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Validation Report

The World Bank

VALIDATION OF THE CDM-PROJECT:
REFORESTATION ON DEGRADED LANDS IN NORTH-
WEST GUANGXI

Report No. 845821

17 March 2010

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

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Subject: Validation of a CDM Project

Accredited TÜV SÜD Unit:

TÜV SÜD Industrie Service GmbH
Certification Body "climate and energy"
Westendstr. 199, 80686 Munich, Germany

TÜV SÜD Contract Partner:

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199, 80686 Munich, Germany

Project Participants:

Guangxi Longlin Forestry Development Company Ltd.

International Bank for Reconstruction and Development (IBRD) as a Trustee of the Bio Carbon Fund

Kingdom of Spain (as Party to the Kyoto Protocol)

Project Site(s):

The project is located in the counties Longlin, Lingyun and Tianlin in the Autonomous Region of Guangxi, China, covering 8,617.3 ha.

(details included to digital boundary file)

Project Title: Reforestation on Degraded Lands in Northwest Guangxi

Applied Methodology / Version:

AR-ACM0001 version 03

Scope:

14

Technical Areas: 14.2 and 14.3

First PDD Version:

Date of issuance: 12-05-2008

Version No.: 01

Starting Date of GSP 11-06-2008

Final PDD version:

Date of issuance: 09-03-2010

Version No.: 7.0

Estimated Annual Emission Reduction:

87,308 t CO₂-e

Assessment Team Leader:

Martin Schröder

Trainees:

Thorsten Späth

Sebastian Hetsch

Veto Person:

Robert Scharpenberg

Certification Body responsible:

Thomas Kleiser

Summary of the Validation Opinion:

- ☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD is recommending the project for registration by the CDM Executive Board if 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

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

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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 on Degraded Lands in Northwest Guangxi".

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 versions 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 two 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 sub-divided. The lowest level constitutes a checklist question / criterion.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated cri-</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (✓), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team has identified a need for further clarification. Forward action request to highlight issues related to</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented in the documentation.</i>

		<i>terion. Any Re-request has to be substantiated within this column</i>	<i>project implementation that requires review during the first verification.</i>	
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Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	Ref. to table 1	Summary of project owner response	Validation team conclusion
<i>If the conclusions from table 1 are a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue is explained.</i>	<i>The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the discussion on and revision to project documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final PDD".</i>

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

2.1 Appointment of the Assessment Team

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

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- 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	☑	☑	☑
Thorsten Späth	T	☑		
Sebastian Hetsch	T	☑		

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.

Sebastian Hetsch is a forestry expert and GHG auditor trainee appointed by the certification body "climate and energy" of TÜV SÜD. Mr Hetsch holds a university degree in forest science and he passed extensive training on auditing of GHG projects. Before joining TÜV SÜD he worked for several years in the field of international forest policy.

Thorsten Späth is a forestry expert and GHG auditor trainee appointed by the certification body "climate and energy" of TÜV SÜD. Mr Späth holds a Masters degree in forestry and passed successfully internal training schemes in the field of auditing. While focusing on forest conservation, he gathered more than eight years working experience in the area of forest administration and the management of forestry projects. He has successfully taken part in the training program for GHG auditors developed by TÜV SÜD.

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

Between 6 and 11 of July 2008 TÜV SÜD performed interviews 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
Liu Zheng Chun	Secretary of Communist Party of China Sub-branch
Liu Jin	The World Bank
Wu Zhimin	Guangxi Forestry Bureau Project Office
Li Zhishuang	Guangxi Long Lin County Forestry Development Co. Ltd.
Li Fufu	Guangxi Forestry Bureau Project Office
Mo Zhuping	Guangxi Forestry Inventory & Designing Institute
Xiaoquan Zhang	Chinese Academy of Forestry
He Sanzhong	Project Management Office of Guangxi

Furthermore, the audit team carried out interviews with community members during the actual site visit campaign.

2.4 Further cross-check

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

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which 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 were given are documented in more detail in the validation protocol in Annex 1.

The final PDD version submitted in March 2010 served as the basis for the final assessment presented. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM: reduction of anthropogenic GHG emissions and contribution to sustainable development.

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 by Mr. Robert Scharpenberg, who is an appointed Assessment Team Leader of the certification body "climate and energy", with the relevant expertise in the forestry scope.

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) Guangxi Longlin Forestry Development Company Ltd., (ii) the International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund, and (iii) Spain as Party to the Kyoto Protocol. The host Party China and further participating party Spain both meet the requirements to participate in the CDM.

The DNA of China issued a LoA (IRL 30) in December 2008 authorizing Guangxi Longlin Forestry Development Company Ltd as a project participant. The DNA of Spain also issued a LoA (IRL 31) on 14 May 2009, authorizing the International Bank for Reconstruction and Development as Trustee of the BioCarbon Fund as a project participant. TÜV SÜD received these letters and considers the provided letters authentic.

The Chinese LoA was further double-checked with the CDM project webpage sponsored by the Department of Climate Change, NDRC (<http://cdm.ccchina.gov.cn>), which further confirms the approval of this CDM project. The authenticity of the Spanish LoA was confirmed through direct and personal communication of the audit team with the Spanish DNA.

Both letters were issued by the respective Party's DNA: the National Development and Reform Commission of the People's Republic of China, and the "Ministerio de Medio Ambiente y Medio Rural y Marino" of Spain. The LoAs do not refer to a specific version of the PDD or validation report. The corresponding references included in the LoA, PDD and validation report, are consistent.

TÜV SÜD confirms that both letters refer to the precise proposed CDM project activity title in line with the title in the PDD "Reforestation on Degraded Lands in Northwest Guangxi".

Both letters also indicate that the participating Parties are Parties to the Kyoto Protocol, and that the participation in the "Reforestation on Degraded Lands in Northwest Guangxi" project is voluntary. The Chinese LoA also confirms that the proposed CDM project activity contributes to the sustainable development of China (host country).

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

3.2 Participation

The participants of the project activity were approved by the corresponding Parties, which is confirmed with the issued LoAs. The means of validation used are the same as described in section 3.1, specifically in regard to the approval process of the project activity.

3.3 Project design document

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

3.4 Project description

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

The project consists of reforestations on 8,671.3 ha in the Autonomous Region of Guangxi Zhuang, P.R. China. The project area is distributed in 206 parcels in the three counties of the region: Longlin, Lingyun and Tianlin County (IRL 8). Selected species are different native tree species as well as Eucalyptus (IRL 2, 8).

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

- Review of data and information (Annex 2). This was verified with other independent sources if available.
- An on-site visit has been performed and relevant stakeholder and personnel with knowledge of the project were interviewed (IRL 4). 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-ACM0001 version 03 has been demonstrated. The GSP was started with a PDD according to the methodology AR-ACM0001 version number 01. In the course of the validation, the PDD was updated to version 03 of the methodology, due to the expiration of the former version.

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 through physical site inspection, interviews and secondary documents received on the design of the project.

The **project area** covers a total of 8,617.3 ha distributed in 206 parcels. The geographical project boundary as defined in the field was found to be consistent with the indications in the PDD and the provided digital boundary files (IRL 8).

In the field the boundary delineation was taken with adequate precision based on topographic studies on property limits.

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 (IRL 8)
- Maps of project boundary as also included to the final PDD (IRL 2).

The boundaries were validated during the validation process using standard audit techniques; details of all observations are presented in the Annex 1. TÜV SÜD confirms that the identified boundaries as documented in the PDD and the attached digital boundary files (IRL 8) are adequately defined for the project activity.

In regard to **control over the project area**, it was confirmed that the project participant has installed contractual relations with the land holders (IRL 9). The corresponding documentation was reviewed and found to be according to the legal system of the host country. Thus, control over the project area by the PP is considered to be established. As the project participants are however not the owner of the land, the access to land and carbon rights is included into the monitoring plan to ensure continued validity of the contractual relations between the project participants and the land owners.

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. Apart from above and below ground biomass, soil organic carbon is accounted per default approach; corresponding requirements are met.

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

- Maps of land use / land cover in 1989 (IRL 6);
- A baseline survey conducted before project start (IRL 13);
- A survey with local farmers and communities (IRL 7);
- Extensive field visits of the audit team (IRL 32).

Vegetation at the time of the project start was assessed by the PP (IRL 13) and found to be below the forest threshold according to the DNA definition. It was found that the vegetation prior to project start would not have surpassed this threshold at maturity without the project activity (IRL 13). This assessment was reviewed by the audit team during the onsite visits and it was confirmed that no forest was on the project area before project start (IRL 32).

No forest had been on the project area on 31 December 1989, as documented through interviews (IRL 7) and land use / land cover maps from 1989 (IRL 6). The documents were reviewed by the audit team. Eligibility was also verified during interviews with local stakeholders on site, who confirmed that no forest had been on the project area since 1989 (IRL 4).

3.5.3 Baseline identification

The PDD identifies the baseline scenario as “continuation of current barren lands with grazing, cultivation, burning and biomass collection for fuel”. This baseline scenario was determined by using the A/R Methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities” (Version 01) as required by the methodology.

The information presented in the PDD was validated by a document review, the on-site visit of the project area (IRL 32) and finally by cross-checking the information presented with similar relevant projects and literature. The sources referenced in the PDD have been quoted correctly. The information was cross-checked based on verifiable and credible sources, such as afforestation statistics of Longlin, Lingyun and Tianlin County (IRL 27).

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

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

In regard to item 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 assessed the calculations of baseline stocks and removals, project emissions, leakage and the expected net anthropogenic GHG removals by sinks. Corresponding calculations were carried out based on Excel calculation spreadsheets (IRL 29). Correctness of calculations can be confirmed as they were replicated by the audit team using the information provided.

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

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

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

3.5.5 Baseline stocks and greenhouse gas removals by sinks

The stratification process differentiated four baseline strata based on the pre-existing vegetation.

Baseline stocks were estimated and considered for all relevant types of vegetation. The corresponding baseline study indicates baseline carbon stocks of 36,703 t CO₂-eq for the entire project area (IRL 29). For the calculations values for Biomass Expansion Factors, Root-to-Shoot Ratio and Wood Density were taken from a national database developed by the Chinese “Institute of Forest Ecology, Environment and Protection” (IRL 45). The choice of data sources is considered adequate. Good practice in regard to forest inventory was followed in the context of the baseline assessment. Baseline carbon stocks were conservatively discounted in the estimation of actual net GHG removals by sinks, although not required by the respective tool.

The baseline stock changes are based on growth curves developed from local forest inventory (IRL 45). The baseline GHG emission reduction is calculated to be in total 15,394 t CO₂-e accumulated over the 20-year crediting period (annual values for baseline GHG emission reduction range from 374 – 1,037 t CO₂-e) (IRL 29). Baseline carbon stock changes are conservatively discounted in the estimations of net GHG removals by sinks.

The parameters and equations presented in the PDD and further documentation were cross-checked and compared with the requirements and guidelines of the applied methodology and respective tools. The review of the equation included all formulae presented in the PDD and the digital calculation files.

In summary the calculation of the baseline stocks and GHG removals were reviewed and cross-checked and are considered correct.

3.5.6 Project emissions

The methodology considers emissions from biomass burn (non-CO₂). This source was discussed in the PDD and respectively in the audit process. In line with the design of this project, no biomass burning for site preparation will occur, which is considered credible, as corresponding confirmations in the PDD have been reconfirmed with the local forest management operators. However, biomass loss due to fire is included as monitoring parameter in order to be able to calculate potential emissions ex-post in case they would appear (e.g. from unintentional forest fires).

Pre-existing vegetation is expected to be outgrown by the newly established forests without felling or clearing of existing vegetation (besides the preparation of planting plots). The relevant carbon stock was conservatively discounted (de facto as emissions) as described above in section 3.5.5 and in compliance with the respective tool for the “Estimation of GHG emissions due to clearing, burning and decay of existing vegetation attributable to a CDM A/R project activity”.

3.5.7 Leakage

Leakage was estimated for all leakage sources as foreseen by the methodology. It was demonstrated that emissions from leakage of activity displacement (pre-project grazing and fuelwood collection) is zero.

The tool “Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity” was applied. It was confirmed that in case where displacement of animals present on the project area occurred, it was to other areas under control of the project participants. These areas do still have the capacity to absorb the displaced animals. This has been re-confirmed through interviews with local landholder (IRL 7). Corresponding questionnaires and responses have been reviewed by the audit team and confirmed during the onsite visit (IRL 4, 32). Therefore, leakage is considered zero, but included in the monitoring as required by the tool.

3.5.8 Net anthropogenic greenhouse gas removals by sinks

The estimates on the expected anthropogenic removals which are likely to be achieved by the envisioned reforestations under the project scenario are based on values from a local database developed by the Institute of Forest Ecology, Environment and Protection (IRL 45). This database also contains information on Root-to-Shoot ratio, Biomass Expansion Factor and Wood Density for the different tree species used. For Carbon Fraction the IPCC default value of 0.5 was applied. The sources were reviewed and confirmed during the onsite visit and are consistent with data from international database such as IPCC GPG LULUCF (IRL 33).

