project claims that *"the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents"* will be a 'first of its kind' for Plantar. No further substantive evidence is given as to what other "GHG intensive reducing agents" the company has used in the past, not what makes the establishment of the 11,700 ha of eucalyptus plantations 'a first of its kind' and substantially different from the company's core

business, the management of tree plantations. No evidence is given that the company used coal coke in significant amounts nor does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the 'first of its kind' contribution of this project lies or what proportion of the reducing agent was previously a substance other than charcoal produced from existing eucalyptus plantations.

The project documents further claim that *"As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal."* Does the project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn a company the size of Plantar S.A. into a *"the first of its kind to have 100% of its iron production based on renewable charcoal."*?

What evidence has the DOE assessed to establish the validity of this claim? The validation report does not provide any indication that these claims have been scrutinized.

What proportion of the charcoal used in Plantar's iron production will come from these 11,700 ha? Where does the remainder of the charcoal used come from?

Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas [which supposedly contribute to the 100% renewable charcoal needed in Plantar's pig iron production] not covered by the proposed CDM project would be 'renewable', let alone sustainable.

This claim is further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are 'exhausted' (and which were included in a previous project proposal for CDM registration). No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on 'exhausted lands'.

The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years on any of the areas that will have reached the end of their 3x 7-year rotation cycle, plantations will be replanted. If they are not, how would the carbon storage the company will be obliged to ensure be guaranteed? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation

cycle or to establish plantations on newly acquired lands? Does the company interpret the terms 'renewable' and 'sustainable' as 'renewable over the regular 21 year-rotation period of eucalyptus plantations'?

#### 4. Social and Environmental Impacts

Supposedly as evidence of having taken into consideration comments made about the significant negative social and environmental impacts of Plantar's eucalyptus operations, the current PDD states that

*"Although the eucalyptus plantations for the production of wood for industrial and domestic use have contributed significantly in terms of socioeconomic development, wood productivity and environmental management quality of the plantations, some adverse public reactions to this activity are observed. Criticisms are based on ecological and social economical argumentations, some of them supported by technical parameters and others by myths and prejudice."*

The SGS certification report for the Forest Stewardship Council (FSC), a critical consultancy report highlighting the incompleteness of the SGS assessment of environmental and social impacts<sup>2</sup>, as well as a large number of well-referenced documents by civil society organizations and academics give testimony to the well founded "ecological and social economical argumentations" presented to substantiate the reality of significant environmental and social impacts of Plantar's eucalyptus plantations in the region. The video letter exchange 'The Carbon Connection' visually documents some of these impacts in the project area. We will refrain from repeating the arguments and evidence already provided on previous occasions to the CDM Executive Board on the matter and refer to the following references which detail the plethora of significant negative socioeconomic and environmental impacts originating from the Plantar eucalyptus plantations.

##### **Some references substantiating the significant social and environmental impacts**

Calazans, M. et al. (2006) "Brazil: Handouts for Repression as Usual" in Lohmann, L., ed. *Carbon Trading*, Uppsala.

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Civil Society letter (2010) '*Plantar S.A. CDM project: Global warming continues unabated*'.

Civil Society letter to the CDM Executive Board signed by over 50 organisations.

## Conclusion

The comments above, in combination with comments on previous versions of the project documentation, including the same area and activity (establishing eucalyptus plantations on ca. 11,000 ha newly acquired pasture land by Plantar SA) continue to call into question the chosen baseline and additionality arguments advanced by Plantar SA and the World Bank Prototype Carbon Fund.

**FERN strongly recommend that the project not be validated, and not be approved by the CDM Executive Board for CDM registration.**

We would further like to note that the existence of the project documentation in English only and the announcement of the extended comment period only on a website which does not provide information in the language spoken in the project area seriously limits the possibility for actors affected directly by the operations of the project proponent to submit comments on the proposed project activity.

We would further like to express our surprise that this extended commenting period commenced during the suspension of the consultancy which validated the project. In the absence of a functioning alert – information system, FERN became aware of the extension of the commenting period only several weeks into the time given for commenting. If the system is intended to solicit submissions, the notification system certainly has a lot of room for improvement!

Regards,



Jutta Kill

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**Comments on the Plantar project by  
ARA (Working Group on Rainforests and Biodiversity,  
Germany)**



The following are ARA's comments on the Plantar project '**Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil Version: 03a**' seeking registration as a CDM project. ARA does not believe that this project should be registered or validated. The reasons are numerous and include

- (a) In relation to the technical requirements for CDM registration:
  - 1. The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003;
  - 2. The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable.
- (b) In relation to significant social and environmental impacts:
  - 4. A lack of substantive responses to comments submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology.

**A note on the history of the Plantar project's attempts at CDM registration**

The original Plantar offset project proposal which was included into the World Bank Prototype Carbon Fund was designed prior to the decision made at COP6.5 to exclude 'Avoided Deforestation' as an eligible project category for the Clean Development Mechanism (CDM).

The project's 'additionality' argument had been developed to fit with these anticipated CDM rules. In 2002, the World Bank admitted in correspondence with CDM Watch that it had



changed the project design "radically to eliminate the risk that the project would be seen that way [i.e. as avoided deforestation] by the Parties/EB [Executive Board of the CDM]" <sup>1</sup>. Yet even the current Project Design Document continues to allude to the risk of 'illegal' harvesting of timber to supply charcoal for pig iron production should extra funding to maintain charcoal plantations not be forthcoming.

The second version of the Project Design Document related to tree plantations for which Plantar was seeking CDM registration, claimed that in the absence of revenue from CDM registration and sale of CDM credits, the company would have had to switch from using charcoal to using coke coal as a reducing agent in its pig iron production. At the time, FERN submitted extensive comments on the proposed methodology for this project. The arguments and data submitted then remain as valid today as they were then. Traces of this argumentation further remain in the current project design document which continues to claim that the company would have begun to use mineral coal in its pig iron factories.

The current Project Design Document thus represents the third attempt of the project proponents to achieve CDM registration. In the course, three different additionality arguments and baselines have been used in an attempt to substantiate the project's claims that the plantations, which were established in 2000 according to statements in the current documentation would not have been established had it not been for the expectation of CDM revenue. According to the project documents, the expectation of CDM offset revenue also was an important factor in the negotiation and signing of a financial loan structure with the Rabo Bank, with the World Bank Prototype Carbon Fund advance purchase agreement (ERPA) supposedly also playing an important role: *"The CDM has already helped reversing a substantial part of the above-mentioned barriers. [...] the project entity has been able to seek revenues by selling part of the project's emission reductions and removals (a total of US\$5.3 million) to the World Bank's Prototype Carbon Fund."* And further: *"This transaction has only been possible and the project only became bankable due to its eligibility to the CDM and carbon credits. [...]"*

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<sup>1</sup> Email from Ken Newcombe, Director PCF, to CDM Watch, 4.March 2002

It must be hoped that the existence of these agreements, and the possibility of delays in repayment of a loan approved on the expectation of a CDM registration and offset credit generation will not have been of consideration in the decision of TUEV SÜED to recommend the project for validation!

Our specific comments follow:

## 1. Questionable Additionality arguments

The current Project Design Document (PDD) appears to advance two different baseline and additionality arguments. One appears to be a remnant of the project's previous additionality argument that in the absence of CDM funding, the company would have had to switch to using mineral coal in its pig iron production. In the previous PDD, the Plantar Baseline stated:

*"...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:*

- An accelerated reduction in the plantation forestry base in the state of Minas Gerais, within the next decade, caused by harvesting of existing forests (now in the last cycle of their rotations) and lack of investment into replanting"*
- The reduction of the forest base leads to scarcity of charcoal as a raw material for the small independent pig iron sector. This leads to the gradual decline and eventual death of this market segment". [Baseline Study, p 25].*

The current PDD continues to advance this argument:

*"Whereas, the vast majority of the Brazilian iron production is based on coal coke (see **Figure 23**) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal."*

When viewed in the context of Plantar's total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares



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of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for only 11,711 hectares of new plantations, an amount equal to about 3% of its total holdings, it will not invest in replanting. It is furthermore claiming that this will lead to "scarcity of charcoal" and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the 'sustainable supply' with charcoal for the company's entire pig iron production: "Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008". No explanation is provided for these seemingly contradictory statements and assumptions.

4  
Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company's overall profitability and its decision about future investments. It is also hard to see how the loss of only 3.3% of its total plantations could lead a "scarcity" in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig iron industry.

## 2. Claims of sustainability lack substantive evidence

6  
The project claims that "the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents" will be a 'first of its kind' for Plantar. No further substantive evidence is given as to what other "GHG intensive reducing agents" the company has used in the past. No evidence is given that the company used coal coke in significant amounts nor does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the 'first of its kind' contribution of this project lies or what proportion of the reducing agent was a substance other than charcoal produced from existing eucalyptus plantations.

The project documents further claim that "As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal." Does the project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn the company into a "the first of its kind to have 100% of its iron production based on renewable charcoal."? Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas not covered by the proposed CDM project would be 'renewable', let alone sustainable. This claim would be further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are 'exhausted'. No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on 'exhausted lands'.

The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years any of the areas that will have reached the end of their 3x 7-year rotation cycle plantations will be replaced on these areas. If they are not, how would the carbon storage the company will be obliged to ensure be ensured? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation cycle or to establish plantations on newly acquired lands?

#### **4. Social and Environmental Impacts**

Supposedly as evidence of having taken into consideration comments made about the significant social and environmental impacts of Plantar's eucalyptus operations, the current PDD states that "Although the eucalyptus plantations for the production of wood for industrial and domestic use have

contributed significantly in terms of socioeconomic development, wood productivity and environmental management quality of the plantations, some adverse public reactions to this activity are observed. Criticisms are based on ecological and social economical argumentations, some of them supported by technical parameters and others by myths and prejudice."

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## **Conclusion**

The comments above, in combination with comments on previous versions of the project documentation, including for the same areas and activity (establishing eucalyptus plantations on ca. 11,000 ha newly acquired pasture land by Plantar SA) continue to call into question the chosen baseline and additionality arguments advanced by Plantar SA and the World Bank Prototype carbon Fund. We strongly recommend that the project not be validated, and not be approved by the CDM Executive Board for registration.

We would further like to note that the existence of the project documentation in English only and the announcement of the extended comment period only on a website which does not provide information in the language spoken in the project area seriously limits the possibility for actors affected directly by the operations of the project proponent to submit comments on the proposed project activity.

We would further like to express our surprise that this extended commenting period commenced during the suspension of the consultancy which validated the project. In the absence of a functioning alert information system, ARA became aware of the extension of the commenting period only three weeks into the time given for commenting. If the system is intended to solicit submissions, the notification system certainly has a lot of room for improvement!

31 May 2010

***Please accept our comments on the project “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil Version: 03a” of Plantar SA, Brasil***

Comments submitted from Carbon Trade Watch, International

## **Introduction**

We **adamantly** appose any further funding to be allowed for the continuation of Plantar SA work within the CDM and continue to appose other CDM funding that has been granted in the past. The only difference that has occurred in the project stated above which, was already rejected, is it now promises ‘dedicated plantations’ grown for the production of charcoal that is referred to, euphemistically, as ‘renewable biomass’. Plantar SA claims that the original rejection was not due to flaws in the project itself, but was rejected because CDM regulations on land use, landuse change and forestry were not finalised at the time it was originally submitted. On this basis, it attempts to backdate the claim for carbon credits to 2000 – although the fact that the activities described in the project have already been underway for nine years is *prima facie* evidence that there is nothing ‘additional’ about it.