In line with the methodology version 03, the default value for increase of soil organic carbon of 0.5 t C/ha*yr is applied for 20 years.

Over the crediting period of 20 years, total net anthropogenic removals of 1,746,158 t CO₂-e are expected (IRL 29). The calculations of the net anthropogenic GHG removals were carried out with MS Excel based spreadsheets (IRL 29). All calculations are in compliance with the applied AR-CDM methodology. The steps of the calculations are fully traceable and adequate for the project conditions. The calculations have been assessed, found correct and in line with methodology requirements (IRL 2, 3).

3.6 Additionality

The additionality of the project has been presented in the PDD using the A/R methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities” (Version 01). In this project both, a financial as well as a barrier analysis was conducted to proof additionality.

The analyses presented in the PDD were first assessed based on a document review. Furthermore, the additionality analyses were discussed onsite with the project team of Forestry Farm as project participant. Relevant documents were reviewed on-site and interviews on this matter were carried out with stakeholders (IRL 4). Finally the data, rationales, assumptions, justifications and documentation provided were checked using local knowledge and sectoral and financial expertise. The information provided by the PP was further cross-checked by other independent information such as afforestation statistics of Longlin, Lingyun and Tianlin County (IRL 27). Based on these validation steps TÜV SÜD confirms that the documentation assessed is appropriate for this project. Further analysis of the additionality is summarized in the sections below (3.6.1 – 3.6.5).

In essence, the project is considered additional as degraded lands are reforested which otherwise would have remained without forest cover - among others due to unavailability of funding for such reforestation activities.

3.6.1 Start date and prior consideration of the CDM

The project activity started on 1 January 2008. The starting date reflects the start of actual project implementation (planting) (IRL 17). In order to confirm the starting date the assessment team reviewed this document. The audit team visited furthermore first plantings during the on-site visit (IRL 32). The age and condition of the planted trees was consistent with the planting records.

The CDM consideration prior to project start was documented through agreements on project implementation with the World Bank, dated 17 January 2007 (IRL 22, 25). The project therefore complies with the requirement of prior CDM consideration.

3.6.2 Identifications of alternatives

Relevant alternatives (baseline scenario) were identified in the context of the additionality test: (i) Continuation of current barren lands with grazing, cultivation, burning and biomass collection for fuel and (ii) implementation of project as an assisted natural regeneration without being registered as an A/R CDM project activity.

The list of alternatives to the project is presented in the PDD and includes the project activity undertaken without being registered as CDM project. The remaining alternative considers all plausible scenarios taking into account all relevant local and sectoral situations. Hence the list of alternatives is considered to be complete.

3.6.3 Investment analysis

A financial analysis as well as a barrier analysis was carried out. In regard to the financial analysis, the PPs opted for a benchmark analysis, showing that the financial returns of the proposed project are insufficient to justify the investment without CDM component.

The applied benchmark analysis utilizes 8.0 % benchmark. This is sustained by corresponding National Development and Reform Commission (NDRC) publications (IRL 34). The value of 8% is conservative, as in a similar project a required rate of return of 12% was applied. Financial Internal Return of Investment was calculated based on standardized spreadsheet templates as provided by the World Bank (IRL 35). An IRR of 4.52% without carbon finance and 9.11% with carbon finance has been calculated, while considering a price of 5.00 US / tCER and carbon revenues over 20 years. The tCER price is considered within the corridor discussed in publications among others by World Bank and is therefore accepted.

The assumed establishment and operation costs incorporated to the calculations (table C.6 and C.7) have been sustained by local data from the Guangxi Forestry Bureau (IRL 43). The same applies to typical revenues assumed for reforestation activities. Input data was also confirmed during interviews at onsite visit.

The sensitivity analysis carried out does not impact the overall conclusion that the project is not financially attractive without the consideration of carbon finance. With $\pm 10\%$ variations of the most important factors it is shown that the IRR without carbon will remain below the benchmark.

In general the audit team concludes that the financial analysis has been carried out appropriately - and that this analysis sustains the conclusions of the barrier analysis.

3.6.4 Barrier analysis

In addition to the investment analysis also used the barrier analysis in order to further sustain additionality of the project. 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 main barrier preventing the implementation of the project without carbon credits is the **investment barrier**. Due to the long-term period of repayment and low expected revenue rates, banks were not willing to offer funds required to conduct the project activity. Further, many farmers in the province live below provincial poverty level and would not be able to finance initial costs of plantation on their own. The investment barrier was assessed against credible documents such as:

- Confirmations from local banks in regard to non-availability of long term loans (suitable for forestry projects) in the region (IRL 36, 37, 38);
- Socio-economic profile in the project region (IRL 39).

It was confirmed that there was no alternative financing available from the PPs for the project activity and that it has become recently available through the project and its carbon component. Thus, the investment barrier prohibits alternative (ii), implementation of project as an assisted natural regeneration without being registered as an A/R CDM project activity.

Based on the socioeconomic information on local farmers included to the PDD and the reference on income levels quoted above, it is credible that the local communities would not have access to relevant funding for such reforestations activities. The project set-up as described in the PDD allows the local communities to access funding and assistance for reforestations via an implementation scheme established by the PP and associated NGOs.

Further, the **technological barrier** was assessed. Local farmer do not have the technical skills to produce tree seedlings and successful implement reforestation on those lands, which further strengthen the barriers for the project. The proposed project allows the local communities to access technical knowledge for the successful implementation of the scheduled reforestation activities. The PP has this expertise and has scheduled to channel this to the farmers jointly with further cooperation partners in the context of the project. This alleviates the technological barrier.

The result of this assessment shows clearly that the barriers presented in the PDD can be considered real. These barriers prevent the project activity from being implemented while it would not prevent at least the baseline of the project. This was confirmed based on the documentation review, interviews and local and sectoral expertise of the assessment team. The latter was i.e. confirmed by the interviewed stakeholders (IRL 4).

3.6.5 Common practice analysis

The region for the common practice analysis was defined as the geographical area of the autonomous region of Guangxi where the reforestations will occur. The assessment team reviewed the approach presented in the PDD and can confirm that relevant parameters such as location, ecological conditions, economical situation, and development were taken into account in order to define the region. Therefore, the presented approach can be considered appropriate for the common practice analysis.

Some afforestation has been carried out in the region (IRL 4, 27). However, these activities were mainly plantations of Eucalyptus on areas with good site conditions and good accessibility, which is both not the case in the project area. Afforestation statistics of the counties Longlin,

Lingyun and Tianlin further sustain that reforestation on degraded sites is not common practice in the region (IRL 27).

Therefore, it can be confirmed that the proposed CDM activity is not a common practice in the defined region.

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 checked all 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. Access to land and carbon rights was included as monitoring parameter to ensure continued control over the project area. Monitoring of biomass loss due to forest fire was included in the monitoring plan (section E.4.1) to be able to account for potential emissions. In compliance with the methodological tool, further parameters regarding project emissions are listed in section E.4.2. Also the required parameters on monitoring of leakage as per respective tool are included in the monitoring plan of the PDD.

The monitoring plan was included to the project documentation. The boundary and forest management monitoring was defined specifically for the project context.

The procedures were reviewed by the assessment team on paper and through 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. The PPs use Standard Operating Procedures towards carbon monitoring in order to ensure the collection of reliable field data (IRL 42).

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 Sustainable development

The LoA of the Host Country China clearly presents a statement that the project contributes to the sustainable development of the Host Party.

3.9 Local stakeholder consultation

The stakeholder process was carried out in line with PDD guidance and documented appropriately. In July 2007, stakeholders were invited to a Participatory Rural Assessment (PRA) to discuss and provide comments (IRL 24).

The assessment team reviewed the documentation in order to validate the inclusion of relevant stakeholders. Using the local expertise, it is confirmed that the communication method used to invite stakeholders is considered appropriate. The summary of comments presented in the PDD was cross checked with the documentation of the stakeholder consultation and confirmed with interviews with stakeholders of the community during the onsite visit and it is found to be com-

plete. The relevant comments presented by the local stakeholders were taken into due account by the PP, the same was cross-checked with the information obtained during the interviews. Hence the local stakeholder consultation was adequately performed according to the CDM requirements.

3.10 Environmental and socio-economic impacts

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

An Environmental Impact Assessment was conducted in 2005 under the umbrella of the Guangxi Integrated Forestry Development and Conservation Project (GIFDCP) (IRL 40). In 2008 the Guangxi Environment Agency issued a document stating that the project activity is within the scope of previously issued and approved EIA (IRL 41). Overall, no negative environmental impacts are anticipated. Positive effects on biodiversity and protection against soil erosion can be expected.

Also a socio-economic analysis was carried out (IRL 7, 11), concluding that no significant negative impacts are expected, but several positive effects such as employment and income generation, increased (fuel) wood availability and technical training for farmers.

TÜV SÜD reviewed the documents stated above and conducted interviews with relevant stakeholders. The audit team concluded that no negative environmental and social impacts are expected.

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:

webpage: http://cdm.unfccc.int/Projects/Validation/DB/YEKJK8B2JTYOB4MYRIPZ6LL9V40C18/view.html	
Starting date of the global stakeholder consultation process: 11 Jun - 25 Jul 08	
Comment submitted by: -	Issues raised: -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity “Reforestation on Degraded Lands in Northwest Guangxi”.

Standard auditing techniques were used for the validation of the project. Methodology-specific customized checklists and protocol for the project were 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 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 recommends the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. 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 was 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, 17 March 2010

Munich, 17 March 2010



Thomas Kleiser

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

Martin Schröder

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TÜV

Annex 1: Validation Protocol

Table 1 Requirement Checklist AR-ACM0001 version 03

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of the Project Activity					
A.1 Title of the project activity					
Does the used project title clearly enable to identify the unique CDM activity?	2	DR	Yes, the project title indicates brief project activity and location of project activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Are there any indication concerning the revision number and the date of the revision?	2	DR	The version number and date is indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is this consistent with the time line of the project's history?	2	DR	Yes, this is considered consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2 Description of the project activity					
Has the project been described in terms of purpose, how the project is undertaken, and the project proponent's view of the project's contribution to sustainable development? (indication on IAS or GMOs in large scale projects)	2, 19	DR, I	The project purpose is described and specific objectives are named. A description of how the project is undertaken exists (project area, parties involved, tree species, time horizon, expected tCER). The sustainability of the project is mentioned in biodiversity conservation and soil erosion control by all involved parties as well as income generation for farmers. No IAS and GMO foreseen for planting. Eucalyptus is not considered IAS, as it does not spread naturally.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3 Project participants					
Have the Parties and project participants participating in the project been listed in the table as required?	2, 10	DR, I	The table is completed. Parties involved are Peoples Republic of China and the Government of Spain. Participants are Guangxi Longling Forestry Development Company Ltd. (on behalf of China) and the International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund (on behalf of Spain).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl						
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, 30, 31	DR, I	Both LoAs, from China and Spain were received during the validation process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Do all participating Parties fulfil the participation requirements as follows: - Ratification of the Kyoto Protocol - Designated a National Authority - Host Party DNA communicated minimum values for forest definition	2	DR	<div>The requirements are fulfilled. See: http://cdm.unfccc.int/DNA/index.html</div> <table><tr><td>Single minimum tree crown cover value between 10 and 30 per cent</td><td>A single minimum land area value between 0,05 and 1 hectare</td><td>A single minimum tree height value between 2 and 5 metres</td></tr><tr><td>20</td><td>0,067</td><td>2</td></tr></table>	Single minimum tree crown cover value between 10 and 30 per cent	A single minimum land area value between 0,05 and 1 hectare	A single minimum tree height value between 2 and 5 metres	20	0,067	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Single minimum tree crown cover value between 10 and 30 per cent	A single minimum land area value between 0,05 and 1 hectare	A single minimum tree height value between 2 and 5 metres									
20	0,067	2									
A.4 Description of location and boundaries of the A/R CDM project activity											
A.4.1 Has the location of the project including Host Party, Region/State/Province and City/town/community been defined?	2, 8	DR	<div>Definition of all locations is done in detail. A table with the names of the townships and villages is provided with coordinate indications. The indications in the table A.2 of PDD are ranges (in maximum extensions). Projection used is Beijing 54. Data was retrieved from forest inventory map.</div> <div><u>Corrective Action Request No 1</u> For table A-2, the coordinate system and projection used shall be indicated. It shall be indicated if these are two or four points, and how they have been chosen in order to describe and identify the project areas.</div>	CAR 1	<input checked="" type="checkbox"/>						
A.4.2 Has an appropriately detailed geographic delineation of the project boundary including a unique identifier been included?	2, 8	DR, I	<div>Maps that indicate each project area are available in the PDD. During the onsite visit it was clarified that the boundary was defined in following steps:</div> <div><div>1. Maps were taken to field (landform map in 1:10.0000) and boundaries were drawn (team of Ms Mo / GIS lab)</div><div>2. Maps taken to GIS and scanned.</div></div>	CAR 2	<input checked="" type="checkbox"/>						