Local communities are affected gravely by the projects of Plantar SA. The repeated rejection of this project should have led to it being scrapped, as some 143 local groups and individuals argued in a letter to the CDM Executive Board of June 2004: ‘[T]he claim that without carbon credits Plantar...would have switched to coal as an energy source is absurd... Yet now [Plantar] is using this threat to claim carbon credits for continuing to do what they have been doing for decades – plant unsustainable eucalyptus plantations for charcoal... It is comparable to loggers demanding money, otherwise they will cut down trees... [The CDM] should not be allowed to be used by the tree plantation industry to help finance its unsustainable practices.’

However speaking specifically to the current project in question:

- (a) In relation to the technical requirements for CDM registration:
  1. The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003;
  2. The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable.
- (b) In relation to significant social and environmental impacts:
  4. A lack of substantive responses to comments submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology.

## **1. Questionable Additionality arguments**

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When viewed in the context of Plantar's total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for only 11,711 hectares of new plantations, an amount equal to about 3% of its total holdings, it will not invest in replanting. It is furthermore claiming that this will lead to "scarcity of charcoal" and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the 'sustainable supply' with charcoal for the company's entire pig iron production: *"Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008"*. No explanation is provided for these seemingly contradictory statements and assumptions.

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**Conclusion**

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31 May 2010

***Please accept our comments on the project “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil Version: 03a” of Plantar SA, Brasil***

Comments submitted from Carbon Trade Watch, International

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Local communities are affected gravely by the projects of Plantar SA. The repeated rejection of this project should have led to it being scrapped, as some 143 local groups and individuals argued in a letter to the CDM Executive Board of June 2004: ‘[T]he claim that without carbon credits Plantar...would have switched to coal as an energy source is absurd... Yet now [Plantar] is using this threat to claim carbon credits for continuing to do what they have been doing for decades – plant unsustainable eucalyptus plantations for charcoal... It is comparable to loggers demanding money, otherwise they will cut down trees... [The CDM] should not be allowed to be used by the tree plantation industry to help finance its unsustainable practices.’

However speaking specifically to the current project in question:

- (a) In relation to the technical requirements for CDM registration:
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*"...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:*

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The current PDD continues to advance this argument:

*"Whereas, the vast majority of the Brazilian iron production is based on coal coke (see **Figure 23**) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal."*

When viewed in the context of Plantar's total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for only 11,711 hectares of new plantations, an amount equal to about 3% of its total holdings, it will not invest in replanting. It is furthermore claiming that this will lead to "scarcity of charcoal" and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the 'sustainable supply' with charcoal for the company's entire pig iron production: "Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008". No explanation is provided for these seemingly contradictory statements and assumptions.

Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company's overall profitability and its decision about future investments. It is also hard to see how the loss of only 3.3% of its total plantations could lead to a "scarcity" in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig iron industry.

## 2. Claims of sustainability lack substantive evidence

The project claims that “the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents” will be a ‘first of its kind’ for Plantar. No further substantive evidence is given as to what other “GHG intensive reducing agents” the company has used in the past. No evidence is given that the company used coal coke in significant amounts nor does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the ‘first of its kind’ contribution of this project lies or what proportion of the reducing agent was a substance other than charcoal produced from existing eucalyptus plantations.

The project documents further claim that “*As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal.*” Does the project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn the company into a “*the first of its kind to have 100% of its iron production based on renewable charcoal.*”? Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas not covered by the proposed CDM project would be ‘renewable’, let alone sustainable. This claim would be further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are ‘exhausted’. No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on ‘exhausted lands’.

The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years any of the areas that will have reached the end of their 3x 7-year rotation cycle plantations will be replaced on these areas. If they are not, how would the carbon storage the company will be obliged to ensure be ensured? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation cycle or to establish plantations on newly acquired lands?

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Comments submitted from Carbon Trade Watch International and Nou Sud / Marc Masmiquel

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Thanks,

Marc Masmiquel Mendiara  
President of Nou Sud.- Cooperación Internacional  
marc.masmiquel@gmail.com

## Comentários sobre o projeto da Plantar da FASE

### Introdução

**Neste documento, seguem os comentários de FASE sobre o projeto da Plantar, chamado “Reflorestamento como fonte renovável de fornecimento de madeira para fins industriais no Brasil, Versão: 03a”. Este projeto está buscando o registro como projeto de MDL. A FASE não acredita que este projeto deveria ser registrado ou validado. Os motivos são muitos e incluem:**

- (a) Em relação às exigências técnicas para o registro como projeto de MDL:
  - O argumento de ser um projeto adicional continua sendo tão questionável quanto a primeira vez que o projeto foi apresentado para validação numa versão diferente, já vários anos atrás.
  - O projeto afirma produzir fontes sustentáveis de biomassa sem providenciar qualquer evidência substancial de que essas fontes serão de fato sustentadas ou sustentáveis.
- (b) Em relação aos graves impactos sociais e ambientais:
  - uma falta de respostas satisfatórias a comentários submetidos em processos de consulta anteriores quando o projeto tentou o registro como projeto de MDL sob um título diferente e com uma metodologia diferente.

### **Um breve histórico das tentativas do projeto da Plantar em conseguir o registro como projeto de MDL**

O primeiro projeto de mercado de carbono da Plantar, que fazia parte do *Prototype Carbon Fund* (PCF) do Banco Mundial, foi elaborado antes da decisão tomada pela COP6.5 para excluir o ‘Desmatamento Evitado’ como uma categoria de projeto elegível para o Mecanismo de Desenvolvimento Limpo (MDL).

O argumento do projeto de ser ‘adicional’ tinha sido elaborado para que o mesmo pudesse se encaixar nessas regras antecipadas do MDL. Em 2002, o Banco Mundial admitiu numa correspondência para o *CDMWatch* que tinha mudado o desenho do projeto “*de forma radical para eliminar o risco de que o projeto fosse visto dessa forma* [ou seja, como desmatamento evitado] *pelas Partes/CE* [Conselho Executivo do MDL]”<sup>1</sup>. No entanto, até mesmo o atual Documento do Desenho do Projeto continua fazendo referência ao risco de colhendo ‘ilegamente’ madeira para fornecer carvão para a produção de ferro gusa se não houver logo financiamento extra para manter as plantações para carvão vegetal.

A segunda versão do Documento de Desenho do Projeto no que tange plantações de árvores para a qual a Plantar estava buscando o registro do MDL, afirmava que na ausência do retorno do registro do MDL e venda de créditos do MDL, a empresa teria que ter deixado de usar carvão vegetal e começado a usar carvão mineral como ‘agente de redução’ de emissões na sua produção de ferro gusa. Na época, FERN submeteu comentários extensos sobre a metodologia proposta para este projeto. Os argumentos e os dados apresentados na ocasião mantêm sua validade no momento atual. Elementos desta argumentação são mantidos no atual documento de desenho do projeto que continua afirmando que a empresa teria começado a usar carvão mineral nas suas usinas de ferro gusa. Portanto, o presente Documento de Desenho do Projeto representa a terceira tentativa do proponente do projeto a conseguir o registro do MDL. No decorrer do tempo, três argumentos diferentes para provar que o projeto seria adicional, além de três cenários de referência, têm sido usados para tentar basear a

defesa do projeto de que as plantações, que foram implantadas em 2000, conforme afirmações da documentação atual, não teriam sido implantadas a não ser na expectativa do rendimento do MDL. De acordo com os documentos do projeto, a expectativa de retorno da venda de créditos de MDL foi também um fator importante na negociação e assinatura de uma estrutura financeira de empréstimo com o *Rabo Bank*, contando com o acordo com o PCF do Banco Mundial de compra antecipada (ERPA): “O MDL já tem ajudado em superar uma parte substancial das barreiras acima mencionadas. [...] A entidade responsável pelo projeto tem conseguido recursos vendendo parte de suas reduções e remoções de emissões (um total de US\$ 5,3 milhões) para o Prototype Carbon Fund do Banco Mundial” E continua: “Esta transação só tem sido possível e o projeto conseguiu apenas se tornar aceitável através da sua elegibilidade para o MDL e créditos de carbono. [...]”

Esperamos que a existência destes acordos e a possibilidade de atrasos na devolução do empréstimo aprovado sobre a expectativa de um registro de MDL e geração de créditos de carbono não tem sido considerado na decisão da TUEV SUEDE de recomendar o projeto para validação!

Nosso comentário específico é o seguinte:

## 1. Argumentos de adicionalidade questionáveis

O atual Documento de Desenho do Projeto (PDD) parece avançar em dois diferentes argumentos em relação ao cenário de referência e adicionalidade. Um parece com o argumento de adicionalidade do projeto anterior que na ausência do financiamento de MDL, a empresa teria que ter mudado para o uso de carvão mineral na sua produção de ferro gusa. No PDD anterior, o Cenário de referência da Plantar afirmava:

“...o cenário de referência identificada para este projeto consiste nas seguintes tendências, que aconteceriam na ausência do financiamento de carbono e/ou outros incentivos financeiros:

- Uma redução acelerada na base florestal de plantações no estado de Minas Gerais na próxima década, causada pela colheita das florestas existentes (agora no ultimo ciclo de suas rotações) e pela falta de investimentos para o replantio”.
- A redução da base florestal leva à escassez de carvão como uma matéria prima para o pequeno setor independente de ferro gusa. Isso leva a um declínio gradual e eventual desaparecimento deste segmento de mercado” [Estudo do cenário de Referência, p. 25]

O atual PDD continua avançando neste argumento:

“Enquanto a grande maioria da produção brasileira de ferro se baseia no carvão mineral (vê figura 23), a menor parte muitas vezes dependia de práticas ilegais para sustentar sua produção no passado, por exemplo desmatamento ilegal e falsificação de licenças para a produção e o transporte de carvão”

Se olharmos para o contexto de todas as propriedades da Plantar, não podemos dar crédito a esta afirmação da empresa de que vai passar a usar carvão mineral. A empresa opera mais de 690 mil hectares de plantações para si mesma e para outras empresas, das quais ela possui integralmente pelo menos 103 mil hectares. No entanto, ela agora afirma que se ela não receber os créditos de carbono para apenas 11.711 hectares de novas plantações, uma

<sup>1</sup> Além disso, em 2007, o Grupo Lorentzen, ex-dono da Aracruz Celulose/Fibria, fez uma 'joint venture' com a Plantar. O resultado foi uma nova empresa chamada Aflopar, que possui 60 mil hectares no estado de Minas Gerais. Objetivo é plantar eucalipto para carvão vegetal para ser vendido a usinas de ferro gusa na região. (Ferreira, Rodrigo, “Bioenergia e o mercado de carbono: oportunidades para a cadeia produtiva da siderurgia”, apresentação powerpoint durante “Seminário Bases Bioenergéticas para uma

quantidade igual a mais ou menos 3% da sua área total, ela não investirá no replantio. Além disso, ela alega que isso levará à “escassez de carvão” e à morte da indústria de ferro gusa baseada no carvão vegetal em Minas Gerais. Ao mesmo tempo, a empresa afirma que com a renda de MDL adicional para esta pequena porção de suas áreas com plantações, ela conseguirá assegurar o ‘abastecimento sustentável’ com carvão vegetal para sua produção inteira de ferro gusa: *“Por causa das atividades de projeto piloto, a ente do projeto se tornará a primeira na sua categoria para ter 100% da sua produção de ferro baseado em carvão vegetal renovável até 2007/2008”*. Nenhuma explicação é apresentada para fundamentar essas afirmações e suposições aparentemente contraditórias.

Será verdade que Plantar está alegando mesmo que um impedimento para conseguir créditos de carbono para plantações que representam apenas uma fração das suas áreas totais causará um efeito no sentido que ela não investirá mais em novas plantações? É difícil entender como uma parte tão pequena das suas operações poderia ser tão importante para a rentabilidade geral da empresa e sua decisão sobre investimentos futuros. Também é difícil acreditar como uma perda de apenas 3.3% da sua área total de plantações poderia levar a uma “escassez” no fornecimento do carvão vegetal de tal magnitude capaz de acabar com a indústria inteira de ferro gusa baseada em carvão vegetal.

## 2. Alegações de sustentabilidade carecem de evidências substantivas

O projeto alega que com “a implantação de plantações para abastecer toda sua produção de ferro com carvão vegetal de bases florestais renováveis em vez de agentes de redução (de emissões) intensivas em gases de efeito estufa (GHG)” a empresa será a “primeira na sua categoria”. Nenhuma evidência substantiva a mais é apresentada sobre quais outros “agentes de redução [de emissões] intensivos em GHG” a empresa tem usado no passado. Nenhuma evidência é dada de que a empresa usou carvão mineral em quantidades significativas, e tampouco o PDD sugere que a empresa usou madeira nativa cortada ilegalmente para a produção de carvão vegetal. Desta forma, o PDD falha em afirmar claramente o que quer dizer exatamente com sendo a “primeira na sua categoria” ou qual proporção do agente de redução foi a substância não sendo carvão vegetal de suas plantações de eucalipto existentes.

Os documentos do projeto alegam ainda que *“Uma vez que a colheita das plantações implantadas em 2000 começa em 2007/2008, o ente do projeto será o primeiro na sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável.”* Será que o proponente do projeto realmente sugere que o carvão vegetal produzido destes 11.711 hectares de novas plantações implantadas é suficiente para transformar a empresa na “primeira da sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável”? Além disso, os documentos do projeto falham em explicar porque as plantações nestas cerca de 11.700 hectares seriam renováveis, ou qual seria a evidência para sugerir que a proporção de carvão vegetal usada de outras áreas de plantações não cobertas pelo projeto de MDL proposto seriam ‘renováveis’, sem falar em sustentáveis. Esta alegação poderia ser ainda mais questionada uma vez que os documentos do projeto não dão nenhuma indicação como no final do ciclo de rotação de 21 anos os mesmos problemas com acesso a financiamento seriam evitados e que levou a empresa a alegar que teve que implantar estas plantações em novas áreas ou replantando em áreas que a empresa já possui mas que chegaram ao fim do seu ciclo de rotação e que a empresa afirma que não possam ser replantadas porque estão ‘exaustas’. Nenhum argumento substantivo é apresentado como a empresa pode, ao mesmo tempo, alegar que está capaz de produzir 100% de seu carvão



vegetal de recursos renováveis e, em outro lugar, alegar que precisaria de financiamento adicional para substituir plantações em 'terras exaustas'.

O projeto reivindicará créditos de carbono para um período de 30 anos. Os documentos do projeto falham em indicar se nos últimos dois anos alguma das áreas que tenham chegado ao fim do seu ciclo de 3 x 7 anos de rotação serão substituídas nessas áreas. Senão, como será assegurada a reserva de carbono que a empresa é obrigada a assegurar? Qual é a evidência que a empresa pode oferecer de que é capaz de garantir os meios financeiros para replantar estas áreas quando a falta de acesso a financiamento foi o argumento dado que a impossibilitaria de substituir as áreas existentes no final do seu ciclo de rotação ou para implantar plantações em novas áreas adquiridas?

#### 4. Impactos sociais e ambientais

Supostamente como evidência de ter levado em consideração comentários feitos sobre os graves impactos sociais e ambientais das operações com eucalipto da Plantar, o atual PDD afirma que *"Apesar que plantações de eucalipto para a produção de madeira para uso industrial e doméstico ter contribuído de forma significativa em termos de desenvolvimento socioeconômico, a produtividade de madeira e a qualidade de manejo ambiental, algumas reações públicas adversas a esta atividade foram observadas. Críticas são baseadas em argumentações ecológicas e econômicas sociais, algumas delas apoiadas em parâmetros técnicos e outras em mitos e preconceitos."*

Em relação ao relatório de certificação da SGS para o FSC, um relatório de consultoria crítico destacou as lacunas da avaliação de impactos sociais ambientais pela SGS<sup>2</sup>, bem como o grande número de documentos bem fundamentados de organizações da sociedade civil, bem como de acadêmicos, que dão testemunho das "argumentações ecológicas e sociais econômicas" apresentadas para explicitar a realidade de impactos ambientais e sociais significativos das plantações de eucalipto da Plantar na região. O intercâmbio de 'cartas' de vídeo chamado "A Conexão de Carbono" documenta visualmente alguns dos impactos na área do projeto. Não vamos aqui repetir os argumentos e evidências já apresentadas em outras ocasiões ao Conselho Executivo do MDL sobre a questão e nos referimos aos seguintes documentos escritos e visual que detalham o conjunto de impactos socioeconômicos e ambientais negativos causados pelas plantações de eucalipto da Plantar.

#### ***Algumas referências para substanciar os impactos sociais e ambientais significativas***

Calazans, M. et al. (2006) "Brazil: Handouts for Repression as Usual" in Lohmann, L., ed. *Carbon Trading*, Uppsala.

Carrere, R., Lang, C., Soares, M. et al. (2003) *Certifying the Uncertifiable: FSC Certification of Tree Plantations in Thailand and Brazil*, Montevideo.

Lohmann, L. (2005) "Marketing and Making Carbon Dumps: Commodification, calculation and counterfactuals in climate change mitigation", *Science as Culture* 14 (3): 203-35.

----- (forthcoming) 'Toward a Different Debate in Environmental Accounting: The cases of carbon and cost-benefit', *Accounting, Organizations and Society* doi:10.1016/j.aos.2008.03.002.

Valentim, R., Calazans, M. et al. (2003), *Where the Trees are a Desert: Stories from the Ground*, Amsterdam.

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<sup>2</sup> Hammond, Herb (2004): *Initial Review of Forest Stewardship Council Certification of*

Gilbertson, T. et al: *Carbon Connection*. Community video letter exchange between communities affected by the Plantar operations and communities in Grangemouth, Scotland. Available at [www.carbontradewatch.org](http://www.carbontradewatch.org)

Civil society letter (2002) Letter to Investors of the World Bank Prototype Carbon Fund March 2003 (attached).

Hammond, Herb (2004): *Initial Review of Forest Stewardship Council Certification of Plantation Forests of PLANTAR S.A.* (attached).

Civil Society letter (2010) Plantar S.A. CDM project: Global warming continues unabated. Civil Society letter signed by [number] organisations

## **Conclusão**

Os comentários acima citados, junto com os comentários sobre versões anteriores da documentação do projeto, inclusive para as mesmas áreas e atividade (implantando plantações de eucalipto em cerca de 11.000 hectares de pastagem recentemente adquirida pela Plantar S/A) continua levantando duvidas sobre os argumentos escolhidos em relação ao cenário de referencia e à adicionalidade, defendidos pela Plantar S/A e o PCF do Banco Mundial. Recomendamos fortemente que o projeto não seja validado, e que não seja aprovado pelo Conselho Executivo do MDL para registro.

Além disso, gostaríamos de observar que existência da documentação do projeto apenas em inglês e o anúncio do período de comentários ampliado num site na internet que não fornece informação na língua falada na área do projeto (português) limita seriamente a possibilidade para os atores afetados diretamente pelas operações do proponente do projeto submeter comentários sobre a atividade do projeto proposto.

Além disso, gostaríamos de expressar nossa surpresa com este período de comentários ampliado, iniciado durante a suspensão da empresa de consultoria que validou o projeto. Na ausência de um sistema de alerta-informação funcionando, a **FASE** tomou conhecimento da ampliação do prazo para fazer comentários apenas três semanas depois do início deste período. Se o sistema tem como objetivo solicitar contribuições, o sistema de notificação certamente tem muito a melhorar!

## **Assinado**

**FASE**



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<sup>1</sup> Email from Ken Newcombe, Director PCF, to CDM Watch, 4.March 2002

## Comentários sobre o projeto da Plantar da FASE NACIONAL

### Introdução

**Neste documento, seguem os comentários de FASE NACIONAL sobre o projeto da Plantar, chamado “Reflorestamento como fonte renovável de fornecimento de madeira para fins industriais no Brasil, Versão: 03a”. Este projeto está buscando o registro como projeto de MDL. A FASE NACIONAL não acredita que este projeto deveria ser registrado ou validado. Os motivos são muitos e incluem:**

- (a) Em relação às exigências técnicas para o registro como projeto de MDL:
  - O argumento de ser um projeto adicional continua sendo tão questionável quanto a primeira vez que o projeto foi apresentado para validação numa versão diferente, já vários anos atrás.
  - O projeto afirma produzir fontes sustentáveis de biomassa sem providenciar qualquer evidência substancial de que essas fontes serão de fato sustentadas ou sustentáveis.
- (b) Em relação aos graves impactos sociais e ambientais:
  - uma falta de respostas satisfatórias a comentários submetidos em processos de consulta anteriores quando o projeto tentou o registro como projeto de MDL sob um título diferente e com uma metodologia diferente.

### Um breve histórico das tentativas do projeto da Plantar em conseguir o registro como projeto de MDL

O primeiro projeto de mercado de carbono da Plantar, que fazia parte do *Prototype Carbon Fund* (PCF) do Banco Mundial, foi elaborado antes da decisão tomada pela COP6.5 para excluir o ‘Desmatamento Evitado’ como uma categoria de projeto elegível para o Mecanismo de Desenvolvimento Limpo (MDL).

O argumento do projeto de ser ‘adicional’ tinha sido elaborado para que o mesmo pudesse se encaixar nessas regras antecipadas do MDL. Em 2002, o Banco Mundial admitiu numa correspondência para o *CDMWatch* que tinha mudado o desenho do projeto “*de forma radical para eliminar o risco de que o projeto fosse visto dessa forma [ou seja, como desmatamento evitado] pelas Partes/CE [Conselho Executivo do MDL]*”<sup>1</sup>. No entanto, até mesmo o atual Documento do Desenho do Projeto continua fazendo referência ao risco de colhendo ‘ilegamente’ madeira para fornecer carvão para a produção de ferro gusa se não houver logo financiamento extra para manter as plantações para carvão vegetal.

A segunda versão do Documento de Desenho do Projeto no que tange plantações de árvores para a qual a Plantar estava buscando o registro do MDL, afirmava que na ausência do retorno do registro do MDL e venda de créditos do MDL, a empresa teria que ter deixado de usar carvão vegetal e começado a usar carvão mineral como ‘agente de redução’ de emissões na sua produção de ferro gusa. Na época, FERN submeteu comentários extensos sobre a metodologia proposta para este projeto. Os argumentos e os dados apresentados na ocasião mantêm sua validade no momento atual. Elementos desta argumentação são mantidos no atual documento de desenho do projeto que continua afirmando que a empresa teria começado a usar carvão mineral nas suas usinas de ferro gusa. Portanto, o presente Documento de Desenho do Projeto representa a terceira tentativa do proponente do projeto a conseguir o registro do MDL. No decorrer do tempo, três argumentos diferentes para provar que o projeto seria adicional, além de três cenários de referência, têm sido usados para tentar basear a

defesa do projeto de que as plantações, que foram implantadas em 2000, conforme afirmações da documentação atual, não teriam sido implantadas a não ser na expectativa do rendimento do MDL. De acordo com os documentos do projeto, a expectativa de retorno da venda de créditos de MDL foi também um fator importante na negociação e assinatura de uma estrutura financeira de empréstimo com o *Rabo Bank*, contando com o acordo com o PCF do Banco Mundial de compra antecipada (ERPA): “O MDL já tem ajudado em superar uma parte substancial das barreiras acima mencionadas. [...] A entidade responsável pelo projeto tem conseguido recursos vendendo parte de suas reduções e remoções de emissões (um total de US\$ 5,3 milhões) para o Prototype Carbon Fund do Banco Mundial” E continua: “Esta transação só tem sido possível e o projeto conseguiu apenas se tornar aceitável através da sua elegibilidade para o MDL e créditos de carbono. [...]”