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>3. Definition of areas and size</p> <p>4. Partial recheck of boundary in context baseline study.</p> <p>Compare also Annex 3.</p> <p>The onsite visit confirmed that the boundary was defined with sufficient accuracy in this manner for validation.</p> <p>The boundary as defined in this process was the basis for the eligibility checks and the confirmation of land access (see below).</p> <p>Changes in boundary outline will be monitored according to the MP. This is considered necessary to detect if some areas are not reforested (i.e. due to failed reforestation) and also to reflect on any possible distortion in the area assessment due to the relevance of slope in the boundary definition process as described above.</p> <p><u>Corrective Action Request No 2</u></p> <p>In order to allow clear identification of sites (also as basis for verification) include maps of the project boundaries with the identification number for each discrete area of land on the map while insuring consistency with Annex 3-1.</p> <p>In any map, please include coordinate system and scale in order to allow for clear identification. An adequate scale should be chosen in order to allow identification of boundaries (i.e 10-25.000)</p>		
AR-ACM0001, section II.1					
Is the project boundary under control of the participants geographically delineated?	2, 8	DR, I, FV	Boundary has been delineated.	CAR2	☑
Is it justified, that during the crediting period, each discrete area of land is expected to be subject to an afforestation or reforestation project activity under the control of the project participants?	2, 17	DR, I	Reforestation of the entire area is foreseen. Details on planting plan in section C.4.	☑	☑



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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, 16, 17	DR, I	<p>Environmental conditions are described for each project county with:</p> <p><u>Climate in Tianlin County:</u> mean annual temperature is 16.9-21.6 °C, mean precipitation is 1,000-1,600 mm.</p> <p><u>Climate in Longlin County:</u> mean annual temperature is 19.1 °C, mean annual evaporation is 1,495.5 mm,</p> <p><u>Climate in Linyun County:</u> mean annual temperature is 20.5 °C, mean annual precipitation is 1,603.5 mm,</p> <p>Two river systems inside the project area with Youjiang and Nanpanjiang rivers.</p> <p>Most dominate soils of the project area are yellow-red and red soils.</p> <p>Main natural vegetation types major vegetation zones are subtropical coniferous forest, subtropical deciduous broadleaf forest, subtropical evergreen and deciduous broadleaf mixed forest, subtropical evergreen deciduous forest and seasonal rain forest.</p> <p>Currently the project lands are mostly degraded under-productive lands covered by shrubs and herbaceous plants.</p> <p>Soil and site assessment was compiled in line with baseline study (Annex 3-3 includes description of site classes for summary).</p> <p>The study was carried out with forestry standards in place in China for this purpose. A transact approach was employed for the baseline study.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.5.2 Have any rare or endangered species been defined as present?	2, 14, 15, 16	DR, I	<p>No first class national protected or endangered species or IUCN species was found, but 5 second class national protected animals and 26 Guangxi protected animals are present.</p> <p>Biodiversity Survey Report has been elaborated. This Report indicates the methodology of site assessments.</p> <p>This biodiversity census has impacted the further de-</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			sign. The adaptation of project design and the choice of species to the conservation status of the area are considered best practice.		
A.5.3 Have the species and varieties to be grown been adequately described?	2	DR, I	<p>A list of the tree species for reforestation is given based on the preference of farmers and based on the baseline study:</p> <ul style="list-style-type: none"> Chinese fir: <i>Cunninghamia lanceolata</i>; <i>Taiwania flous</i> Masson pine: <i>Pinus massoniana</i>; Shiny-bark Birch: <i>Betula luminifera</i> H. Winkl. Sweetgum: <i>Liquidambar formosana</i> Hance; Schima: <i>Schimawallichii</i> Choisy; <i>Choerospondias axillaris</i> (Roxb.) Burtt et <i>Eucalyptus</i> sp. <p>All species are native to the project area except Eucalyptus, which was introduced to China 100 years ago and did not show invasive characteristics. No GMO or invasive species will be used. These species will be intermixed in planting.</p> <p>Based on these species, different stand models (and corresponding management) were defined (Y1-8; section A.5.4)</p>	☑	☑
A.5.4 Has the technology to be employed (including environmentally safe and sustainable/renewable technologies) been adequately described?	2, 17, 18, 19, 20, 46-55	DR, I	<p>The following regulations were mentioned to be followed:</p> <ul style="list-style-type: none"> State Technical Regulations for Afforestation/Reforestation: GB/T 15776-2006; State Technical Regulations for Establishing Environmental Service Forests: GB/T 18337.1-2001, GB/T 18337.2-2001, GB/T 18337.3-2001; State Technical Regulations for Designing of Afforestation/Reforestation: LY/T 1607-2003; State Technical Regulations for Forest Management: GB/T 15781-1995; 	☑	☑



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<ul style="list-style-type: none"> Standards for Seedling Qualification: GB 6000-1999; Technical Standard for Seedling Breeding: GB/T 6001-1985; Technical Standard for Container Seedling Breeding: LY1000-1991. Seed Certification Regulations (GB2772-1999) Technical regulations for forest harvest and regeneration Technical Regulations for Chinese fir plantation in Guangxi Technical Regulations for masson pine plantation in Guangxi Technical Regulations for birch plantation in Guangxi <p>Most important is the State Technical Regulation for Afforestation / Reforestation (national) and Standard for Seedling Qualification.</p> <p>Administration offices (Forestry Bureau and its forestry stations) are envisioned to support the training in order to assure for implementation in line Regulations.</p> <p>Seeds are intended to be provided by official source.</p> <p>The technology applied is described with:</p> <p>Seedling production, site preparation, planting plan (2008, 2009, 2010), fertilization, tree density, thinning and harvesting plan.</p> <p>Eight reforestation models are described. A table (Annex 3-1) indicates which project site is assigned to which model.</p> <p>Also in light of the further forestry activities of the participant and its general capacities, it is considered that the installation and management of the plantations can be expected as described in the PDD.</p>		
A.5.5 Has the know-how with specifications of whether it will be transferred to host Parties been adequately described?	2	DR, I	There will be no transfer of know-how to the host party, as the technical expertise is provided from a Chinese	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			company.		
A.5.6 Has the proposed measures to be implemented to minimize potential leakage been adequately described?	2	DR, I	<p>Potential leakage associated with the proposed A/R CDM project activity have been described: Potential sources of leakage could be the displacement of grazing activity, which is assessed in the section D.2 on leakage.</p> <p>It is indicated in the PDD, that no further displacement of people and activities is expected of these lands.</p> <p><i>See sections below on leakage.</i></p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.6 Legal title to the land, land tenure and rights to issued tCERs/ICERs					
Have details of the legal title to the land, land tenure and rights to issued tCERs/ICERs been described (for each discrete site)?	2, 9	DR, I	<p>Two different types of land title are existent for the project area: state owned and village owned.</p> <p>The land is owned mostly collectively by the village.</p> <p>The forestry farm (Project Participant) is envisioned to sign the contracts on the project implementation and carbon rights.</p> <p>Besides the areas actually in ownership and direct control of the Participant (Type 1), entities to which contractual relations are maintained are: Three forestry farms and one forestry company (Type 2). These are then sourcing project areas.</p> <p>The Project participant also maintains direct relations to villagers (Type 3).</p> <p>Completion of contractual relations to villagers on project implementation not completed for all lands at the state of onsite visit. The contractual relationship with the land owners needs to be monitored over time.</p> <p><u>Corrective Action Request No 3</u></p> <p>Compliance with UNFCCC requirements in regard to project area under control at validation shall be demonstrated, documented in the PDD and sustained with further evidence.</p> <p><u>Corrective Action Request No 4</u></p>	CAR 3 and 4	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			The monitoring of the access to land and carbon rights via contracts shall be included to the monitoring plan.		
A.7 Assessment of the eligibility of lands					
Has the latest version of the AR eligibility procedure been applied?	2	DR, I	Yes, the latest version of "Procedures to demonstrate the eligibility of lands for afforestation and reforestation project activities (Version 01)" has been applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 6, 7, 13	DR, I	<p>In the PDD it is included that</p> <p>a) Land use maps indicate that land within the project boundary is not forest at project start and after Dec. 31, 1989.</p> <p>b) the activity is a reforestation activity as has been no forest at least since 31 Dec 1989.</p> <p>The onsite visit included abundant site visits of the reforestation sites in all included counties have been carried out.</p> <p>Through the site visits it was confirmed that only areas have been included which comply with eligibility requirements at project start.</p> <p>No indications on previously existing forests were found. Existence of baseline vegetation was confirmed.</p> <p>The reviewed historic land use maps in scale 1:100.000 dated 1989 have been the main source to underline that these areas have been unstocked since end of 1989. The scale is considered sufficient, also due to the fact that the surrounding land use types are mostly non-forest.</p> <p><u>Corrective Action Request No 5</u></p> <p>The maps included on historic land use in section A.7 of PDD require English labelling.</p>	CAR 5	<input checked="" type="checkbox"/>
Has the assessment of the eligibility of the land been adequately described?	2	DR, I, FV	Yes, description is complete. Maps from 1989 and 1999 were the basis for pre-selection of project lands.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.8 Approach for addressing non-permanence					



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Has the approach to address non-permanence been specified (tCER, ICER)?	2	DR	The issuance of tCER for the net anthropogenic GHG removals by sinks achieved by the proposed A/R CDM project activity is chosen.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.9 Estimated amount of net anthropogenic GHG removals by sinks					
Has the table on estimated net anthropogenic removals over the chosen crediting period been completed?	2	DR	The corresponding table has been completed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.10 Public Funding					
Is indication on public funding (from Annex I countries) included to the PDD?	2	DR, IV	<p>In line with the indications in the PDD it was analyzed during the onsite visit:</p> <ol style="list-style-type: none"> 1. The establishment cost will be provided through loans from the World Bank / International Bank of Reconstruction and Development under the Guangxi Integrated Forestry Development and Conservation Project, and some counterpart funds from local government and the participants themselves. 2. The operating and maintenance cost will be covered by short-term loans from local commercial banks and participants, as well as the carbon income. <p>Thus, the project activity will be based on mixed funding from a WB/ IBRD loans and some local sources, as well as some commercial loans and carbon finance for operation.</p> <p>It was underlined that the relevant World Bank project has the goal to establish 200.000 ha of timber plantation on loan basis.</p> <p><u>Clarification Request No 1</u></p> <p>In order to confirm that there is no public funding from Annex I countries, the status of the loans for reforestation provided by the World Bank shall be clarified in</p>	CR1	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			regard to ODA relevance.		
B. Duration of the Project Activity / Crediting Period					
B.1 Starting date of the project and the crediting period					
Does the starting date reflect the date of implementation (or when real action began that resulted in changes to the actual net removals) and has it been adequately justified?	2, 17	DR, I, FV	Starting date is 01/01/2008 Compare section C.6 on CDM consideration. The starting date reflects the start of actual implementation, including planting activities. First plantings were visited during the onsite visit in July 2008.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2 Expected operational lifetime					
Has the expected operational lifetime been defined?	2	DR	Yes, defined with 40 years.	<input checked="" type="checkbox"/>	
B.3 Choice of crediting period					
Is the project fixed or renewable and does it has an appropriate crediting period length defined (in years and months)?	2	DR	It is a renewable project with a crediting period of 20 years, and an additional renewable period of 20 years. <u>Clarification Request No 2</u> Indicate the amount of months (in years and months) of crediting period (i.e. 20y, 0 m). In the initial PDD, operational lifetime was defined with 40 y which is shorter than max crediting.	CR 2	<input checked="" type="checkbox"/>
C. Application of Baseline and Monitoring Methodology					
C.1 Title and reference of approved methodology					
Has the approved methodology and any other methodologies or tools used been properly referenced (including version no.)?	2	DR, I	The applied consolidated afforestation and reforestation baseline and monitoring methodology "Afforestation and reforestation of degraded land" (AR-ACM0001 version 02) is properly referenced in the initial PDD and version 03 in the final PDD. The other tools are not named. <u>Corrective Action Request No 6</u>	CAR 6	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Please include at this point / C.1 a list of all used and necessary tools in the PDD, including the number. If a required tool is not used, sustain non-relevance.		
Has the most current version of the methodology been used (consider also PDD formats, eligibility procedure, AR add. tool)?	2	DR	Yes, most current methodology version was used. The initial PDD was developed with version 01 and then updated to version 03 in the course of the validation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2 Assessment and justification of selected methodology					
section I (applicability criteria)					
Does the project use the baseline approach from 5/CMP.1 paragraph 22 of the CDM A/R modalities and procedures: Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary”?	2	DR	Yes the approach is followed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Conditions of applicability					
Is the selected AR project activity implemented on degraded lands, which are expected to remain degraded or to continue to degrade in the absence of the project, and hence the land cannot be expected to revert to a non-degraded state without human intervention?	2, 23, 32	DR, I	<p>Annex 3 includes a description of sources of degradation (deforestation, fire, grazing). During the onsite visit it has been confirmed that the areas are partly with pronounced slopes and that forest fires occur in the region.</p> <p>As the pre-project vegetation is non-forest, the site visits have shown erosion features produced by rain.</p> <p>The audit team concludes that the areas are degraded.</p> <p>While it was noted that land use in future might be less intense / focussed on grazing (also due to migratory processes from villages to towns), it is nonetheless considered that a reversal of degradation may not be expected on a short or medium term.</p> <p><u>Clarification Request No 3</u></p> <p>Evidence shall be indicated in the PDD by which it is sustained that the project areas are degraded.</p>	CR 3	<input checked="" type="checkbox"/>
Has the “Tool for the identification of degraded or degrading lands for consideration in implementing A/R CDM project activities” been applied to demonstrate that lands are degraded or degrading?	2, 23	DR, I	The tool was applied in section C.2. Main evidence are soil erosion maps sustain the degradation of the area.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl												
Does the encroachment of natural tree vegetation lead to the establishment of forests according to the host country definition of forest for CDM purposes?	2, 6, 7, 13	DR, I	No forest development is expected on grazing land or degraded land. The baseline study includes the assessment of regeneration.	☑	☑												
Is flooding irrigation permitted?	2, 4, 32	DR, I	Irrigation activities are not planned and not applicable to the chosen project areas.	☑	☑												
Is the project activity implemented on organic soils, and is drainage is not allowed and not more than 10% of the project area may be disturbed as result of soil preparation for planting?	2, 17, 32	DR, I	No organic soils are included. The disturbance on soil is calculated with 5% of project area.	☑	☑												
Does the establishment of the project decrease the availability of fuelwood?	2, 4, 7, 13, 32	DR, I	There is only limited amount of fuelwood available before project start. Local farmer will be allowed to collect limited amount of fuelwood in the project.	☑	☑												
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	DR	Yes, table C1 and C2 describe the reasons for the choice of respective carbon pools in an adequate manner.	☑	☑												
Are the carbon pools considered in the project activity in line with the requirements of the methodology? ("alternatively No" = it allows also for exclusion if transparent and verifiable information can be provided)	2	DR, I	Yes, activity is in line with requirements. <table border="1"><tr><td>Carbon pools</td><td>Selected</td></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>Yes</td></tr></table> Dead wood and litter are conservatively assumed to be zero increment in the project scenario. For Soil Organic Carbon the default increase of 0.5 tC/ha is applied for 20 years.	Carbon pools	Selected	Above ground	Yes	Below ground	Yes	Dead wood	No	Litter	No	Soil organic carbon	Yes	☑	☑
Carbon pools	Selected																
Above ground	Yes																
Below ground	Yes																
Dead wood	No																
Litter	No																
Soil organic carbon	Yes																
Are changes in soil organic carbon pool accounted by using a default approach in areas of land included in their boundary which satisfy all conditions (i)-(v) listed below?	2	DR, I	The five conditions are met, thus soil organic carbon can be accounted for the in the project with the default value of 0.5 t C/ha/yr for a timeframe of 20 years.	☑	☑												
(i) The area does not include organic soils (e.g., peat-lands),	2	DR, I	No organic soils are included in the project area (see applicability criteria above)	☑	☑												