Esperamos que a existência destes acordos e a possibilidade de atrasos na devolução do empréstimo aprovado sobre a expectativa de um registro de MDL e geração de créditos de carbono não tem sido considerado na decisão da TUEV SUEDE de recomendar o projeto para validação!

Nosso comentário específico é o seguinte:

### 1. Argumentos de adicionalidade questionáveis

O atual Documento de Desenho do Projeto (PDD) parece avançar em dois diferentes argumentos em relação ao cenário de referência e adicionalidade. Um parece com o argumento de adicionalidade do projeto anterior que na ausência do financiamento de MDL, a empresa teria que ter mudado para o uso de carvão mineral na sua produção de ferro gusa. No PDD anterior, o Cenário de referência da Plantar afirmava:

“...o cenário de referência identificada para este projeto consiste nas seguintes tendências, que aconteceriam na ausência do financiamento de carbono e/ou outros incentivos financeiros:

- Uma redução acelerada na base florestal de plantações no estado de Minas Gerais na próxima década, causada pela colheita das florestas existentes (agora no ultimo ciclo de suas rotações) e pela falta de investimentos para o replantio”.
- A redução da base florestal leva à escassez de carvão como uma matéria prima para o pequeno setor independente de ferro gusa. Isso leva a um declínio gradual e eventual desaparecimento deste segmento de mercado” [Estudo do cenário de Referência, p. 25]

O atual PDD continua avançando neste argumento:

“Enquanto a grande maioria da produção brasileira de ferro se baseia no carvão mineral (vê figura 23), a menor parte muitas vezes dependia de práticas ilegais para sustentar sua produção no passado, por exemplo desmatamento ilegal e falsificação de licenças para a produção e o transporte de carvão”

Se olharmos para o contexto de todas as propriedades da Plantar, não podemos dar crédito a esta afirmação da empresa de que vai passar a usar carvão mineral. A empresa opera mais de 690 mil hectares de plantações para si mesma e para outras empresas, das quais ela possui integralmente pelo menos 103 mil hectares.<sup>1</sup> No entanto, ela agora afirma que se ela não receber os créditos de carbono para apenas 11.711 hectares de novas plantações, uma

<sup>1</sup> Além disso, em 2007, o Grupo Lorentzen, ex-dono da Aracruz Celulose/Fibria, fez uma 'joint venture' com a Plantar. O resultado foi uma nova empresa chamada Aflopar, que possui 60 mil hectares no estado de Minas Gerais. Objetivo é plantar eucalipto para carvão vegetal para ser vendido a usinas de ferro gusa na região. (Ferreira, Rodrigo, “Bioenergia e o mercado de carbono: oportunidades para a cadeia produtiva da siderurgia”, apresentação powerpoint durante “Seminário Bases Bioenergéticas para uma

quantidade igual a mais ou menos 3% da sua área total, ela não investirá no replantio. Além disso, ela alega que isso levará à “escassez de carvão” e à morte da indústria de ferro gusa baseada no carvão vegetal em Minas Gerais. Ao mesmo tempo, a empresa afirma que com a renda de MDL adicional para esta pequena porção de suas áreas com plantações, ela conseguirá assegurar o ‘abastecimento sustentável’ com carvão vegetal para sua produção inteira de ferro gusa: *“Por causa das atividades de projeto piloto, a ente do projeto se tornará a primeira na sua categoria para ter 100% da sua produção de ferro baseado em carvão vegetal renovável até 2007/2008”*. Nenhuma explicação é apresentada para fundamentar essas afirmações e suposições aparentemente contraditórias.

Será verdade que Plantar está alegando mesmo que um impedimento para conseguir créditos de carbono para plantações que representam apenas uma fração das suas áreas totais causará um efeito no sentido que ela não investirá mais em novas plantações? É difícil entender como uma parte tão pequena das suas operações poderia ser tão importante para a rentabilidade geral da empresa e sua decisão sobre investimentos futuros. Também é difícil acreditar como uma perda de apenas 3,3% da sua área total de plantações poderia levar a uma “escassez” no fornecimento do carvão vegetal de tal magnitude capaz de acabar com a indústria inteira de ferro gusa baseada em carvão vegetal.

## 2. Alegações de sustentabilidade carecem de evidências substantivas

O projeto alega que com “a implantação de plantações para abastecer toda sua produção de ferro com carvão vegetal de bases florestais renováveis em vez de agentes de redução (de emissões) intensivas em gases de efeito estufa (GHG)” a empresa será a “primeira na sua categoria”. Nenhuma evidência substantiva a mais é apresentada sobre quais outros “agentes de redução [de emissões] intensivos em GHG” a empresa tem usado no passado. Nenhuma evidência é dada de que a empresa usou carvão mineral em quantidades significativas, e tampouco o PDD sugere que a empresa usou madeira nativa cortada ilegalmente para a produção de carvão vegetal. Desta forma, o PDD falha em afirmar claramente o que quer dizer exatamente com sendo a “primeira na sua categoria” ou qual proporção do agente de redução foi a substância não sendo carvão vegetal de suas plantações de eucalipto existentes.

Os documentos do projeto alegam ainda que *“Uma vez que a colheita das plantações implantadas em 2000 começa em 2007/2008, o ente do projeto será o primeiro na sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável.”* Será que o proponente do projeto realmente sugere que o carvão vegetal produzido destes 11.711 hectares de novas plantações implantadas é suficiente para transformar a empresa na “primeira da sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável”? Além disso, os documentos do projeto falham em explicar porque as plantações nestas cerca de 11.700 hectares seriam renováveis, ou qual seria a evidência para sugerir que a proporção de carvão vegetal usada de outras áreas de plantações não cobertas pelo projeto de MDL proposto seriam ‘renováveis’, sem falar em sustentáveis. Esta alegação poderia ser ainda mais questionada uma vez que os documentos do projeto não dão nenhuma indicação como no final do ciclo de rotação de 21 anos os mesmos problemas com acesso a financiamento seriam evitados e que levou a empresa a alegar que teve que implantar estas plantações em novas áreas ou replantando em áreas que a empresa já possui mas que chegaram ao fim do seu ciclo de rotação e que a empresa afirma que não possam ser replantadas porque estão ‘exaustas’. Nenhum argumento substantivo é apresentado como a empresa pode, ao mesmo tempo, alegar que está capaz de produzir 100% de seu carvão

vegetal de recursos renováveis e, em outro lugar, alegar que precisaria de financiamento adicional para substituir plantações em 'terras exaustas'.

O projeto reivindicará créditos de carbono para um período de 30 anos. Os documentos do projeto falham em indicar se nos últimos dois anos alguma das áreas que tenham chegado ao fim do seu ciclo de 3 x 7 anos de rotação serão substituídas nessas áreas. Senão, como será assegurada a reserva de carbono que a empresa é obrigada a assegurar? Qual é a evidência que a empresa pode oferecer de que é capaz de garantir os meios financeiros para replantar estas áreas quando a falta de acesso a financiamento foi o argumento dado que a impossibilitaria de substituir as áreas existentes no final do seu ciclo de rotação ou para implantar plantações em novas áreas adquiridas?

#### 4. Impactos sociais e ambientais

Supostamente como evidência de ter levado em consideração comentários feitos sobre os graves impactos sociais e ambientais das operações com eucalipto da Plantar, o atual PDD afirma que *"Apesar que plantações de eucalipto para a produção de madeira para uso industrial e doméstico ter contribuído de forma significativa em termos de desenvolvimento socioeconômico, a produtividade de madeira e a qualidade de manejo ambiental, algumas reações públicas adversas a esta atividade foram observadas. Críticas são baseadas em argumentações ecológicas e econômicas sociais, algumas delas apoiadas em parâmetros técnicos e outras em mitos e preconceitos."*

Em relação ao relatório de certificação da SGS para o FSC, um relatório de consultoria crítico destacou as lacunas da avaliação de impactos sociais ambientais pela SGS<sup>2</sup>, bem como o grande número de documentos bem fundamentados de organizações da sociedade civil, bem como de acadêmicos, que dão testemunho das "argumentações ecológicas e sociais econômicas" apresentadas para explicitar a realidade de impactos ambientais e sociais significativos das plantações de eucalipto da Plantar na região. O intercâmbio de 'cartas' de vídeo chamado "A Conexão de Carbono" documenta visualmente alguns dos impactos na área do projeto. Não vamos aqui repetir os argumentos e evidências já apresentadas em outras ocasiões ao Conselho Executivo do MDL sobre a questão e nos referimos aos seguintes documentos escritos e visual que detalham o conjunto de impactos socioeconômicos e ambientais negativos causados pelas plantações de eucalipto da Plantar.

#### ***Algumas referências para substanciar os impactos sociais e ambientais significativas***

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<sup>2</sup> Hammond, Herb (2004): *Initial Review of Forest Stewardship Council Certification of*

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Civil Society letter (2010) Plantar S.A. CDM project: Global warming continues unabated. Civil Society letter signed by [number] organisations

## **Conclusão**

Os comentários acima citados, junto com os comentários sobre versões anteriores da documentação do projeto, inclusive para as mesmas áreas e atividade (implantando plantações de eucalipto em cerca de 11.000 hectares de pastagem recentemente adquirida pela Plantar S/A) continua levantando duvidas sobre os argumentos escolhidos em relação ao cenário de referencia e à adicionalidade, defendidos pela Plantar S/A e o PCF do Banco Mundial. Recomendamos fortemente que o projeto não seja validado, e que não seja aprovado pelo Conselho Executivo do MDL para registro.

Além disso, gostaríamos de observar que existência da documentação do projeto apenas em inglês e o anúncio do período de comentários ampliado num site na internet que não fornece informação na língua falada na área do projeto (português) limita seriamente a possibilidade para os atores afetados diretamente pelas operações do proponente do projeto submeter comentários sobre a atividade do projeto proposto.

Além disso, gostaríamos de expressar nossa surpresa com este período de comentários ampliado, iniciado durante a suspensão da empresa de consultoria que validou o projeto. Na ausência de um sistema de alerta-informação funcionando, a **FASE NACIONAL** tomou conhecimento da ampliação do prazo para fazer comentários apenas três semanas depois do início deste período. Se o sistema tem como objetivo solicitar contribuições, o sistema de notificação certamente tem muito a melhorar!

## **Assinado**

**FASE NACIONAL - RJ**

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<sup>1</sup> Email from Ken Newcombe, Director PCF, to CDM Watch, 4.March 2002



## Comentários sobre o projeto da Plantar da Movimento Mundial pelas Florestas Tropicais

### Introdução

Neste documento, seguem os comentários de Movimento Mundial pelas Florestas Tropicais sobre o projeto da Plantar, chamado **“Reflorestamento como fonte renovável de fornecimento de madeira para fins industriais no Brasil, Versão: 03a”**. Este projeto está buscando o registro como projeto de MDL Movimento Mundial pelas Florestas Tropicais não acredita que este projeto deveria ser registrado ou validado. Os motivos são muitos e incluem:

- (a) Em relação às exigências técnicas para o registro como projeto de MDL:
  - O argumento de ser um projeto adicional continua sendo tão questionável quanto a primeira vez que o projeto foi apresentado para validação numa versão diferente, já vários anos atrás.
  - O projeto afirma produzir fontes sustentáveis de biomassa sem providenciar qualquer evidência substancial de que essas fontes serão de fato sustentadas ou sustentáveis.
- (b) Em relação aos graves impactos sociais e ambientais:
  - uma falta de respostas satisfatórias a comentários submetidos em processos de consulta anteriores quando o projeto tentou o registro como projeto de MDL sob um título diferente e com uma metodologia diferente.