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl														
or wetlands																			
(ii) Removal of existing vegetation during site preparation for the A/R CDM project activity shall not occur on more than 10% of the area, unless it can be demonstrated that land clearance, is a common practice in the region in which the project is located;	2	DR, I	No removal of pre-existing vegetation is foreseen in the project	☑	☑														
(iii) Litter shall remain on site and not be removed;	2	DR, I	Litter is not allowed to be removed in the project	☑	☑														
(iv) Ploughing/ripping/scarification associated with site preparation for planting, seeding and/or the human-induced promotion of natural seed sources, shall not exceed 10% of the project area (during each occasion);	2	DR, I	Trees will be planted manually, therefore soil disturbance is kept minimal	☑	☑														
(v) If ploughing/ripping/scarification is used for site preparation, it shall follow the land contour.	2	DR, I	Not applicable	☑	☑														
Are the gases considered for emissions in line with the project conditions and the relevant tools for estimating emissions	2, 29	DR, I	<div>The relevant gases are included. It is considered credible that burning for preparation of management will not result in significant emissions. Thus, burning of biomass is excluded due to irrelevance in the project context (see D.2). However, biomass loss due to fires is included as monitoring parameter. Therefore, emissions could be calculated ex-post if they would occur.</div> <table><tr><td>Sources</td><td>Gas</td><td>Included to meth.</td><td>Conclusion</td></tr><tr><td rowspan="3">Burning of woody biomass</td><td>CO₂</td><td>No</td><td>Excluded</td></tr><tr><td>CH₄</td><td>Yes</td><td>excluded</td></tr><tr><td>N₂O</td><td>No</td><td>Excluded</td></tr></table>	Sources	Gas	Included to meth.	Conclusion	Burning of woody biomass	CO ₂	No	Excluded	CH ₄	Yes	excluded	N ₂ O	No	Excluded	☑	☑
Sources	Gas	Included to meth.	Conclusion																
Burning of woody biomass	CO ₂	No	Excluded																
	CH ₄	Yes	excluded																
	N ₂ O	No	Excluded																
C.4 Description of ex ante stratification																			
Have the strata been defined by: (i) Using procedures to stratify lands for A/R project activities under the CDM when approved by the EB; or	2, 8	DR, I, FV	The stratification followed the procedures (ii) on the basis of key parameters: For the baseline scenario stratification for pre-existing vegetation was done. Table C-2 shows the baseline	☑	☑														



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
(ii) On the basis of parameters that are key variables in any method (e.g. growth models, or yield curves/tables) used to estimate changes in bio-mass stocks: <ul style="list-style-type: none"> - For baseline net GHG removals by sinks - For actual net GHG removals by sinks (according to the project planting plan) 			stratification. For actual scenario stratification was based on planting time and site conditions. Table C-3 shows project stratification Four baseline vegetation types were divided in a first step. Within the boundaries of discrete parcel of land several sub-compartments may be present according to baseline strata. Areas of sub-compartments were gathered through field estimates. The baseline strata were then associated to forest models under the reforestation activity. As the areas are degraded the approach is considered appropriate and in line with the chosen methodology.		
Are the results of the stratification included to the PDD?	2	DR	Yes, see table C-2 and C-4 and Fig. C-1. The results are also included in the GIS database. Each parcels is assigned to a specific strata.	<input checked="" type="checkbox"/>	<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	The A/R Methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" was used as required by the methodology (see section C.6).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.5.2 Is the description of the baseline scenario applying to each stratum reasonable?	2	DR	Yes, the description is detailed and reasonable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.6 Assessment and demonstration of additionality					
Step 0. Preliminary screening					
Has evidence been provided that the starting date of the A/R CDM project activity was after 31 December 1999, and that the incentive from the planned sale of GHG emission allowances was seriously considered in the decision to proceed with the project activity (documentation that was available to third parties at, or prior to, the start of the project activity)?	2, 22, 25	DR, I	Project start was 1st of January 2008. It was credibly documented that CDM was considered before the starting date. Agreements on project implementation and carbon finance were signed with the World Bank before the starting date. Corresponding evidence was received.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 1. Identification of alternative land use scenarios to the proposed A/R CDM project activity					



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<p>Have realistic and credible land-use alternative(s) [currently existing or that existed some time since 31 Dec. 1989] been identified (sub-step 1a), at least including:</p> <ul style="list-style-type: none"> Continuation of the pre-project land use AR of the land within the project boundary performed without being registered as the A/R CDM project activity <p>If applicable,</p> <ul style="list-style-type: none"> forestation of at least a part of the land within the project boundary of the proposed A/R CDM project at a rate resulting from <ul style="list-style-type: none"> legal requirements; or extrapolation of observed forestation activities in the geographical area with similar 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. 	2	DR, I	<p>As realistic land-use alternatives are identified in the PDD:</p> <ul style="list-style-type: none"> -The proposed project not undertaken as an A/R CDM project; -Continuation of current barren lands or illegal grazing lands. <p>No further land-use alternatives are mentioned. Detailed justification was included to the PDD.</p> <p>It is indicated that the currently implemented non-CDM reforestation measures by the state are focussing on non-degraded land.</p> <p>The directly surrounding areas as witnessed by the audit team during the site visits did not give the impression that other major forestation activities were ongoing on similar sites.</p> <p><u>Clarification Request No 4</u></p> <p>Clarify further in the PDD based on which concrete sources / evidence it is concluded that the present project area would not have become part of any other public or donor financed reforestation program (as indicated in C.6 of the PDD and World Bank project).</p>	CR4	<input checked="" type="checkbox"/>
<p>Are the alternative(s) in compliance with all applicable legal and regulatory requirements (sub-step 1b)? If that is not the case, an alternative can only be considered if applicable legal or regulatory requirements are systematically not enforced or the non-compliance with those requirements is widespread, i.e. prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area;</p>	2, 27	DR, I	<p>The alternative of reforestation as non-CDM is in compliance with the actual regulations and laws.</p> <p>The continuation of the current baseline which is mostly grazing is frequently in opposition to the legal/formal land use category.</p> <p>It is common understanding within the Chinese forestry sector that land use category "forest" does not necessarily mean that this land is actually covered with forest. Thus, this is interpreted as a regular non-enforcement of what could be interpreted as a legal requirement (of reforestation).</p> <p>The PDD underlines that baseline grazing in actually</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			not in line with legal requirements and that the project scenario would contribute to compliance.		
Is the project scenario not the only remaining alternative?	2	DR, I	The project scenario is not the only remaining alternative - the continuation of the baseline remains.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
STEP 2. Barrier analysis					
Is a complete list of barriers developed that prevent the different alternatives to occur (sub-step 2a)?	2, 26, 36, 37, 38, 39	DR, I	<p>Barriers listed in initial PDD:</p> <ul style="list-style-type: none"> • Investment barriers • Technological barriers • Institutional barriers • Market barriers <p>In the onsite visit the project team indicated that the incentive to sell the carbon credits is necessary for the reforestation- and that otherwise it is not feasible due to financial constraints. It was indicated furthermore to the audit team that stakeholders consider they have difficulties to implement such reforestation activities only with World Bank loan.</p> <p>During the onsite visit the investment barrier was indicated to be the most significant barrier. In the PDD, the investment barrier is subdivided to a) lack of credit for farmers, also for agricultural activities, and b) no long term debt funding, as well as c) low funds / revenues available by forestry farm.</p> <p>The unavailability of loans is underlined with evidence provided by several local banks. The audit team considers that for the project constellation (country, ownership type, separate sites) also regular international finance is unlikely to be available.</p> <p>The audit team noted that the project team opted to also include an investment analysis (Step 3)</p> <p>It is partially argued on additionality in relation to the views and possibilities of the individual farmers and thus arguments are not only specific to the participant. This applies mainly to the technological and institu-</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			tional barriers. The information is considered relevant as this credibly underlines that the indirectly participating community members would not be able to carry out the reforestation measures being part of this AR-CDM activity.		
Is transparent and documented evidence provided on the existence and significance of these barriers?	2, 36, 37,38, 39	DR, I	Clarification Request No 5 Clarify in the PDD the type of evidence / sources that sustain the significance of the barriers (technological / institutional / market risk).	CR 5	<input checked="" type="checkbox"/>
Is it determined which land use scenarios identified in the Sub-step 1b are prevented by at least one of the barriers listed in sub-step 2a (sub-step 2b)?	2	DR, I	Yes, the "proposed project not undertaken as an A/R CDM project" could not be carried out because of the indicated barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is it substantiated that the barrier identified as preventing realization of a land use scenario is valid and conclusive in the context of the land use scenario in question (sub-step 2b)?	2	DR, I	Yes, barriers identified are valid and conclusive.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
If the land within the boundary of the proposed A/R CDM project was at least partially forested since 31 December 1989 and the land is not a forest at the project start, is it demonstrated that under the current conditions (legal, financial, socio-economical, ecological or others) repetition of the forestation performed without being registered as the A/R CDM project activity is not possible?	2, 6, 7	DR, I	No land in project boundary was forested after 31. December 1989. In vision of the presented additionality analysis, the reforestation of the project areas is not possible without the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has the barrier analysis allowed determining whether the proposed A/R CMD project is additional (sub-step 2c)?	2	DR, I	Yes, barrier analysis showed additionality of the A/R CDM project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
STEP 3. Investment analysis					
Is the analysis method identified appropriately (sub-step 3a)?	2	DR, I	In addition to barrier analysis also an investment analysis has been carried out. Benchmark (Option III) analysis is chosen.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	2, 34	DR	Option III has been applied. Financial Rate of Return was used as main financial indicator. NDRC project benchmark of 8% is considered in the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			PDD. The audit team reviewed the source and considers the approach acceptable for reforestations in China. It was noted that also a lower benchmark could have been used. Thus this approach is conservative. NDRC source: Project Benchmark(excluding tax) for afforestation.		
In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	2	DR, I	The calculation was done only for the reforestation scenario. The only other alternative is the baseline. No investment necessary.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	2, 34, 35	DR, I	The analysis is provided in templates of the BioCarbon Fund. Clarification Request No 6 In order to increase transparency and fully trace the financial analysis, indicate the relevant references on the key costs and incomes values used in the calculation (e.g. as comment in updated excel table) and provide the corresponding sources (Models and Costs Analysis Report 2005 and further documents, if applicable).	CR 6	<input checked="" type="checkbox"/>
Is a sensitivity analysis included? - Is the initial conclusion regarding the financial attractiveness of the baseline scenario robust to reasonable variations in the critical assumptions? - Is the outcome of the sensitivity analysis that the proposed AR project activity would unlikely to be financially most attractive?	2, 35	DR, I	Yes, a sensitivity analysis was carried out with a 10% variation of main cost and incomes from reforestation activities. The analysis is considered adequate and sustained.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
STEP 4. Common practice analysis					
Is the project activity common practice in the region?	2, 27	DR, I	It is indicated that there have been some reforestations in the project areas. a) Plantations of Eucalyptus, but only on good site conditions b) Some reforestations on degraded sites but only because there were no other investment possibilities for	CR 7	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			farmers in this time. Because of the plantations were not economic, these activities were limited only to a few sites. c) Project financed by World Bank loans, but only on better site conditions economical. <u>Corrective Action Request No 7</u> Please incorporate to the PDD the regional reforestation rates and clarify their relevance in the project context.		
Has a common practice analysis been carried out in line with the requirement of the proposed A/R CDM project and are there essential distinctions between them?	2, 27	DR, I	The common practise analysis was carried out in line with the requirements of the proposed A/R CDM project. There are essential distinctions between the reforestation activities, due to financial barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(If there is reforestations in the region) Are there fundamental and verifiable changes in circumstances when compared to other projects	2, 27	DR, I	The most important difference is the site conditions which are degraded in the project case.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.7 Estimation of the ex ante baseline net GHG removals					
Have the ex ante baseline removal calculations been provided in the table, do they correspond to the chosen crediting period and use the approach provided in the selected approved methodology?	2, 29	DR, I	Yes, table existent, corresponding to crediting period of 20 years. Correct methodology was used. It is noted that the baseline stocks as well as removals are estimated based on inventory data of individual trees and then discounted in the further calculation. The latter approach of discounting initial stocks is in line with the tool: Estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of a A/R CDM project activity. Thus, apart from the indications on the exclusion of biomass burning (see D.1 of PDD) the tool requirements are considered to be complied with through the discount of stocks.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
section II.4 (Estimation of baseline net GHG removals)					
Have the changes in carbon stock of above-ground and be-	2, 29	DR, I	No. Annual average stock changes under baseline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
low-ground biomass of non tree vegetation been assumed to be zero for all strata in the baseline scenario?			conditions are assumed to be on average 770 tonnes CO ₂ e/year (values ranging from 374-1,037 tonnes CO ₂ e/year).		
Is it assumed that the sum of the changes in the carbon stocks of dead wood and litter carbon pools is zero for all strata in the baseline scenario?	2, 29	DR, I	Yes, the sum of the changes in the carbon stocks of dead wood and litter carbon pools are assumed to be zero for all strata in the baseline scenario.	☑	☑
Have the changes in carbon stock in soil organic carbon been assumed to be zero for all strata in the baseline scenario?	2, 29	DR, I	Yes, soil organic carbon is assumed to be zero as well.	☑	☑
Is the baseline net GHG removal considered for above and below ground biomass of trees in the baseline?	2, 29	DR, I	Yes, see also annex 3. Table 3-6	☑	☑
Carbon stock changes in above-ground and below-ground tree biomass					
For estimation of carbon stock changes in above- and below-ground tree biomass in the baseline, is the formula included to the PDD and correctly applied?	2, 29	DR, I	The formulas are included in the PDD.	☑	☑
Is the baseline annual net carbon stock change in above-ground and below-ground biomass, estimated using one of following two methods (increment data vs. stock data): • Method 1: Carbon gain-loss method • Method 2: stock change method	2, 29	DR, I	Method 2, stock change, is applied.	☑	☑
Has the corresponding formula been applied correctly, are used values in line with onsite conditions and are they clearly sustained / referenced?	2, 29, 33, 45	DR, I	Formulas 7-10 of the methodology were used. The formulae have been applied correctly. The data sources are mainly national inventories and IPCC.	☑	☑
In regard to Dj (wood density), BEF1,j (biomass expansion factor for conversion of increment), BEF2,j (biomass expansion factor for conversion of volume), CFj (carbon fraction for species) and Rj (root to shoot ratio). Have values been chosen with priority from local values to IPCC defaults?	2, 29, 45, 33	DR, I	Wood density sources are documented. For BEF2 average figures were applied from a scientific data base on BEF. 1.3 was used for BEF in open field. CFj and RJ sources are documented. Allometric equations taken from 1978 publication on different regions of China.	CR 7	☑



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Clarification Request No 7 Clarify in the PDD the sources of the main values applied for BEF, WD, CF; Rj, also for baseline estimates and document the compliance of the choice in priority from local to IPCC values (in line with indications for ex-ante actual net changes in D.1) Compare also section in checklist on data available at validation)		
If data from global or national databases has been used, have values been confirmed through local data from literature or inventory?	2, 29, 45	DR, I	See CR above	CR 7	<input checked="" type="checkbox"/>
Steady state under the baseline conditions: If the baseline net GHG removals by sinks are greater than zero, has it been assumed to be constant until steady state is reached under the baseline conditions?	2, 29	DR, I	Allometric equations have been applied to model baseline growth of trees. The approach is accepted. Steady stage is not arrived at within the crediting period.	<input checked="" type="checkbox"/>	<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	Date of completion of baseline study: 25 th November 2007. A list with all persons determining the baseline study is included to the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D. Estimation of ex ante Actual Net Removals, Leakage and Net Anthropogenic Removals					
D.1 Estimation of ex ante actual net removals					
Are the calculations of ex ante actual net removals for the crediting period consistent with the approach in the selected methodology and adequately defined?	2, 29	DR, I	The calculations on the ex-ante actual net removals comply with the requirements of the methodology. It was noted that all pre-existing stocks were discounted. This is conservative. In removal calculations, allometric equations are from regional sources – based on regional inventory data. For Masson Pine and Chinese Fir and Flouss there is no further yield tables available. Eucalyptus from regional yield table. Other broadleaf species equations also from inventory data in Guangxi. Clarification Request No 8 The audit team noted that the allometric equations are	CR 8	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			developed from stands on average sites within a larger region. The sites of this particular project area are considered to be degraded. Clarify if the site conditions are "under-average" and if the use of the current equations is conservative (also for Eucalyptus).		
Has a conservative approach been retained for making the estimates of the values of the parameters that are not available?	2	DR, I	Yes, compare also section on applicability.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Estimation of changes in carbon stocks in the <u>project scenario</u> (section II.5.1):					
Has the formula for the calculation of actual changes in living biomass, dead wood, litter and soil organic carbon stocks been applied correctly?	2, 29	DR, I	The set of excel spreadsheets has been reviewed. Calculations have been applied correctly. Dead wood and litter have been excluded. Soil organic carbon is considered with an increment of 0.5 tC7ha*yr for 20 years.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has the annual change in carbon stock in all carbon pools for year <i>t</i> been estimated adequately and in line with the methodology requirements? Is sufficient evidence provided on input values?	2, 29	DR, I	Yes, the assumptions are sustained. Evidence is discussed in the section on the respective parameters below.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>5.1.1 Tree Biomass</i>					
Has the mean carbon stock in above- and below-ground biomass per unit area been calculated under the biomass Expansion Factors (BEF) method, or the Allometric Equations method?	2, 29, 45	DR, I	See above. Species specific sources for allometric equations for BEF, RS and WD are used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Have all the steps followed according the methodology requirements for the selected method?	2, 29	DR, I	All calculation steps are applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Estimation of GHGe					
Is the increase of GHG emissions (GHG _E) estimated according to methodology implications and is sustained and references input data used?	2	DR, I	Only emissions from burning of woody biomass have to be considered as per methodology. This is not foreseen in the project. As unintentional fires can occur, it is however included as monitoring parameter.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has the tool "Estimation of GHG emissions due to clearing, burning and decay of existing vegetation attributable to a	2	DR, I	The tool has been applied. Although the removal of existing vegetation due to site	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
CDM A/R project activity" been applied?			preparation might be insignificant according to the respective guidelines, it is conservatively assumed that pre-existing vegetation will decay and thus are conservatively accounted as carbon loss in the year of project start.		
Have non-GHG emissions due to biomass burning been assessed according the latest version of the tool: Estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of a A/R CDM project activity	2	DR, I	Biomass burning is not expected in the project and is therefore not included. The methodology only takes reference to biomass burning while the tool also relates to emissions from vegetation being outcompeted. Note that corresponding baseline stocks were discounted. Thus tool compliance is considered to be assured. In any case to maintain a conservative approach monitoring of biomass burnt is included as monitoring parameter to allow for ex-post calculations, in case unintentional fires would occur. See also section D.1 on baseline estimates.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data and parameters that are available at validation					
Is the list of parameters presented in chapter D.1 considered to be complete with regard to the requirements of the applied methodology (section II.8)?	2	DR, I	<u>Corrective Action Request No 8</u> A complete list of parameters available at validation shall be included to the PDD. Summarize sources and compliance with methodology requirements.	CAR 8	<input checked="" type="checkbox"/>
Parameter Title: A Bsl, i, y (area of baseline strata i)	2	DR, I	See section C4 regarding stratification and determination of the area.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: <i>BEF1, j</i> (annual net increment (including bark) in stem biomass to total above-ground tree biomass increment) (for gain loss method)	2	DR, I	Not applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: <i>BEF2, j, DS BEF 2</i> (merchantable biomass to above-ground tree biomass) (for stock change method)	2, 45	DR, I	Regional database, species specific values.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Parameter Title: CF_{DW} (carbon fraction dead wood)	2	DR, I	Not applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: CF_j , CF_{DS} (Carbon fraction of dry matter for species of type j)	2, 33	DR, I	Taken from IPCC GPG LULUCF (0.5). It is considered credible that no better sources are available.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: CFL_i (carbon fraction litter)	2	DR, I	Not applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: D_j , DS (Basic wood density for species j)	2, 45	DR, I	Regional database, species specific values.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: DW, ds (Basic wood density of dead wood in 3 classes)	2	DR, I	Not applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: $f_j(DBH, H)$ (Allometric equations for species)	2	DR, I	Regional database, species specific values.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: $IV_{j i t}$ (Av. annual increment in merchantable volume of species j in stratum i , for year t)	2, 45	DR, I	Regional database, species specific values.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: $nTR_{j,i,t}$ (Pre-project tree stand density of species j in stratum i , at time t)	2, 7, 13	DR, I	See section C4 number of pre-project trees (=stand density).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: R_j (Root-shoot ratio appropriate for biomass stock, for species j)	2, 45	DR, I	Regional database, species specific values.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: $R1, j$ (Root-shoot ratio appropriate for biomass increment for species j)	2	DR, I	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter Title: $V_{tree j i t}$ (Pre-project tree stem volume of stratum i , species j , at time t)	2, 45	DR, I	See section C4 and D1 for pre-project trees and their volume Baseline estimates per species groups.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ΔC	2	DR	Annual default of 0.5 t C/ha used according to the methodology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
$t_{\text{equilibrium}}$	2	DR	20 years used according to the methodology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2 Estimation of ex ante leakage					
Are the calculations of ex ante leakage for the crediting period consistent with the approach in the selected methodology and adequately defined?	2, 29	DR	Leakage from activity displacement is considered according to the tool "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity". (see below for details) LK activity displacement is set =0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Estimation of $LK_{\text{ActivityDisplacement}}$ - Carbon stock decreases caused by displacement of pre-project agricultural activities, grazing and fuelwood collection:	2, 7	DR	It is credibly shown in the project context and through onsite visits that only the displacement of grazing is relevant for leakage assessment from activity displacement. Through the estimates of animal load on the project areas and the available areas for partial displacement, it is shown that no significant leakage sources emerge.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Have the emissions from $LK_{\text{ActivityDisplacement}}$ been estimated adequately and in line with the methodology requirements and has sufficient evidence provided on input values?	2, 7	DR	Assessed based on Excel spreadsheets. Input values have been confirmed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Has the calculation of leakage due to conversion of land to grazing land been estimated using the tool: "Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity"?	2, 4, 32	DR, IV, FV	The tool was applied and the requirements of the tool are considered to be complied with.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 1: Is there displacement of grazing activities from areas of land within the project boundary which are measurable and attributable to the afforestation or reforestation project activity?	2, 4, 32	DR, IV, FV	The pre-project animal population was assessed in a PRA exercise. Only few parts of the project area have pre-project grazing.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 2: Is there displacement of grazing activities to unidenti-	2, 4,	DR,	No displacement to unidentified lands is expected.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
fied lands?	32	IV, FV			
Step 3: Determination of GHG emissions caused by displacement to cropland	2, 4, 32	DR, IV, FV	No displacement to cropland is expected.	☑	☑
Step 4: Determination of GHG emissions caused by displacement to grassland	2, 4, 32	DR, IV, FV	The animals will be displaced to known grazing land under control of the PP that still has the carrying capacity for the displaced animals. Number of animals per parcels, existing grazing land outside the project area owned by the owner of the animals and additional grazing capacity was assessed by the PP during an PRA exercise. No additional GHG emission are expected	☑	☑
Step 5: Determination of GHG emissions caused by displacement to forest land	2, 4, 32	DR, IV, FV	No displacement to forest lands is expected.	☑	☑
Step 6: Determination of GHG emissions caused by an increase in fossil fuel and fertilizer use due to the displacement	2, 4, 32	DR, IV, FV	No increase in fossil fuel use or fertilizer use is expected. In addition as per EB 44 emissions from fossil fuels and fertilizer are also considered insignificant.	☑	☑
Step 7: Estimation of total leakage from displacement of grazing animals $LK_{Displacement,t} = LK_{Perennial,t} + LK_{Overgrazing,t} + LK_{Deforestation,t} + LK_{N_2O-Dis}$	2, 4, 32	DR, IV, FV	Total leakage is calculated as zero, as no emissions are expected to occur due to leakage.	☑	☑
E. Monitoring Plan					
E.1 Monitoring of the project implementation					
E.1.1 Has data to be collected for monitoring of forest establishment and management been listed adequately?	2	DR	The data are listed adequately.	☑	☑
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	Measurements follow typical forest mensuration. They are sufficiently defined for validation.	☑	☑
E.1.2 Have the SOPs and quality control/quality assurance	2, 42	DR	Yes, the QA/QC procedures have been adequately	☑	☑