### Um breve histórico das tentativas do projeto da Plantar em conseguir o registro como projeto de MDL

O primeiro projeto de mercado de carbono da Plantar, que fazia parte do *Prototype Carbon Fund* (PCF) do Banco Mundial, foi elaborado antes da decisão tomada pela COP6.5 para excluir o ‘Desmatamento Evitado’ como uma categoria de projeto elegível para o Mecanismo de Desenvolvimento Limpo (MDL).

O argumento do projeto de ser ‘adicional’ tinha sido elaborado para que o mesmo pudesse se encaixar nessas regras antecipadas do MDL. Em 2002, o Banco Mundial admitiu numa correspondência para o *CDMWatch* que tinha mudado o desenho do projeto *“de forma radical para eliminar o risco de que o projeto fosse visto dessa forma [ou seja, como desmatamento evitado] pelas Partes/CE [Conselho Executivo do MDL]”*<sup>1</sup>. No entanto, até mesmo o atual Documento do Desenho do Projeto continua fazendo referência ao risco de colhendo ‘ilegamente’ madeira para fornecer carvão para a produção de ferro gusa se não houver logo financiamento extra para manter as plantações para carvão vegetal.



A segunda versão do Documento de Desenho do Projeto no que tange plantações de árvores para a qual a Plantar estava buscando o registro do MDL, afirmava que na ausência do retorno do registro do MDL e venda de créditos do MDL, a empresa teria que ter deixado de usar carvão vegetal e começado a usar carvão mineral como 'agente de redução' de emissões na sua produção de ferro gusa. Na época, FERN submeteu comentários extensos sobre a metodologia proposta para este projeto. Os argumentos e os dados apresentados na ocasião mantêm sua validade no momento atual. Elementos desta argumentação são mantidos no atual documento de desenho do projeto que continua afirmando que a empresa teria começado a usar carvão mineral nas suas usinas de ferro gusa. Portanto, o presente Documento de Desenho do Projeto representa a terceira tentativa do proponente do projeto a conseguir o registro do MDL. No decorrer do tempo, três argumentos diferentes para provar que o projeto seria adicional, além de três cenários de referência, têm sido usados para tentar basear a defesa do projeto de que as plantações, que foram implantadas em 2000, conforme afirmações da documentação atual, não teriam sido implantadas a não ser na expectativa do rendimento do MDL. De acordo com os documentos do projeto, a expectativa de retorno da venda de créditos de MDL foi também um fator importante na negociação e assinatura de uma estrutura financeira de empréstimo com o *Rabo Bank*, contando com o acordo com o PCF do Banco Mundial de compra antecipada (ERPA): *"O MDL já tem ajudado em superar uma parte substancial das barreiras acima mencionadas. [...] A entidade responsável pelo projeto tem conseguido recursos vendendo parte de suas reduções e remoções de emissões (um total de US\$ 5,3 milhões) para o Prototype Carbon Fund do Banco Mundial"* E continua: *"Esta transação só tem sido possível e o projeto conseguiu apenas se tornar aceitável através da sua elegibilidade para o MDL e créditos de carbono. [...]"*

Esperamos que a existência destes acordos e a possibilidade de atrasos na devolução do empréstimo aprovado sobre a expectativa de um registro de MDL e geração de créditos de carbono não tem sido considerado na decisão da TUEV SUEDE de recomendar o projeto para validação!

Nosso comentário específico é o seguinte:

## **1. Argumentos de adicionalidade questionáveis**

O atual Documento de Desenho do Projeto (PDD) parece avançar em dois diferentes argumentos em relação ao cenário de referência e adicionalidade. Um parece com o argumento de adicionalidade do projeto anterior que na ausência do financiamento de MDL, a empresa teria que ter mudado para o uso de carvão mineral na sua produção de ferro gusa. No PDD anterior, o Cenário de referência da Plantar afirmava:

*“...o cenário de referência identificada para este projeto consiste nas seguintes tendências, que aconteceriam na ausência do financiamento de carbono e/ou outros incentivos financeiros:*

- Uma redução acelerada na base florestal de plantações no estado de Minas Gerais na próxima década, causada pela colheita das florestas existentes (agora no ultimo ciclo de suas rotações) e pela falta de investimentos para o replantio”.*
- A redução da base florestal leva à escassez de carvão como uma matéria prima para o pequeno setor independente de ferro gusa. Isso leva a um declínio gradual e eventual desaparecimento deste segmento de mercado” [Estudo do cenário de Referência, p. 25]*

O atual PDD continua avançando neste argumento:

*“Enquanto a grande maioria da produção brasileira de ferro se baseia no carvão mineral (vê figura 23), a menor parte muitas vezes dependia de práticas ilegais para sustentar sua produção no passado, por exemplo desmatamento ilegal e falsificação de licenças para a produção e o transporte de carvão”*

Se olharmos para o contexto de todas as propriedades da Plantar, não podemos dar crédito a esta afirmação da empresa de que vai passar a usar carvão mineral. A empresa opera mais de 690 mil hectares de plantações para si mesma e para outras empresas, das quais ela possui integralmente pelo menos 103 mil hectares. <sup>1</sup>No entanto, ela agora afirma que se ela não receber os créditos de carbono para apenas 11.711 hectares de novas plantações, uma quantidade igual a mais ou menos 3% da sua área total, ela não investirá no replantio. Além disso, ela alega que isso levará à “escassez de carvão” e à morte da indústria de ferro gusa baseada no carvão vegetal em Minas Gerais. Ao mesmo tempo, a empresa afirma que com a renda de MDL adicional para esta pequena porção de suas áreas com plantações, ela conseguirá assegurar o ‘abastecimento sustentável’ com carvão vegetal para sua produção inteira de ferro gusa: “Por causa das atividades de projeto piloto, a ente do projeto se tornará a primeira na sua categoria para ter 100% da sua produção de ferro baseado em carvão vegetal renovável até 2007/2008”. Nenhuma explanação é apresentada para fundamentar essas afirmações e suposições aparentemente contraditórias.

Será verdade que Plantar está alegando mesmo que um impedimento para conseguir créditos de carbono para plantações que representam apenas uma fração das suas áreas totais causará um efeito no sentido que ela não investirá mais em novas plantações? É difícil entender como uma parte tão pequena das

<sup>1</sup> Além disso, em 2007, o Grupo Lorentzen, ex-dono da Aracruz Celulose/Fibria, fez uma ‘joint venture’ com a Plantar. O resultado foi uma nova empresa chamada Aflopap, que possui 60 mil hectares no estado de Minas Gerais. Objetivo é plantar eucalipto para carvão vegetal para ser vendido a usinas de ferro gusa na região. (Ferreira, Rodrigo, “Bioenergia e o mercado de carbono: oportunidades para a cadeia produtiva da siderurgia”, apresentação powerpoint durante “Seminário Bases Bioenergéticas para uma Indústria Verde”, 6 Abril 2010)

21  
suas operações poderia ser tão importante para a rentabilidade geral da empresa e sua decisão sobre investimentos futuros. Também é difícil acreditar como uma perda de apenas 3.3% da sua área total de plantações poderia levar a uma “escassez” no fornecimento do carvão vegetal de tal magnitude capaz de acabar com a indústria inteira de ferro-gusa baseada em carvão vegetal.

## 2. Alegações de sustentabilidade carecem de evidencias substantivas

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O projeto alega que com “a implantação de plantações para abastecer toda sua produção de ferro com carvão vegetal de bases florestais renováveis em vez de agentes de redução (de emissões) intensivos em gases de efeito estufa (GHG)” a empresa será a “primeira na sua categoria”. Nenhuma evidência substantiva a mais é apresentada sobre quais outros “agentes de redução [de emissões] intensivos em GHG” a empresa tem usado no passado. Nenhuma evidência é dada de que a empresa usou carvão mineral em quantidades significativas, e tampouco o PDD sugere que a empresa usou madeira nativa cortada ilegalmente para a produção de carvão vegetal. Desta forma, o PDD falha em afirmar claramente o que quer dizer exatamente com sendo a “primeira na sua categoria” ou qual proporção do agente de redução foi a substância não sendo carvão vegetal de suas plantações de eucalipto existentes.

Os documentos do projeto alegam ainda que *“Uma vez que a colheita das plantações implantadas em 2000 começa em 2007/2008, o ente do projeto será o primeiro na sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável.”* Será que o proponente do projeto realmente sugere que o carvão vegetal produzido destes 11.711 hectares de novas plantações implantadas é suficiente para transformar a empresa na *“primeira da sua categoria para ter 100% de sua produção de ferro baseada em carvão vegetal renovável”*? Além disso, os documentos do projeto falham em explicar porque as plantações nestas cerca de 11.700 hectares seriam renováveis, ou qual seria a evidência para sugerir que a proporção de carvão vegetal usada de outras áreas de plantações não cobertas pelo projeto de MDL proposto seriam ‘renováveis’, sem falar em sustentáveis. Esta alegação poderia ser ainda mais questionada uma vez que os documentos do projeto não dão nenhuma indicação como no final do ciclo de rotação de 21 anos os mesmos problemas com acesso a financiamento seriam evitados e que levou a empresa a alegar que teve que implantar estas plantações em novas áreas ou replantando em áreas que a empresa já possui mas que chegaram ao fim do seu ciclo de rotação e que a empresa afirma que não possam ser replantadas porque estão ‘exaustas’. Nenhum argumento substantivo é apresentado como a empresa pode, ao mesmo tempo, alegar que está capaz de produzir 100% de seu carvão vegetal de recursos renováveis e, em outro lugar, alegar que precisaria de financiamento adicional para substituir plantações em ‘terras exaustas’.

O projeto reivindicará créditos de carbono para um período de 30 anos. Os documentos do projeto falham em indicar se nos últimos dois anos alguma das

áreas que tenham chegado ao fim do seu ciclo de 3 x 7 anos de rotação serão substituídas nessas áreas. Senão, como será assegurada a reserva de carbono que a empresa é obrigada a assegurar? Qual é a evidência que a empresa pode oferecer de que é capaz de garantir os meios financeiros para replantar estas áreas quando a falta de acesso a financiamento foi o argumento dado que a impossibilitaria de substituir as áreas existentes no final do seu ciclo de rotação ou para implantar plantações em novas áreas adquiridas?

#### 4. Impactos sociais e ambientais

Supostamente como evidência de ter levado em consideração comentários feitos sobre os graves impactos sociais e ambientais das operações com eucalipto da Plantar, o atual PDD afirma que *“Apesar que plantações de eucalipto para a produção de madeira para uso industrial e doméstico ter contribuído de forma significativa em termos de desenvolvimento socioeconômico, a produtividade de madeira e a qualidade de manejo ambiental, algumas reações públicas adversas a esta atividade foram observadas. Críticas são baseadas em argumentações ecológicas e econômicas sociais, algumas delas apoiadas em parâmetros técnicos e outras em mitos e preconceitos.”*

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Civil Society letter (2010) Plantar S.A. CDM project: Global warming continues unabated. Civil Society letter signed by [number] organisations

## **Conclusão**

Os comentários acima citados, junto com os comentários sobre versões anteriores da documentação do projeto, inclusive para as mesmas áreas e atividade (implantando plantações de eucalipto em cerca de 11.000 hectares de pastagem recentemente adquirida pela Plantar S/A) continua levantando dúvidas sobre os argumentos escolhidos em relação ao cenário de referência e à adicionalidade, defendidos pela Plantar S/A e o PCF do Banco Mundial. Recomendamos fortemente que o projeto não seja validado, e que não seja aprovado pelo Conselho Executivo do MDL para registro.

Além disso, gostaríamos de observar que a existência da documentação do projeto apenas em inglês e o anúncio do período de comentários ampliado num site na internet que não fornece informação na língua falada na área do projeto (português) limita seriamente a possibilidade para os atores afetados diretamente pelas operações do proponente do projeto submeter comentários sobre a atividade do projeto proposto.

Além disso, gostaríamos de expressar nossa surpresa com este período de comentários ampliado, iniciado durante a suspensão da empresa de consultoria que validou o projeto. Na ausência de um sistema de alerta-informação funcionando, Movimento Mundial pelas Florestas Tropicais tomou conhecimento da ampliação do prazo para fazer comentários apenas três semanas depois do início deste período. Se o sistema tem como objetivo solicitar contribuições, o sistema de notificação certamente tem muito a melhorar!

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<sup>1</sup> Email from Ken Newcombe, Director PCF, to CDM Watch, 4.March 2002

## Annex 3

### Re-GSP Comments for the CDM Project: “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil”

Date: 16 th June 2010



- A. The following entities / persons have submitted comments of highly similar or identical content. The responses and conclusions in regard to the relevance of these comments have been processed and elaborated in a combined manner.  
As the comments raised several issues, each issue is replied to separately.

Comments have been provided by:

- Klemens Laschefski, Federal University of Viçosa, Brazil
- Jutta Kill, FERN
- Wolfgang Kuhlmann, ARA (Working Group on Rainforests and Biodiversity, Germany)
- Carbon Trade Watch, International and Carbon Trade Watch International and Nou Sud / Marc Masmiquel (three identical comments submitted)
- World Rainforest Movement on behalf of Movimento Mundial pelas Florestas Tropicais,
- FASE/ES and FASE NACIONAL (two identical comments submitted)

Comment	Reply by Project Participants (PPs)	Audit conclusion
<b>1. Additionality/Baseline:</b> <i>“The additionality argument is as questionable as it was when the project in a different version was submitted for validation in 2003”</i>		
<u>Baseline:</u> The current Project Design Document (PDD) appears to advance two different baseline and additionality arguments. One appears to be a remnant of the project's previous additionality argument that in the absence of CDM funding, the company would have had to switch to using mineral coal in its pig iron production. In the previous PDD, the Plantar Baseline stated:  <i>“...the baseline scenario identified for this project consists of the following trends, which would take place in the absence of carbon finance and/or other financial incentives:</i>	This A/R CDM project activity has not been submitted for validation before. A non-A/R component of the CDM project activities developed by the project entity was validated in 2002 by a different DOE, as per the applicable regulations at that time. The PPs have not submitted it to registration because they decided to wait for the completion of the A/R modalities and procedures. Then, PPs had to develop the related CDM methodologies, as per the ongoing evolution in CDM regulations, which took time. The additionality argument is as valid as it was when the projects were conceived and started in association with the World Bank's Prototype Carbon Fund. In fact, it has become even stronger over time.	The comment / argument on the fact that in absence of the reforestation project the demand of charcoal or coal Plantar's iron production would need to be provided from other sources is not considered to change or impact the additionality discussion as documented in the PDD, scrutinized in the audit and summarized in the validation report (compare alternatives identified and barriers presented).  In conclusion, all relevant alternatives and baseline scenarios have been documented and discussed.



### Annex 3

#### Re-GSP Comments for the CDM Project: “Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil”

Date: 16 th June 2010



<ul style="list-style-type: none"> <li>• <i>An accelerated reduction in the plantation forestry base in the state of Minas Gerais, within the next decade, caused by harvesting of existing forests (now in the last cycle of their rotations) and lack of investment into replanting”</i></li> <li>• <i>The reduction of the forest base leads to scarcity of charcoal as a raw material for the small independent pig iron sector. This leads to the gradual decline and eventual death of this market segment”. [Baseline Study, p 25].</i></li> </ul> <p>The current PDD continues to advance this argument: <i>“Whereas, the vast majority of the Brazilian iron production is based on coal coke (see <b>Figure 23</b>) the minor part often relied on illegal practices to sustain their production in the past, e.g. illegal logging and falsification of licenses for the production and transportation of charcoal.”</i></p>	<p>As widely known in Brazil and documented in the PDD, the country has been facing a major deficit of renewable charcoal for iron and steel making for a long time, especially since the end of the fiscal incentives for the establishment of planted forests, in 1988. During the fiscal incentives program, there were more than 2,5 million hectares of planted forests for renewable charcoal. At the time the project started 2000, i.e. after the end of the fiscal incentives, there were less than 1,6 million hectares, and today there are less than 1,1 million hectares, which clearly corroborates the lack of investment in new plantations (replanting). On the other hand the production of iron and steel has increased by more than 30%, and the Brazilian economy has rapidly been opened which further stimulated the use of coal. The quotation below provides a good summary of these trends:</p> <p><i>“Nevertheless, fiscal incentives to plant forest were removed in the late 1980s, decreasing and even stopping the establishment of new forests. Moreover, the wave of opening of the national market to imports led to the increase in coke production, encouraged by its immediate availability and cost-effectiveness, which was lower if compared to the cost of implanting and maintaining a forest. During the 1990s, the privatization of integrated steel and iron industries resulted in the shutdown or conversion of charcoal furnaces into coke furnaces. This scenario led many small and independent steel and iron industries to close because of the difficulty finding enough charcoal to keep their blast furnaces working” (Brazil, 2007).</i></p> <p>With the lack of renewable charcoal, the alternatives would</p>	<p>For the actual areas included to the project the continuations as grassland (scenario 1) was the mostlikely land use scenario prior to project start – as discussed in the validation report and as sustained by regional data and land use change and reforestation trends for the region. (compare sources is Information Reference List).</p> <p>Compare also what has been actually documented in the PDD on reforstation rates under baseline conditions / in absence of the project. See also explanations in the row below on this matter.</p>
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	<p>be the use coal coke or non-renewable charcoal. The quotation on the left side of this table referring to the use of non-renewable charcoal in the past is correct. But, when taken out of the PDD context it may be misleading. The PDD clearly explains the increasing legal restrictions to the use of non-renewable charcoal (a scenario that does not meet legal requirements). As such, it is not difficult to conclude that with the lack of renewable charcoal from planted forests, and with the legal restrictions to the use of non-renewable charcoal, the remaining alternative and most likely scenario in the absence of the project is the use of coal coke (absence of carbon stocks), which is being the basis for the expansion of the iron and steel production in Brazil. A very similar scenario has taken place at the international level, i.e. coal coke has prevailed with the scarcity of natural forests, especially after the industrial revolution. Today, more than 98% of the world's blast furnace iron production is based on coal coke.</p> <p>The facts, evidence and arguments herein presented and referred to have been provided in the PDD and the project has met all requirements of the additionality tool, as required by the methodology and validated by the DOE.</p>	
<p>When viewed in the context of Plantar's total holdings this claim of the company switching to coal coke is not credible. The company operates more than 690,000 hectares of plantations for itself and other companies, of which it owns at least 103,000 hectares outright. Yet it is now claiming that if it does not get carbon credits for <i>only 11,711 hectares</i> of new plantations, an amount equal to <i>about 3% of its total holdings</i>, it will not invest in replanting.</p>	<p>Within the Plantar Group, a medium sized family enterprise, there are different companies that perform separate business activities, especially the provision of forest management services to other companies in Brazil, which have no relationship with its iron production. As in any business group, each business activity has its own opportunity costs and its own dynamics. Plantar does not own 690,000 hectares nor 103,000 hectares of plantations. The area required to supply the pig iron production is of approximately 23,000 hectares, which have been under its</p>	<p>It was confirmed with the PP that the data provided as comment on larger areas of plantation operations (690.000 ha) and plantation ownership (103.000 ha) is not correct. The information provided by the PP is consisted with earlier analysis.</p> <p>It was noted that in the comments supplied to the DOE the commenting enties did not provide the sources for these indications.</p>

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	<p>current CDM project activities since 2000. Nonetheless, only 11,711 ha included in the A/R CDM project activity at stake (tCERs due to net GHG removals) because of A/R eligibility constraints. The remaining part is included in the other CDM components (CERs from the use of renewable charcoal in the blast furnace). Other areas operated by Plantar are part of separate business or projects, which are not related with the current A/R CDM project activity, e.g. legal reserve areas, areas for the conservation of native forests, wood for construction appliances, furniture and the provision of forest management services to third parties.</p>	<p>The statement of the PP that at the point of validation only a part (around 50%) of their plantations (aprox 23.000 ha) was included is correct. In comparison to earlier stages of initial PDD design, the UNFCCC land eligibility criteria have undergone changes in the course of time. This has also impacted the area included to the project. Only AR-CDM eligible area was included to the project.</p> <p>In conclusion, the relevant information on areas has been considered in the audit.</p> <p>Further comment on baseline action: The presence and consideration of a “baseline reforestation rate” for Plantar (this argument is considered to be indirectly included to this comment) was fully discussed and analyzed in the validation process (compare Annex 1 of validation report). As per methodology, entity specific and / or regional reforestation rates were considered and discounted from overall carbon sequestration.</p>
<p>It is furthermore claiming that this will lead to “scarcity of charcoal” and the death of the charcoal-based pig iron industry in Minas Gerais. At the same time, the company claims that with additional CDM revenue for this small portion of its plantation holdings it will be able to ensure the ‘sustainable supply’ with charcoal for the company’s entire pig iron production: “Because of its pioneer project activities, the project entity will become the first of its kind to have 100% of its iron production based on renewable charcoal by 2007/2008”. No explanation is provided for these</p>	<p>See explanations above regarding the project’s related iron production and the scarcity of renewable charcoal. Indeed, as a result of the CDM, Plantar has become the first company capable of producing 100% of its iron output based on renewable charcoal, as further explained and documented in the PDD. There is no contradiction between this fact and the scarcity of renewable charcoal in the industry. The prevailing scarcity of renewable charcoal since the project’s starting date reinforces the project’s additionality (see the PDD for a complete assessment of the baseline, additionality and of the key barriers). Indeed,</p>	<p>In regard to comments to pig iron production it is underlined that the boundary of this project contains only the reforestation.</p> <p>The discussion on the wording “first-of-its kind” as used in the PDD was not further traced by the validator. It is underlined that this is not referring to the “first of its kind” term as used in the CDM context - but simply describes the PP’s intention to be the first company in Brazil that fully supplies big iron production (not included to this</p>

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seemingly contradictory statements and assumptions.	the establishment of new planted forests for the production or renewable charcoal is broadly recognized as one of the main problems to be overcome by Brazil, as explained throughout the PDD and in this document.	project) with charcoal (not included to this project) through wood produced in a plantation (activity of this project).  In conclusion the aspect of the proportion of pig iron produced with sustainable charcoal is not considered decisive for the baseline and additionality approach as presented in this project. All relevant aspects have been considered.
Is Plantar really claiming that a failure to get carbon credits for plantations representing only a fraction of its total holdings will cause it to not invest in new plantations? It is hard to see how such a small part of its operations could be so important to the company's overall profitability and its decision about future investments. It is also hard to see how the loss of only 3.3% of its total plantations could lead a "scarcity" in the supply of charcoal of such magnitude as to kill off the entire charcoal-based pig iron industry.	This is not correct. See explanations above.	This section of the comments put the project at doubt in a general manner while not providing specific arguments. All relevant contents on additionality and baseline setting are considered in the PDD and the validation.
<u>Common practice</u> Furthermore, the following news article from 2004 suggests that contrary to statements in the project documentation, plantations for charcoal productions were expanding significantly in Minas Gerais, and charcoal was available at a price well below the price of mineral coal. Neither the project proponents nor the DOE appear to have taken note of these facts or seen any need to acknowledge these trends in project documentation.	Even though 2004 is after the project's starting date, it is important to clarify that there was indeed an increase in the planted area in 2004 in absolute terms (supply side). However, as explained and documented in the PDD, the production (demand side) of iron has increased much more, resulting in an ex-post increase of the deficit of renewable charcoal, which has been the historic and projected trend (see Graph on Section C.5). Even if the production of iron ever falls to its historical low (extremely unlikely due to the Brazilian growth), the use of renewable charcoal from planted forests would still be very far from being the common practice in the industry. Actually, the	In general it is underlined that the view on the additionality / common practice of project action needs to consider the historic situation and setting prior to project start. The reference provided by the commenting entity is dated after project start and is therefore not considered relevant. The audit team noted some further plantation action in the region, mostly installed posterior to the starting date of this project. This was discussed and analyzed in the audit process. And as highlighted previously, reforestation at