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
(QA/QC) procedures applied been adequately described according to the methodology requirements?			described for the main parameters. Compare with section E.6. During the onsite visit the responsibilities were discussed. First level monitoring (forestry farm and company) will report to second level, which is the Forestry Bureau. On a third level, provincial forestry office as part of the public administration is involved.		
E.2 Sampling design and stratification					
Has the ex ante stratification of the project area been included to the PDD, if not, is it justified?	2, 8	DR	Yes, ex-ante stratification of the project area has been included to the PDD. The stratification is also included in the GIS files	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Have the conditions for ex-post strata update (within in GIS data base) been included to the PDD / Monitoring Plan?	2	DR	Yes. Update conditions are included.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Is the sampling framework determined using the tool for the "Calculation of the number of sample plots for measurements within A/R CDM project activities"?	2	DR	The sampling framework is determined and the correct tool for sampling is applied. The sampling design (number, size of plot, location) is considered to be in line with the requirements of the corresponding tool. The application of the tool for future monitoring is confirmed. Estimates on necessary plots are considered conservative.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.3 Monitoring of the baseline net removals					
Is monitoring of the baseline net removals required by the selected methodology? If yes, <ul style="list-style-type: none"> 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? 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? 	2	DR	Baseline monitoring is not required as per methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4 Monitoring of the actual net removals					
Has the data to be collected in order to monitor the <u>changes in carbon stock</u> resulting from the project been adequately defined?	2	DR	A list with data to be collected is available in the PDD. The guidelines provide the used template in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			The methodology applies the new format on parameter description.		
A _i - Area of stratum <i>i</i> ; Is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	DR, I	Parameter is included to the monitoring requirements.	☑	☑
a _{i,sp} - Area of sampling frame; Is the parameter included and are monitoring requirements as per methodology included to the PDD?	2	DR, I	Not applicable to the project.	☑	☑
Asp, _i - Total area of all sample plots in stratum <i>i</i> ;	2	DR, I	Parameter is included to the monitoring requirements.	☑	☑
BLI _{wet,i,sp} - Humid weight (field) of the litter in plot <i>sp</i> of stratum <i>i</i>	2	DR, I	Not applicable to the project.	☑	☑
CSOC _{sample,i,p,t} - Soil organic carbon of the sample in plot <i>p</i> in stratum <i>i</i> , time <i>t</i>	2	DR, I	As per methodology, the default parameter of 0.5 t C/ha will be applied. Thus SOC will not be monitored, in accordance with the methodology (II.5.1.4.1)	☑	☑
D _{n,i,t} - Diameter of piece <i>n</i> of dead wood along the transect in stratum <i>i</i> , at time <i>t</i>	2	DR, I	Not applicable to the project.	☑	☑
DBH _i - Diameter breast height of tree	2	DR, I	Parameter is included to the monitoring requirements.	☑	☑
H - Height of tree (implicitly used)	2	DR, I	Parameter is included to the monitoring requirements.	☑	☑
L - Length of the transect to determine volume of lying dead wood	2	DR, I	Not applicable to the project.	☑	☑
MPLI - Dry-to-wet weight ratio of the litter	2	DR, I	Not applicable to the project.	☑	☑
N - Total number of wood pieces intersecting the transect	2	DR, I	Not applicable to the project.	☑	☑
t ₁ and t ₂ - Number of years between monitoring time	2	DR, I	5 year monitoring interval is foreseen in the project	☑	☑
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	DR, I	Yes, procedures follow typical forest mensuration practices.	☑	☑
E.5 Leakage					
E.5.1 If monitoring of leakage is required by the selected methodology has this been stated and has the data and information that will be collected to monitor leakage been adequately defined?	2	DR, FV, IV	The parameter as per leakage tool are included in the monitoring plan of the PDD	☑	☑



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
E.5.2 Have procedures for the periodic review of the implementation of activities and measures to minimize leakage been adequately defined?	2	DR	Procedures have been described adequately with: -Illegal logging controlled by local forestry sector. -review of awareness training for forest protection.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.6 QA/QC procedures undertaken for data monitored					
Have QA/QC procedures been defined appropriately and are explanations of procedures (including their absence) reasonable?	2	DR	Procedures are provided in a list with all parameters that are not included in the list of E.1.3. <u>Corrective Action Request No 9</u> Include to QA/QC procedures for boundary reconfirmation / Total project area and underline if/why uncertainties from BEF is considered low instead of medium.	CAR 9	<input checked="" type="checkbox"/>
In regard to uncertainties, has the assessment followed guidance provided by IPCC 2000 and GPG-LULUCF and the IPCC's Revised 2006 Guidelines?	2	DR	The PDD indicates that the monitoring procedure will follow the GPG-LULUCF of the IPCC.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.7 Operational and management structure of project operator					
Has the operational and management structure that the project operator will implement in order to monitor actual removals and leakage by the project been adequately defined?	2	DR	Yes, the operational management structure has been described for all involved partners in the monitoring process.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.8 Person applying monitoring plan					
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	A complete list is provided. Contact details are given.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F. Environmental Impacts of the Project					
F.1 Documentation of analysis of environmental impacts					
Has an analysis of the environmental impacts including impacts on biodiversity and natural ecosystems and impacts outside the project boundary been adequately documented?	2, 14, 32	DR, I	An analysis has been conducted adequately. Positive impacts on: -biodiversity conservation -controlling of soil erosion -regulation of hydrological flow -improving nutrient cycle of soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			-local climate stabilization The same project also undergoes CCBA validation.		
Does the analysis include (where applicable) adequate information on hydrology and soils, and risk of fires, pests and diseases?	2, 14	DR, I	Analysis includes information on the improvement of the soils, nutrient cycle, controlling of soil erosion. Risk of fires, pests and diseases.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.2 Significant negative impacts					
If any negative impact is considered significant by the project participants or the host Party, has a statement that the project participants have undertaken an environmental impact assessment in accordance with the procedures required by the host Party (including conclusions and references to supporting information) been provided?	2, 14	DR	<p>No significant negative environmental impacts mentioned or identified by the auditor. .</p> <p>Considered as possible risks in the PDD are:</p> <ul style="list-style-type: none"> - monocultures - fires - site preparation - fertilization - pesticide application <p>From the audit team's point of view the most relevant risk in this project is fire.</p> <p>The required environmental management plan under the WB project (GIFDCP) was reviewed and discussed onsite. Necessary measures are covered by the design of the reforestation plans (e.g. concerning fertilizer application, soil disturbance, planting techniques).</p> <p><u>Clarification Request No 9</u></p> <p>Clarify and document in the PDD the legal context which defines EIA requirements and compliance for the project activity. Clarify why the processes and documents on GIFDCP also apply to this CDM activity.</p>	CR 9	<input checked="" type="checkbox"/>
F.3 Remedial measures to address impacts					
Has a description of the planned monitoring and remedial measures to address significant environmental impacts been adequately defined?	2,	DR	An environmental assessment has been undertaken and an environment management plan has been developed under the umbrella GIFDCP project to guide and monitor this project implementation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
G Socio-economic Impacts of the Project					
G.1 Documentation of analysis of socio-economic impacts					
Has an analysis of the socio-economic impacts including impacts outside the project boundary been adequately documented?	2,7,11	DR,I	A socio-economic analysis was carried out in all villages, sited near the different project sites. Participatory rural appraisal (PRA) methodology was applied. The documentation is adequate and complete. Positive impacts through AR are expected in: <ul style="list-style-type: none"> - Income generation, - creating employment - better fuel wood access, - strengthening the social cohesion, - technical training (transfer of know-how) 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Does the analysis adequately include (where applicable) information on local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites and access to fuel wood and other forest products?	2,7,11	DR, I	The analysis gives detailed information about: Ethnic minorities, agriculture as main income source, food productivity, annual income, access to fuel wood, demographical situation, labour access.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.2 Significant negative impacts					
If any negative impact is considered significant by the project participants or the host Party, has a statement that the project participants have undertaken a socio-economic impact assessment in accordance with the procedures required by the host Party (including conclusions and references to supporting information) been provided?	2,7,11	DR, I	No negative socio-economic impacts detected. The only impact which could possibly be relevant could be the loss of grazing areas in some villages. See grazing assessment in PDD. Alternative areas are available. This is going to be outcompeted largely by the benefits of reforestations.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.3 Remedial measures to address impacts					
Has an adequate description of the planned monitoring and remedial measures to address significant socio-economic impacts been provided?	2,7,11	DR, I	Not applicable, as no significant socio-economic impacts have been identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H Stakeholder Comments					
H.1 Description of how stakeholder comments have been invited and compiled					
Has a description of how stakeholder comments have been invited and compiled been provided and has it been under-	2,7,24	DR	Stakeholders have been identified. Compare categories in H.2 of PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
taken 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?			Stakeholders were informed about the projects by: - Establishment of PRA team - Distribution of project information - Village meeting - Questionnaire Comments have been invited through meetings and questionnaires.		
H.2 Comments received					
Have stakeholders who made comments been identified and has a summary of the comments been provided?	2,7,24	DR	Identification of stakeholders is done in groups (primary stakeholders: farmers and communities, Forestry Farms; secondary stakeholders: Local forestry departments, Local Governments, Nature Reserve). A detailed summary was included in the PDD. Evidence was reviewed by the audit team.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.3 Report on due account					
Has an explanation on how due account has been taken regarding the received comments from stakeholders been provided?	2,7,24	DR	A list with the comments of farmers which have been fully taken into account is included into the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annexes					
Annex 1 Contact information on project participants					
Is contact information on participants of the project complete?	2	DR	The list of contact information is complete.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annex 2 Public funding					
Has information been provided from Parties listed in Annex 1 on sources of public funding for the project which affirms that funding does not result in a diversion of official development assistance and is separate from and not counted towards the financial obligations of those Parties?	2	DR	There is no available public funding that will result in a diversion of official development assistance and financial obligations of any Parties under UNFCCC. See section A.10 above and CR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annex 3 Baseline information					
Has information additional to that required in Section C or in the approved methodology been provided (or stated as not required)?	2	DR, I	Data on baseline study included to PDD. The land assessment included among others eligibility, ownership status and present vegetation. Four main baseline types were divided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Baseline carbon stocks and removals have been assessed. The baseline approach has been reconfirmed through the onsite field visits, which also included the review of the baseline study.		
Annex 4 Monitoring plan					
Has the monitoring plan been included as annex 4 and does it allow for all the requirements listed under paragraph 25 of the Modalities and procedures for A/R project activities under the CDM?	2	DR	All information has been included in Section E above. Therefore Annex 4 here is left intentionally blank.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table 2: Summary of Requests and Responses of Project Participant and Audit Team

Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
<u>Corrective Action Request No. 1:</u> For table A-2, the coordinate system and projection used shall be indicated. It shall be indicated if these are two or four points, and how they have been chosen in order to describe and identify the project areas.	A.4.1	<u>Project Team, 12. Dec 2008:</u> The coordinates listed in the table represent the geographical ranges of the villages, which are based on Beijing 1954 3 degree zone and Gauss-Krüger projection. This has been described in a footnote in Section A.4.1.3 <u>Audit Team, 8. Feb 2009:</u> Reference to coordinate system is provided in the PDD. Ranges were identified in the table A2. Furthermore, digital boundary files in GIS have been submitted to DOE and provide sufficient evidence on project boundaries.	<input checked="" type="checkbox"/>
<u>Corrective Action Request No. 2:</u> In order to allow clear identification of sites (also as basis for verification), please include maps of the project boundaries with the identification number for each discrete area of land on the map while insuring consistency with Annex 3-1. In any map, please include coordinate system and scale in order to allow for clear identification. An	A.4.2	<u>Project Team, 12. Dec 2008:</u> All these requested information have been included in attached shp file folders (see attached files CAR_2_1, CAR_2_2 and CAR_2_3 for three project county). <u>Audit Team, 8. Feb 2009:</u> Overview maps with project boundary have been provided in PDD. The requested PDD updates were not fully carried out, however, the information requested is included in the digital boundary files. If the	<input checked="" type="checkbox"/>



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
adequate scale should be chosen in order to allow identification of boundaries (i.e 10-25.000)		<p>project team approves that the digital boundary files (shape files) will be uploaded and be publicly available on the UNFCCC webpage, the given information is considered sufficient and compliant with requirement of UNFCCC guidance.</p> <p>Otherwise please include scale and coordinates in each map and label each discrete parcel (land ID) of the project area.</p> <p>Project Team <u>Project Team, 22. Feb 2009:</u> The project team agrees that the digital boundary files (shape files) can be publicly available on the UNFCCC webpage.</p> <p><u>Audit Team, 8. March 2009:</u> The information provided is adequate to allow verifiable boundary definition and does include strata labelling. The request is closed.</p>	
<u>Corrective Action Request No. 3:</u> Compliance with UNFCCC requirements in regard to project area under control at validation shall be demonstrated, documented in the PDD and sustained with further evidence.	A.6	<p><u>Project Team, 12. Dec 2008:</u> PDD Section A.6 has been revised and certificates for land ownership/tenures and/or contracts between operating entities and villages/farmers were provided and photocopied to on-site auditors.</p> <p><u>Audit Team, 8. Feb 2009:</u> Contracts on land ownership were reviewed for sample parcels checked during onsite visit. The request is therewith covered and closed. (see also CAR 4)</p>	☑
<u>Corrective Action Request No. 4:</u> The monitoring of the access to land and carbon rights via contracts shall be included to the monitoring plan.	A.6	<p><u>Project Team, 12. Dec 2008:</u> Monitoring plan has been revised accordingly in PDD Section E.1.1.a.</p> <p><u>Audit Team, 8. Feb 2009:</u> Monitoring plan has been revised. Include an ID number, data unit and indicate if m, c, e or d</p> <p><u>Project Team, 22. Feb 2009:</u> Relevant information has been added in the table below PDD Section E.1.1.b.</p> <p><u>Audit Team, 8. March 2009:</u> The table has been updated correspondingly. Monitoring land and carbon rights is also included in the PDD.</p>	☑



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
<u>Corrective Action Request No. 5:</u> The maps included on historic land use in section A.7 of PDD require English labelling.	A.7	<u>Project Team, 12. Dec 2008:</u> Maps have been replaced as requested. <u>Audit Team, 8. Feb 2009:</u> Maps have been changed. Original documents were reviewed onsite.	☑
<u>Corrective Action Request No. 6:</u> Please include at this point / C.1 a list of all used and necessary tools in the PDD, including the number. If a required tool is not used, sustain non-relevance.	C.1	<u>Project Team, 12. Dec 2008:</u> Tools used have been included in PDD Section C.1. <u>Audit Team, 8. Feb 2009:</u> A list with the tools used is provided. Include version number of the tools. <u>Project Team, 22. Feb 2009:</u> Version number has been added. <u>Audit Team, 8. March 2009:</u> Change was carried out, the tools are listed. The request is covered and closed.	☑
<u>Corrective Action Request No. 7:</u> Please incorporate to the PDD the regional reforestation rates and clarify their relevance in the project context.	C.6	<u>Project Team, 12. Dec 2008:</u> A paragraph including a statistic table has been added in PDD Section C.6 sub-step 1d to response the Corrective Action Request. In addition, related reforestation rate of the three project counties have been provided to auditors during on-site auditing. <u>Audit Team, 8. Feb 2009:</u> A paragraph on local reforestation is included, reforestation is only viable on areas close to roads; the CDM AR activity is however in remote areas and would thus not be included in reforestation projects. Audit team concludes that this is in compliance with step 4 of the additionality tool.	☑
<u>Corrective Action Request No. 7:</u> A complete list of parameters available at validation shall be included to the PDD. Summarize sources and compliance with methodology requirements.	D.1	<u>Project Team, 12. Dec 2008:</u> Table D-1, which includes parameters used for ex estimate of the actual net greenhouse gas removals by sinks, has been added in PDD Section D.1 <u>Audit Team, 8. Feb 2009:</u> A list with BEF2, CF, D and R is provided for the different species. Reference was checked onsite. Information on all parameters as per section II.8 of methodology is provided. The request is therewith cov-	☑

Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		ered and closed.	
<u>Corrective Action Request No. 8:</u> Include to QA/QC procedures for boundary reconfirmation / Total project area and underline if/why uncertainties from BEF is considered low instead of medium.	E.6	<p><u>Project Team, 12. Dec 2008:</u> PDD E6 has been revised based as of request.</p> <p><u>Audit Team, 8. Feb 2009:</u> Boundary and total area are included in the list of QA/QC procedures planned. Provide information on relevant Quality Assurance and Quality Control procedures (not just the measurement, but a procedure for assurance and control of quality)</p> <p><u>Project Team, 22. Feb 2009:</u> QA/QC procedures to be undertaken were included in PDD Section E.1.2. It is unnecessary to repeat in Section E.6</p> <p><u>Audit Team, 8. March 2009:</u> The table has been complemented and the information requested is provided.</p>	☑
<u>Clarification Request No. 1.</u> In order to confirm that there is no public funding from Annex I countries, the status of the loans for reforestation provided by the World Bank shall be clarified in regard to ODA relevance.	A.10	<p><u>Project Team, 12. Dec 2008:</u> IBRD's loan was used to partially finance the proposed reforestation project. However, the funding of IBRD's loan is raised from international capital market rather than ODA. No public funding from Annex I is involved in the loan.</p> <p><u>Audit Team, 8. Feb 2009:</u> IBRD shall provide evidence that financing sources are actually loans and do not qualify as ODA.</p> <p><u>Project Team, 22. Feb 2009:</u> The circulation from Guangxi Forestry Bureau on the allocation of World Bank loan to three project counties to finance this CDM reforestation project is attached. (See attached CR 1-1, CR 1-2, CR 1-3 and CR 1-4).</p> <p><u>Audit Team, 8. March 2009:</u> The evidence has been received. The documents that less area is</p>	☑



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		implemented (by forest bureau) as part of the (non-CDM) GIFDCP project due to increased cost load of reforestations. Evidence that is able to cover the auditors request to document (that no ODA is used) remains to be submitted. <u>Audit Team, 19. March 2009:</u> Additional evidence has been provided by IBRD that the GIFDCP is loan financed and therefore not ODA based.	
<u>Clarification Request No. 2.</u> Indicate the amount of months (in years and months) of crediting period (i.e. 20y, 0 m). In the initial PDD, operational lifetime was defined with 40 y which is shorter than max crediting.	B.3	<u>Project Team, 12. Dec 2008:</u> Project life time was revised to 60 years 0 months in PDD B.2., B.3., B.3.1 - which also is satisfying requirements of the corresponding tool. <u>Audit Team, 8. Feb 2009:</u> Project life time was changed to 60 years.	☑
<u>Clarification Request No. 3.</u> Evidence shall be indicated in the PDD by which it is sustained that the project areas are degraded.	C.2	<u>Project Team, 12. Dec 2008:</u> Soil erosion map and pictures of some degraded lands have been added in PDD section C.2. <u>Audit Team, 8. Feb 2009:</u> A soil erosion map has been included in the PDD. It is considered an indication for soil erosion in the region. Jointly with the onsite visit (confirming ongoing erosion) this is considered sufficient evidence. Also the tool for identifying degraded land is referred to and applied in the PDD.	☑
<u>Clarification Request No. 4.</u> Clarify further in the PDD based on which concrete sources / evidence it is concluded that the present project area would not have become part of any other public or donor financed reforestation program (as indicated in C.6 of the PDD and World Bank project).	C.6	<u>Project Team, 12. Dec 2008:</u> As description in PDD section C.6, some project counties under the World Bank loan project, i.e., the Guangxi Integrated Forestry Development and Conservation Project (GIFDCP), have withdrawn from the project. To fulfil the GIFDCP goal, Guangxi Forestry Department held a meeting in Nov 2006 to discuss the possibility and preparation of a CDM AR project in Longlin, Tianlin and Linyun County, using loan left due to the withdrawal of GIFDCP counties. Please see attached CR_4-1 application for withdrawal from GIFDCP (six withdrawn counties) and CR_4-2 preparation meeting announcement. <u>Audit Team, 8. Feb 2009:</u>	☑



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		Documents have been provided explaining that some project countries have withdrawn from the World Bank loan, mainly for reasons of too high interest of the loan, unavailability to pay back. The request is therewith covered and closed.	
<u>Clarification Request No. 5.</u> Clarify in the PDD the type of evidence / sources that sustain the significance of the barriers (technological / institutional / market risk).	C.6	<p><u>Project Team, 12. Dec 2008:</u></p> <p>Two types of evidences are available to auditors:</p> <p>(1) Statement from local commercial bank, indicating that local bank will not provide the loan to finance the economical unattractive reforestation in degraded lands and CDM project, which can generate stable carbon revenue, will be an incentive to local bank to support the reforestation activities. see attached CR_5 file.</p> <p>(2) A picture (Added in PDD Section C.6) indicating poor growth of plantation established by farmers which serves as evidence of technical barrier</p> <p><u>Audit Team, 8. Feb 2009:</u></p> <p>Three statements from local commercial bank are provided.</p> <ul style="list-style-type: none"> - A picture of a forest plot is not considered sufficient evidence for technical barrier. Provide and reference evidence to sustain the barrier, or exclude this barrier. - institutional barrier: Provide and reference adequate evidence to sustain the barrier, or exclude this barrier. - market risk: Provide and reference adequate evidence to sustain the barrier, or exclude this barrier. <p><u>Project Team, 22. Feb 2009:</u></p> <p>Data from national forestry inventory have been included in PDD (table C-5) to demonstrate the technical barrier. Institutional barrier and market risk have been removed from PDD.</p> <p><u>Audit Team, 8. March 2009:</u></p> <p>The documentation on inventory is considered relevant. The average volumes of forests in community hands of less than half of the volumes of forests in state hands may be seen as indicator for technical and other management related difficulties. The audit team considers the barrier sufficiently documented. The investment barrier is the main barrier for the project. The request is therewith covered and</p>	☑



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		closed.	
<u>Clarification Request No. 6.</u> In order to increase transparency and fully trace the financial analysis, indicate the relevant references on the key costs and incomes values used in the calculation (e.g. as comment in updated excel table) and provide the corresponding sources (Models and Costs Analysis Report 2005 and further documents, if applicable).	C.6	<p><u>Project Team, 12. Dec 2008:</u></p> <p>(1) Parameters in PDD table C-6 were based on Models and Costs Analysis Report 2005 prepared for GIFDCP (see attached CR_6 for the report) and adjusted (labour cost, seedlings cost, fertilizer cost) based on inflation in last two years and specific techniques for plantation establishment and forest management of the proposed project.</p> <p>(2) Costs for logging, transportation, management, seedling and protection in PDD table C-7 were based on survey in the project areas. The price was the mean price in the last 3 years based on the survey in the project area.</p> <p><u>Audit Team, 8. Feb 2009:</u></p> <p>A document "Cost Analysis and Mode of Timber Plantation Afforestation was provided"</p> <ul style="list-style-type: none"> - Costs and prices are not given in the document, but in annex 4 of the document, which was not provided. Please provide the document including the annex. - Reference and evidence for price of seedlings, fertilizer, labour costs, pesticides, equipment and infrastructure, and timber prices for the different species shall be provided in order to sustain the figures given in the PDD table C5 and C6. <p>Note that all calculations included to the WB spreadsheet need to be fully traceable and sustained with evidence.</p> <p><u>Project Team, 22. Feb 2009:</u></p> <p>Please see attached "Cost Analysis and Mode of Timber Plantation Afforestation" (See attached CR_6-1) that includes Annex 4 (costs and prices). The costs and prices were updated based on survey in 2007. The trend of rising cost and price can be demonstrated by the request for cost adjustment submitted to the World Bank by Guangxi Project Management Office in 2008 (see attached CR_6-2).</p> <p><u>Audit Team, 8. March 2009:</u></p> <p>The costs are sufficiently sustained and the input to other financial calculations is traceable.</p>	☑
<u>Clarification Request No. 7.</u>	C.7	<p><u>Project Team, 12. Dec 2008:</u></p>	