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	<p>2004 article itself also notes the ongoing deficit of planted forests for renewable charcoal, in spite of the absolute increase in that year.</p> <p>The same rationale applies for the potential effects of price changes, as documented and explained in the PDD, i.e. in spite of increases in iron/charcoal prices the deficit of renewable charcoal has also increased. This points to the existence of market failures in the use of renewable charcoal. In fact, there is no structured market for renewable charcoal, since there is no excess amount to the residual use at the firm level. Even if the price of coal relative to the price of charcoal goes down in one or two years (which is usually unlikely, given the higher transaction costs and capital costs of renewable charcoal – often not considered), the historical, current and project trends clearly indicate that these price changes have not been substantial to the point of eliminating the risk aversion to renewable charcoal and stimulating its relative increase. One of the many reasons for that is the dependence on an extremely long-term investment decision (up to 28 years) with a far greater degree of unpredictability and uncertainty than the use of coal. Coal is a the most readily available fossil fuel in the world, a global commodity, and benefits from several internal and external economies of scale, standardized markets, logistic patterns and is not legally restricted. On the other hand, the use of renewable charcoal faces various barriers. See the PDD for the detailed explanation and evidence.</p>	<p>the regional level were considered as per methodology and discussed in the common practice section of the PDD. In conclusion, all relevant requirements and criteria have been considered.</p>
<p><b>2. “Sustainability”:</b>  <i>“The project claims to produce sustainable sources of biomass without providing any substantive evidence that the source of supply will indeed be sustained or sustainable”</i></p>		

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<p><u>“First-of-its kind”</u></p> <p>The project claims that “the establishment of plantations to supply all of its iron production with charcoal from renewable wood supplies instead of GHG intensive reducing agents” will be a ‘first of its kind’ for Plantar. No further substantive evidence is given as to what other “GHG intensive reducing agents” the company has used in the past. No evidence is given that the company used coal coke in significant amounts nor does the PDD suggest that the company used illegally harvested native timber for charcoal production. Thus, the PDD fails to state clearly wherein the ‘first of its kind’ contribution of this project lies or what proportion of the reducing agent was a substance other than charcoal produced from existing eucalyptus plantations.</p>	<p>From the end of the fiscal incentives, in the late 80’s, until the CDM project started, the project entity’s plantations have varied from zero to irrelevant figures (on average, less than 8% of the annual area required to supply the iron mill). In this period, Plantar used renewable charcoal from the harvesting of its planted forests previously established <u>with the fiscal incentives</u>. Non-renewable charcoal was also used in the past, which was legal at the time, to supplement the increasing lack of planted stocks. However, as the harvesting of the plantations established with the fiscal incentives terminated, the iron production would have to be supplied either with non-renewable charcoal (legally restricted as legislation evolved) or with coal coke. Thus, given the scarcity of renewable charcoal from planted forests, at the company level and at the industry level, the most likely scenario in the absence the project has been the use of coal coke and the ensuing lack of carbon stocks. With the pioneer CDM project, started in 2000 in association with the World Bank, Plantar was able to invest in new dedicated plantations for renewable charcoal, generating the additional carbon stocks claimed under this A/R CDM activity. Accordingly, the project plantations have been established in degraded areas or in areas covered with pastureland. As they reached maturity by 2007/2008, the company has become the first to have all of its iron production based on renewable charcoal, as explained in detailed and documented in the relevant PDD sections.</p>	<p>The comment refers to use of wood in the related pig iron production (prior to project start).</p> <p>Conditions prior to project start and how the wood demand of the pig iron industry was met (not part of project boundary) are not considered relevant. However, the PP explained the pre-project setup.</p> <p>Also the aspect that Plantar intends to supply its wood demand completely through reforestation activities and how this relates to first of its kind definitions has been explained in previous sections.</p> <p>In essence, the comment is not considered relevant to the argumentation line as presented in the PDD and in the validation report.</p>
<p>The project documents further claim that “As the harvesting of the project plantations established in 2000 commences in 2007/2008, the project entity will be the first of its kind to have 100% of its iron production based on renewable charcoal.” Does the</p>	<p>As explained above, the related project’s iron production requires approximately 23,000 hectares of planted forests to be fully based on renewable charcoal, of which 11,711 hectares are taken from the A/R CDM activity under registration. The rest comes from other areas, which had</p>	<p>The aspect of wood supply to related industries has been discussed in the previous sections, and is not considered to impact the audit conclusions.</p>

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<p>project proponent really suggest that the charcoal produced from these 11,711 ha of newly established plantations is sufficient to turn the company into a “the first of its kind to have 100% of its iron production based on renewable charcoal”?</p>	<p>to be removed from this A/R activity due to eligibility constraints, but are included under the non-A/R CDM project activity.</p>	
<p><u>Permanence / sustainability:</u> Furthermore, the project documents fail to explain why the plantations on these ca. 11,700 ha would be renewable, or what evidence there is to suggest that the proportion of charcoal used from other plantation areas not covered by the proposed CDM project would be ‘renewable’, let alone sustainable. This claim would be further called into question as the project documents do not give any indication how at the end of the 21-year rotation cycle the same problems with access to financing would be prevented that the company claims to have had to establish these plantations on new areas, or to replant plantations on areas the company already owns but which have reached the end of their rotation and which the company claims to not be able to replant because they are ‘exhausted’. No substantive argument is provided how the company can at the same time claim to be able to produce 100% of the charcoal from renewable resources and elsewhere, claim that it would require additional funding to replace plantations on ‘exhausted lands’.</p>	<p>As explained and documented in the PDD, all planted forests under the project meet the definition of renewable biomass. In fact, by definition, planted forests established for commercial and industrial purposes are renewable, since they constitute a dedicated source of wood supplies newly established for that purpose.</p> <p>As explained and documented in the PDD, the CDM was the key incentive to establish new plantations to supply 100% of the iron production. The new plantations were established in areas containing pasturelands/degraded areas (under the A/R component) and the other part (not under the A/R component) in areas that were harvested and were not replanted.</p> <p>Indeed, after the end of the project’s lifetime, one can not ensure whether or not there will be new heavy investments in the establishment of new plantations, which would be a “problem” for a potential new CDM project decades from now. That is precisely why the CDM has been so important so far, since it helped overcoming the existing barriers, allowing the establishment of the required amount of new stocks of dedicated plantations during the project lifetime. In our view, the permanence issue has already been adequately addressed by the modalities and procedures of A/R CDM, which defined A/R credits as temporary (tCERs or ICERs that can only be issued if adequately verified).</p>	<p>The comment raised the concern that the project / the reforestation is not continued up to the end of the crediting period of 30 years. The validated PDD foreseen rotation cycles of 7 years – for four times and a total of 28 years (not 21 years). Figure 42 of the PDD provides further details on the rotation and plantation cycle for the operational lifetime / crediting period of 30 years. The audit team considers that an overall continuation also up to year 30 is feasible as presented (also in the TARAM model), especially considering phased planting and harvesting actions on the different plots. Any stop of project action prior to end of crediting period would not lead to the issuance of credits – hence environmental integrity in this regard is assured based on the concept of temporary CERs. In conclusion, the aspect does not impact the conclusion of the audit team.</p>



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<p>The project will be claiming carbon credits over a 30-year period. The project documents fail to indicate whether in the final two years any of the areas that will have reached the end of their 3x 7-year rotation cycle plantations will be replaced on these areas. If they are not, how would the carbon storage the company will be obliged to ensure be ensured? What evidence can the company provide that it will be able to have the financial means to replant these areas when lack of access to finance was the argument given not to be able to replace existing areas at the end of their rotation cycle or to establish plantations on newly acquired lands?</p>	<p>See explanation above.</p>	<p>The comment consists of questions, putting at doubt long term implementation. Aspect was discussed in previous section.</p>
<p><b>3. Social and environmental impacts:</b>  <i>“A lack of substantive responses to comments submitted in earlier rounds when the project attempted CDM registration under a different title and with a different methodology”</i></p> <p>Supposedly as evidence of having taken into consideration comments made about the significant social and environmental impacts of Plantar’s eucalyptus operations, the current PDD states that <i>“Although the eucalyptus plantations for the production of wood for industrial and domestic use have contributed significantly in terms of socioeconomic development, wood productivity and environmental management quality of the plantations, some adverse public reactions to this activity are observed. Criticisms are based on ecological and social economical argumentations, some of them supported by technical parameters and others by myths and prejudice.”</i></p> <p>The SGS certification report for the FSC, a critical consultancy report highlighting the incompleteness of the SGS assessment of environmental and social</p>		
<p>This project had not been submitted for CDM registration so far nor used a different methodology, as previously explained. All areas covered by the current Plantar CDM projects are certified in accordance with the principles criteria of the Forest Stewardship Council (FSC), the World’s most respected forestry certification standard. FSC is supported by more than 800 NGOs, private companies and individuals, encompassing strict social and environmental criteria that go beyond legislation in Brazil, which is already quite strict. The entity that has certified the project entity is not SGS.</p> <p>Whenever comments are made on the social and environmental aspects of the project related plantations, they are assessed by independent auditors, based on periodic stakeholder consultation processes, technical and scientific literature, professional judgement, public hearings and field visits. All comments made since the</p>	<p>The comment refers to social and environmental impacts. However, no concrete impacts are indicated in the comment. It is underlined that the project is holding</p> <ul style="list-style-type: none"> <li>- the relevant environmental licences</li> <li>- has been certified according to FSC</li> <li>- has undergone all requirements for stakeholder consultation as per DNA and CDM requirements.</li> </ul> <p>The reforestation occurred on pasture land and no displacement of people has occurred. The conclusions of the validator are not impacted by the comment.</p>	



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<p>impacts as well as a large number of well-referenced documents by civil society organizations and academics give testimony to the well founded “ecological and social economical argumentations” presented to substantiate the reality of significant environmental and social impacts of Plantar’s eucalyptus plantations in the region. The video exchange ‘The Carbon Connection’ visually documents some of these impacts in the project area. We will refrain from repeating the arguments and evidence already provided on previous occasions to the CDM Executive Board on the matter and refer to the following references which detail the plethora of significant negative socioeconomic and environmental impacts originating from the Plantar eucalyptus plantations.</p>	<p>very beginning of the project have been adequately addressed in accordance with FSC standards and with applicable legislation. It seems that the video has overlooked these facts and referred to points that were incorrect or misleading.</p> <p>The PPs do recognize though, the existence of some NGOs, especially some foreign NGOs, which are opposed to large scale eucalyptus plantations. In a democratic context, the PPs respect those opinions but kindly disagree. Indeed, the Plantar CDM projects, including the current A/R CDM activity and its sustainable development aspects, have been widely supported by the government, local, national and international environmental leaders, NGOs and other civil society organizations, given its climate and environmental benefits as well as the potential positive effects for one of Brazil’s most important sectors. As a matter of fact, the project has recently received the award of “best implemented CDM project in Brazil”, an initiative supported by several governmental and non-governmental organizations. Also, the Brazilian Interministerial Commission on Global Climate Change, which comprises 11 ministries, has also approved the project and its several contributions to sustainable development, as mandated by the CDM Modalities and Procedures. For more information on all of the project’s sustainable development aspects, please refer to Annex 6 of the PDD.</p>	
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Comment provided in Re-GSP	Reply by Project Participants	Audit conclusion
<p><u>Additionality/Baseline:</u></p> <p>“I do not think it is fair to consider that in the absence of the project activity the iron making plants would switch iron reduction from charcoal to coal as this would be completely unfeasible. Moreover, based on information available in the international press, the Brazilian government is strongly combating deforestation of native forests for charcoal production (mainly used for the iron and steel making supply chain). Moreover, environmental regulations in Brazil are known for being strict. That means that medium and large iron making plants are supposed to use charcoal from planted forests (like the proposed project activity) anyway (regardless of CDM incentives). Thus the project is completely not additional. If this project ends up being registered this will mean that iron making supply chain will start to be compensated with carbon credits just for being in accordance with the applicable legislation. I do not think that CDM was designed to create incentive to project participants to follow the applicable environmental legislation, as they are supposed to do it anyway (according to applicable Brazilian environmental legislation)”</p> <p>(this comment was provided in addition to a procedural question on GSPs, which is considered not relevant to the project activity)</p>	<p>Indeed, environmental regulations in Brazil are quite strict. All government efforts, at state and federal levels, have resulted in legal restrictions to the use of non-renewable charcoal. That is why the alternatives left are the use of renewable charcoal from planted forests or the use of coal coke. There are no legal restrictions to the use of coal coke and there is no obligation to use renewable charcoal instead of coal coke, mostly because of economic development priorities. The use of coal instead of charcoal is not unfeasible and many companies have been switching to the former, as explained in the PDD. Coal coke will continue to play a major role in the development of the Brazilian economy.</p> <p>The project has fully complied with the additionality tool and the approved methodology, as explained in the previous answers. It has a substantial replication potential in Latin America, Asia and especially in Africa, based on south-south cooperation initiatives. Again, as explained and documented in the PDD, the deficit of renewable charcoal in Brazil and the importance of the use of the CDM as a key instrument to incentivise the use of renewable charcoal instead of coal coke is widely known and recognized by the private sector, the government and leading local and international NGOs (see also the attached documentation).</p>	<p>The comment assumes that the baseline would be the same as the project action - the implementation of plantations (due to strict environmental legislation forcing pig iron companies to reforest). Quote: “... <i>medium and large iron making plants are supposed to use charcoal from planted forests (like the proposed project activity) anyway (regardless of CDM incentives).</i>”</p> <p>As shown in the additionality analysis it was concluded that it was not obligatory nor attractive to carry out reforestations at times of project start. Barriers have not allowed plantations to materialize. Possible developments (i.e. increased obligations to reforest) may lead to other conclusions for further projects in future.</p> <p>In conclusion, the comment does not impact the audit team’s conclusion on baseline / additionality.</p>

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- C. There have also been comments on the project activity by Amda - Associação Mineira de Defesa do Ambiente and the Secretary for the Environment and Sustainable Development of the State of Minas Gerais.
- The last mentioned communication was supported by the following governmental and non-governmental organizations: State Foundation for the Environment - FEAM, State Forestry Institute - IEF, Minas Gerais Water Management Institute – IGAM , Biodiversitas Foundation , Bioatlantica Institute, Conservation International, Friends of the Earth - Amazonia Brasileira, Institute for Environmental Research of the Amazon - IPAM, Minas Gerais Defense Association - AMDA , SOS Mata Atlântica , Minas Gerais Silviculture Association - AMS, Minas Gerais Iron Industry Association - SINDIFER, Brazilian Association of Planted Forests - ABRAF, Professor José Goldemberg - University of São Paulo , Professor Sebastião Valverde - University of Viçosa.
- As these comments / letters sustained and supported the information included to the PDD and the audit conclusion it was not considered necessary to make them part of the analysis carried out above. Furthermore, these comments were submitted directly to the DOE.





Belo Horizonte, may 26, 2010

Dear TUV-SUD auditor's team and members of the Clean Development Mechanism Executive Board,

On behalf of the Minas Gerais Environmental Association, a non-governmental organization founded in 1978, non-profit, and publicly recognized by the city of Belo Horizonte and the State of Minas Gerais, I hereby highlight the importance of the "Reforestation as Renewable Source of Wood Supplies for Industrial Use in Brazil" Project, under implementation in the Center-North region of Minas Gerais State, in the fight against climate change and for the region's sustainable development.

Considering our will for conciliation between environmental preservation and economic activities that are relevant to human well being, we must criticize business misconducts which disrespect the principle of responsibility but also acknowledge the ones that respect and practice this principle which is the case of Plantar. In a democratic framework, the image of those who seek environmentally responsible development shall not be harmed by positions that are only sectary and ideological actions.

Soil and climate conditions in Brazil encourage the cultivation of planted forests and contribute to the development of many sectors of the economy. The large availability of degraded and underused land in the country can be directed for planting activities. These favorable conditions and the research and development activities driven by several companies and universities have resulted in the most advanced wood production technology in the world, with high productivity clones that enable further reductions in the demanded area for planting as well as in the use of other natural resources.

In spite of these advantages, Brazil and other developing countries, face various barriers and have suffered the an increasing lack of wood from planted, indicating a deficit of renewable and sustainable sources. In addition to economic losses, the endurance of such deficit, commonly cited as "the forestry blackout", makes the social and environmental situation of the country even worse, as this scarcity can turn into an increase in greenhouse gas emissions, due to the growing share of fossil fuels, such as coal and oil derivatives, in the Brazilian energy matrix. However, these fossil fuels can be replaced on a complementary basis, for example, by the use of renewable biomass from planted forests in boilers, heating processes, electricity generation in thermal plants and, especially, the use of renewable charcoal for the iron and steel industry.

We could witness the way CDM's additional income helped the company to become a reference and autonomous in the supply of renewable charcoal for the pig iron production, a path which, we believe, should be adopted in the country, in order to avoid emissions in the Brazilian iron and steel industry.

An important issue that contributed to form our opinion on the company was the maintenance of the "FSC (Forest Stewardship Council) - Green Seal" for more than 10 years due to its CDM project, assuring and recognizing the environmental criteria of the company's plantings by the Forest Stewardship Council.

Besides that, it is worth mentioning that the Minas Gerais State Government, through recent legislation, has elected the CDM as the major instrument to make its sustainable development policies feasible to the forestry based sector, clearly showing how Plantar's example can help to integrate CDM with public policy. In summary, the example given by the Plantar Project can be cited as an environmental reference for presenting in a practical way, the match between economical activities and environmental protection, with an important detail of reducing and removing emissions of greenhouse gases.

ASSOCIAÇÃO MINEIRA DE DEFESA DO AMBIENTE

Rua Timbiras - 17º andar - sala 1704, Lourdes, Belo Horizonte - MG - 30170.001 Fone/fax: 32910661  
<http://www.amda.org.br> Email: [atendimento@amda.org.br](mailto:atendimento@amda.org.br)

A handwritten signature in blue ink, located at the bottom right of the page. It appears to be a stylized representation of the letters 'A' and 'M'.





In this sense, the registration of the Plantar's CDM Forestry Project is extremely important for the Brazilian iron and ore industry, for the Minas Gerais State and for the country, since it may become a valuable reference to the other companies of the sector.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Maria Dalce Ricas", written over a horizontal line.

Maria Dalce Ricas

Executive Director of the Associação Mineira de Defesa do Ambiente

ASSOCIAÇÃO MINEIRA DE DEFESA DO AMBIENTE

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**GOVERNO DO ESTADO DE MINAS GERAIS**

Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável

Belo Horizonte, June 16th, 2010

To: TUV-SUD  
Westendstrasse 199  
80686 Munchen  
Germany  
C/C: Project Participants

Ref: Statement on context of the A/R CDM Project Activity "Reforestation as a renewable source of wood supplies for industrial use in Brazil", developed by Plantar and the World Bank's Prototype Carbon Fund.

To whom it may concern:

As members of the governmental and non-governmental organizations listed below, we would like to draw your attention to important aspects of the context of the A/R CDM project activity entitled "Reforestation as a renewable source of wood supplies for industrial use in Brazil", implemented by Plantar in rural areas of the State of Minas Gerais, Brazil.

It is important to make clear that the development of sound mitigation actions in the iron and steel industry is one of the main challenges within the scope of climate change and sustainable development policies in Brazil. This industry is a major economic development driver and the additional use of renewable charcoal from sustainably managed planted forests in the manufacturing process may play a major role in a future low-carbon economy. The potential climate benefits may occur through the generation of net GHG removals, resulting from new reforestation practices for the production of renewable charcoal, or through emission reductions accruing from the use of renewable charcoal as a reducing agent in the thermo-reduction process.

Nonetheless, the country has been facing an in serious deficit of renewable charcoal, which is widely known and well documented, due to a series of obstacles, ranging from the lack of sustainable corporate cultures to the lack of adequate regulatory schemes, proper policies and debt-funding structures. Moreover, one of the most pressing problems in the context of this industry was the use of non-renewable charcoal, extracted from native forests, which also resulted in other serious environmental losses. However, as legislation has severely restricted the use of non-renewable charcoal, iron and steel producers are left with very little alternatives other than the use of coal coke, given the still prevailing scarcity of renewable charcoal from dedicated and sustainable planted forests.

Aware of the above mentioned context, we recognize that additional incentives such as CDM can play a major role in the establishment of new and sustainably managed planted forests to supply renewable charcoal for the iron and steel industry, with a substantial potential to reduce GHG emissions and generate net GHG removals, in the same way they helped Plantar becoming the first company to achieve self-sufficiency in renewable charcoal. The need to overcome the above mentioned obstacles and to create additional incentives to tackle the deficit of renewable charcoal is recognized by several state and federal government bodies and civil society organizations, especially if one considers that the production of iron and steel in Brazil is expected to double within the next years. Such an increase will be almost totally based on coal coke, a global commodity, with substantially lower transaction costs, which does not face the seven-year harvesting gap inherent to the use of renewable charcoal.

As important as the potential climate benefit created by the use of renewable charcoal is the way the required planted forests are managed, including its social and environmental implications. Depending on the adopted management practices, the potential climate benefits may be



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overwhelmed by negative environmental impacts. Although, a balanced analysis on the sustainability aspects of the renewable charcoal supply chain must also be weighed against the sustainability aspects of the coal coke production chain, we support strict social-environmental criteria for the establishment and maintenance of the planted forests, including biodiversity aspects, which can result in a major contribution to sustainable development.

One of the most appropriate ways of ensuring the fulfillment of such criteria is the adoption of independent forest certification schemes. We understand that all plantation areas, covered by the A/R CDM project activity at stake, are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC), a respected NGO which we all support. In this sense, we are confident that any relevant social or environmental issue related with the project's reforestation practices has been adequately addressed and, most importantly, is subject to a continuous improvement policy under strict accountability mechanisms.

To conclude, we wish to stress our support to the use of the CDM for the promotion of the additional use of renewable charcoal from sustainably planted forests in Brazil, since it has a substantial potential of being integrated with climate change and sustainable development policies, reinforcing the Kyoto Protocol's environmental integrity. In this context, the pioneer case of Plantar is a good example.

Truly yours,

**José Carlos Carvalho**

Secretary for the Environment and Sustainable Development of Minas Gerais - SEMAD

With the support of:

State Foundation for the Environment - FEAM  
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