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
<p>Clarify in the PDD the sources of the main values applied for BEF, WD, CF; Rj, also for baseline estimates and document the compliance of the choice in priority from local to IPCC values (in line with indications for ex-ante actual net changes in D.1) Compare also section in checklist on data available at validation.</p>		<p>These detail method for estimating baseline net removals by sinks has been described in Annex 3 and the main values and their sources applied for BEF, WD, CF; Rj has been documented in Section D.1 table D-1.</p> <p><u>Audit Team, 8. Feb 2009:</u></p> <p>A list with figures for BEF, CF, D and R is provided in section D1 for ex-ante removal calculation.</p> <p>- Clarify which BEF, D and R have been used for each stratum (hardwood, softwood) to determine the baseline carbon stocks. (Annex 3 describes the dominant species per strata but no BEF, D and R are given for the species)</p> <p><u>Project Team, 22. Feb 2009:</u></p> <p>Note at the bottom of table D-1 has been added to clarify that the values for Choerospondias axillaries and Sweetgum are mean values for softwood, and value for Schima are mean values for hardwood, so they were used for softwood and hardwood in the estimate of the baseline net removals by sinks.</p> <p><u>Audit Team, 8. March 2009:</u></p> <p>The additional clarifications have been provided. Data used for BEF, WD, CF; Rj and baseline estimates are referenced in the PDD.</p>	<p>☑</p>
<p><u>Clarification Request No. 8.</u></p> <p>The audit team noted that the allometric equations are developed from stands on average sites within a larger region. The sites of this particular project area are considered to be degraded. Clarify if the site conditions are “under-average” and if the use of the current equations is conservative (also for Eucalyptus).</p>	<p>D.1</p>	<p><u>Project Team, 12. Dec 2008:</u></p> <p>The growth rate of plantations to be established in the proposed A/R CDM project activity will not be “under-average” because:</p> <ol style="list-style-type: none"> (1) The allometric equations were developed from data of existing plantation that were collected from national and provincial forest inventory. The inventory data came from permanent sampling plots that were systematically distributed and represent the average level of a wide range of growth conditions. (2) Forestry farms usually have high capacity in forest establishment (including high quality seedlings, site and soil preparation, timely and high quality weeding and forest management and protection including fire and disease control), and forest established by forestry farms usually grow at a rate above average level. However, existing plantations were established largely by farmers. Due to the lack of technologies on forest establishment and manage- 	<p>☑</p>



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		<p>ment, forests established by farmers usually have a poor growth rate (much lower than average level). The high growth rate of forests established by forestry farms is off-set by poor growth rate of forests established by farmers.</p> <p>(3) Techniques for forest establishment and forest management have been improving largely in last 10 years, including national and local plantation management standard update and improved seed and seedling. This infers that previously established plantations grow at a lower rate than plantations to be established at similar site conditions.</p> <p>(4) For the proposed A/R CDM project activity, as most recent techniques and updated technical standards will be applied, and local government and operating entities will provide technical assistance to farmers. At the same time intense supervision will be implemented by local governments. These measurements will ensure the high quality of plantation to be established and managed.</p> <p>Therefore, the equation used in the PDD is conservative.</p> <p><u>Audit Team, 8. Feb 2009:</u></p> <p>The audit team considers that best available growth data was considered for the calculation of ex-ante removals. In addition a conservative deduction from regular increment data was done (see calculation files). Request covered and closed</p>	
<p><u>Clarification Request No. 9.</u></p> <p>Clarify and document in the PDD the legal context which defines EIA requirements and compliance for the project activity. Clarify why the processes and documents on GIFDCP also apply to this CDM activity.</p>	F.2	<p><u>Project Team, 12. Dec 2008:</u></p> <p>PDD section F.2 has been revised to address the clarification request. For the proposed AR CDM project, Guangxi Environment Agency has assessed and issued an EIA ratification, which indicates that the proposed AR CDM project can be considered as adjustments of the GIDCP. As the negative environment impacts of the plantation established is, in general, similar and even this adjustment will reduce the project negative environment impact, therefore, the EIA for GIFDCP is also apply to this project. Please see attached CR_9-1 for approval of GIDCP EIA and CR_9-2 Approval of AR CDM project EIA.</p> <p><u>Audit Team, 8. Feb 2009:</u></p>	☑



Validation Report clarifications and corrective action requests	Ref. to Table 1 and 2	Summary of project owner response	Validation team conclusion
		Documents on EIA have been submitted and section F2 adopted.	
<u>Clarification Request No. 10.</u> As per VVM (EB 44) requirements, document how it is assured that the verifications do not systematically coincide with peaks in carbon stocks.	D	<u>Project Team, 12. Dec 2008:</u> This has been demonstrated by Table D-3 and Table E-2. Table D-3 shows that all the years of verifications are not the peak of the carbon stock, and Table E-2 indicates that verifications do not coincide with thinning and harvesting. <u>Audit Team, 8. March 2009:</u> The approach to avoid systematic coincidence of verifications with peaks in carbon stocks is credible. The evaluation of this aspect also depends on the definition of the first verification. Request is covered and closed.	☑

Annex 2: Information Reference List

Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or sub-mission date	Additional Information (Relevance in CDM Context)																
1.	UNFCCC	Consolidated afforestation and reforestation baseline and monitoring methodology AR-ACM0001 "Afforestation and reforestation of degraded land"																		
2.	Project Participants	Project Design Document (PDD), GSP Version: Version 01, Final Version: Version 6.0	GSP version 01: 12 May 2008 Final version 06: 12 Jan 2010	PDD																
3.	UNFCCC	Tools as listed in the methodology AR-ACM0001 version 03																		
4.		On-site audit carried out during on 6-11 July 2008 Validation team: Martin Schröder TÜV SÜD Industrie Service GmbH ATL Thorsten Späth TÜV SÜD Industrie Service GmbH GHG-Auditor Szu-Yin Lin Chinese forestry specialist (as local assistant to the audit team) Persons interviewed during the on-site audits (Name, Institution, Position) <table><tr><th>Name</th><th>Organisation</th></tr><tr><td>Liu Zheng Chun</td><td>Secretary of CPC Sub-branch</td></tr><tr><td>Liu Jin</td><td>The World Bank</td></tr><tr><td>Wu Zhimin</td><td>Guang Xi Forestry Bureau Project Office</td></tr><tr><td>Li Zhishuang</td><td>Guang Xi Long Lin County Forestry Development Co. Ltd.</td></tr><tr><td>Li Fufu</td><td>Guang Xi Forestry Bureau Project Office</td></tr><tr><td>Mo Zhuping</td><td>Guang Xi Forestry Inventory & Designing Institute</td></tr><tr><td>Xiaoquan Zhang</td><td>Chinese Academy of Forestry</td></tr></table>	Name	Organisation	Liu Zheng Chun	Secretary of CPC Sub-branch	Liu Jin	The World Bank	Wu Zhimin	Guang Xi Forestry Bureau Project Office	Li Zhishuang	Guang Xi Long Lin County Forestry Development Co. Ltd.	Li Fufu	Guang Xi Forestry Bureau Project Office	Mo Zhuping	Guang Xi Forestry Inventory & Designing Institute	Xiaoquan Zhang	Chinese Academy of Forestry	6-11 July 2008	Interviews conducted during the desk session and field assessment.
Name	Organisation																			
Liu Zheng Chun	Secretary of CPC Sub-branch																			
Liu Jin	The World Bank																			
Wu Zhimin	Guang Xi Forestry Bureau Project Office																			
Li Zhishuang	Guang Xi Long Lin County Forestry Development Co. Ltd.																			
Li Fufu	Guang Xi Forestry Bureau Project Office																			
Mo Zhuping	Guang Xi Forestry Inventory & Designing Institute																			
Xiaoquan Zhang	Chinese Academy of Forestry																			

Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or sub-mission date	Additional Information (Relevance in CDM Context)
		<div>He Sanzhong</div> <div>Project Management Office of Guang Xi</div> <div>In addition 14 farmer / local villagers were interview during the onsite visits (name records available in Chinese on the auditor's field sheets)</div>		
5.	Xiaoquan Zhang	PPT-presentation about proceedings in project planning and data collection	6 July 2008	
6.		Land use / land cover maps 1989 (also included in the PDD pages 33-35)		Eligibility
7.		(Exemplary) protocol sheets for socioeconomic survey, PRA and baseline survey		
8.		GIS files: Linyun land ID.shp, Longlin land ID.shp, Tianlin land ID.shp, final version submitted 25 Jan 2010	25 Jan 2010	GIS Boundary files
9.		Contracts about benefit sharing between forestry farm and villages / individual farmers and authorization agreement between Guangxi Longlin Forestry Development Company and four other forest farms or companies)		
10.		License and Registration letters of Guangxi Longlin Forestry Development Company Ltd.		
11.	Guangxi Forestry Bureau	"A survey Report of the Society Evaluation"	Dec 2007	
12.	Guangxi Forestry Bureau	"Monitoring Plan of Socio-economic Impacts on Community and Households"	Dec 2007	
13.	Forestry College of Guangxi University	"Biomass Survey Report of Existing Shrub & Herbaceous Vegetation on Afforestation Lands"	Nov 2007	
14.	Forestry College of Guangxi University et al.,	"Survey Report on Bio-diversity of Current Plant Community in Afforestation Area"	Nov 2007	
15.	by Animal Science & Technology College of Guangxi University et al.,	"Biodiversity Monitoring Plan"	Nov 2007	
16.		"Stand Category Evaluation Report", Guangxi Zhuang Autonomous Region Forestry Inventory & Planning Institute, Dec 2007 (<i>this report includes site and soils information</i>)		
17.	Guangxi Forestry Inventory & Plan-	"Management Plan"	May 2008	

Ref. No.	Author/Editor/Issuer	Title/Type of Document. Publication place	Issuance and/or submission date	Additional Information (Relevance in CDM Context)
	ning Institute			
18.	Guangxi Forestry Inventory & Planning Institute,	"Technical Training Projects"	May 2008	
19.	State Forestry Administration Beijing	"List of invasive species"		
20.		"State Technical Regulations for Afforestation/Reforestation: GB/T 15776-2006"	2006	
21.		"Standards for Seedling Qualification: GB 6000-1999"	1999	
22.		Carbon Finance Documents, meetings, prove for consideration of A/R-CDM before project start		
23.		Soil erosion maps of Guangxi Province, (from the 1980s)		
24.	Guangxi Chung Municipality Forestry Bureau	Stakeholder Invitation Letter	Sep 2006	Stakeholder Process (Sec. H)
25.	Guangxi Forestry Bureau	"BioCarbon Fund, Reforestation Project for Degraded Lands in Northwest Guangxi, Conceptual Document"	18 Jan 2007	
26.		Statement of local Rural Investment Bank concerning non-availability of loans for specific reforestation projects		
27.		Afforestation Statistics of Longlin, Lingyun and Tianlin County		Additionality
28.		Climate Change and Reforestation Information Leaflet, designed for and given to local farmers		
29.		MS Excel file "Ex ante estimate_09_01_18.zip" and update: Excel file: "LULUCFSequestrationInput_Total.xls"	18 Jan 2009 17 Sep 2009	Calculations of baseline vegetation and actual net removals
30.	Chinese DNA	Letter of Approval	December 2008	LoA
31.	Spanish DNA	Letter of Approval	14 May 2009	LoA

Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or sub- mission date	Additional In- formation (Relevance in CDM Context)
32.	TÜV SÜD	Field notes of the audit team	6-11 July 2008	
33.	IPCC	GPG Land Use Land Use Change and Forestry (LULUCF)	2003	
34.	NDRC et al.	Economic analysis methods and parameter for construction project (version 3). China Planning Press	2006	
35.	World Bank BioCar- bon Fund	PIN Financial Analysis spreadsheet developed by the. Excel file "PIN FinancialAnalysis- guanxi.xls"	17 Jan 2009	
36.	Longlin County Branch of Agricul- tural Development Bank of China	Statement on non-availability of funds	08 July 2008	Additionality
37.	Rural Credit Coop- eratives of Tianlin County	Statement on non-availability of funds	08 July 2008	Additionality
38.	Rural Credit Coop- eratives of Lingyun County	Statement on non-availability of funds	08 July 2008	Additionality
39.		Socio-economic profile in the project region, included to G.1 of the PDD		
40.		Approval GIDCP Environmental Impact Assessment	2005	EIA
41.		Approval project Environmental Impact Assessment	2008	EIA
42.		Technical Standard and Procedures of Forest Resources Inventory in Guangxi		
43.	Guangxi Forestry Design Institute. PMO of Guangxi Forestry Bureau.	Guangxi Integrated Forestry Development & Conservation Project. Cost Analysis and Mode of Timber Plantation Afforestation.	February 2006.	
44.		Report on Disbursement adjustment of Planting Unit Cost for Guangxi Integrated Forestry Development & Conservation Project.	21 Sept 2008.	
45.	Institute of Forest Ecology, Environ-	Database for Chinese GHG Inventory in Forestry Sector.		



Ref. No.	Author/Editor/ Issuer	Title/Type of Document. Publication place	Issuance and/or sub-mission date	Additional Information (Relevance in CDM Context)
	ment and Protec- tion, CAF.			
46.		State Technical Regulations for Establishing Environmental Service Forests: GB/T 18337.1-2001, GB/T 18337.2-2001, GB/T 18337.3-2001	2001	
47.		State Technical Regulations for Designing of Afforestation/Reforestation: LY/T 1607-2003	2003	
48.		State Technical Regulations for Forest Management: GB/T 15781-1995	1995	
49.		Technical Standard for Seedling Breeding: GB/T 6001-1985	1985	
50.		Technical Standard for Container Seedling Breeding: LY1000-1991	1991	
51.		Seed Certification Regulations (GB2772-1999)	1999	
52.		Technical regulations for forest harvest and regeneration		
53.		Technical Regulations for Chinese fir plantation in Guangxi		
54.		Technical Regulations for masson pine plantation in Guangxi		
55.		Technical Regulations for birch plantation in Guangxi		