VERIFICATION REPORT

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (IBRD) AS TRUSTEE OF THE BIOCARBON FUND

VERIFICATION OF THE REFORESTATION ON DEGRADED LANDS IN NORTHWEST GUANGXI

REPORT NO.BVC/CHINA-VR/8410/2012

REVISION NO.01

BUREAU VERITAS CERTIFICATION

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VERIFICATION REPORT

Date of first issue:	Organizational unit:
03/11/2012	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
The International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund	Ms. Tao Nuyi

Summary:

Bureau Veritas Certification has conducted the 1st periodic verification of Reforestation on Degraded Lands in Northwest Guangxi, CDM Registration Reference Number 3561, owned by Guangxi Longlin Forestry Development Company Ltd., which is located in Longlin County, Tianlin County and Lingyun County in the north-western Guangxi Zhuang Autonomouse Region, in southern China, and applying the methodology AR-ACM0001 ver. 5.2.0, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG removals, and consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in the validated and registered project design documents, the special change in the actual forestry situation compared to the registered PDD is identified as minor in nature according to “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents” (Version 02.0) (Annex 24, EB 66). Multiple-use forests are established on degraded lands being essential for anthropogenic GHG removals by sinks. The monitoring system is in place and the project is generating net anthropogenic GHG removals by sinks. The net anthropogenic GHG removals by sinks are calculated without material misstatements, and the net anthropogenic GHG removals by sinks verified totalize 35,742 tons of CO_2e for the monitoring period.

Our opinion relates to the projects' actual net GHG removals by sinks and resulting net anthropogenic GHG removals by sinks is reported and related to the valid and registered project baseline, monitoring plan and its associated documents.

Reporting period:	01/01/2008 to 30/06/2012
Baseline net GHG removals by sinks:	2,116.5 t CO_2 equivalents.
Actual net GHG removals by sinks:	37,858.9 t CO_2 equivalents.
GHG emissions due to leakage:	0 t CO_2 equivalents.
Net anthropogenic GHG removals by sinks:	35,742 t CO_2 equivalents.

Report No.:	Subject Group:
BVC-China/VR8410/2012	CDM

Project title:

Reforestation on Degraded Lands in Northwest Guangxi

Work carried out by:

Mr. Liao Ling - Team Leader
Ms. Coco Geng Yan - Team Member

Internal Technical Review carried out by:

Mr. Peter Huang Qin Internal Technical Reviewer
Mr. Yang Jiaming Specialist

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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
MRR	Monthly Reading Record
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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1. INTRODUCTION

The International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund has commissioned Bureau Veritas Certification to verify the emissions reductions of its CDM project Reforestation on Degraded Lands in Northwest Guangxi (hereafter called "**the Project**") at Longlin County, Tianlin County and Lingyun County in the north-western Guangxi Zhuang Autonomouse Region, in southern China.

This report summarizes the findings of the verification of the Project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1. Objective

The objective of CDM verification is to conduct a thorough, independent assessment of the registered project activities.

In carrying out its verification work, the DOE shall ensure that the project activity complies with the requirements of paragraph 62 of the CDM modalities and procedures. In particular, this assessment shall:

(a) Ensure that the project activity has been implemented and operated as per the registered PDD or any approved revised PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;

(b) Ensure that the monitoring report and other supporting documents provided are complete in accordance with latest applicable version of the completeness checklist for requests for issuance of CERs, verifiable, and in accordance with applicable CDM requirements;

(c) Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan or any revised approved monitoring plan, and the approved methodology including applicable tool(s);

(d) Evaluate the data recorded and stored as per the monitoring methodology including applicable tool(s).

1.2. Scope

The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG removals. The verification is based on the validated and registered project design document, the monitoring report, emission reduction calculation spreadsheet, and supporting documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

1.3. GHG Project Description

The A/R CDM project activity, Reforestation on Degraded Lands in Northwest Guangxi, has been under implementation since 2008 in the Guangxi Zhuang Autonomous Region of China. The afforestation and reforestation (A/R) activities has been implemented to achieve multiple objectives of restoring the degraded areas, including soil, water and biodiversity conservation and poverty alleviation. The Project planned to establish 8671.3 ha of multiple-purposes forests on degraded lands in Longlin, Tianlin and Lingyun Counties of Guangxi Zhuang Autonomous Region in China. Major species and reforestation models include 1185.1 ha of masson pine (*Pinus massoniana*), 863.2 ha of Chinese fir (*Cunninghamia lanceolata*), 3112.1ha of Shiny-bark birch (*Betula luminifera*), 121.4 ha of *Choerospondias axillaries*, 929 ha of masson pine and Schima (*Schima wallichii*) mix forest, 408.7 ha of masson pine and Sweetgum (*Liquidambar formosana*) mixed forest, 1403.5 ha of eucalyptus and 648.3 ha of Flous (*Taiwania flous*). It is expected that the A/R CDM project activity will produce 1,746,158 tCO_2-e of tCERs at an annual average of 87,308 tCO_2e over the first 20-year crediting period.

Project title:	Reforestation on Degraded Lands in Northwest Guangxi
UNFCCC ref number:	3561
Registration Date:	15/09/2010
Crediting Period:	01/01/2008 to 31/12/2027 (renewable)
Monitoring Period:	01/01/2008 to 30/06/2012
Project Participants	Guangxi Longlin Forestry Development Company Ltd. **(Host Party: China)** The International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund; Kingdom of Spain - Ministry of Agriculture, Food and Environment and Ministry of Economy and Competitiveness; Zeroemissions Carbon Trust, S.A. (**Spain**) Government of Ireland-Department of the Environment, Community and Local Government (**Ireland**) Syngenta Foundation for Sustainable Agriculture (**Switzerland**)
Methodologies used	AR-ACM0001/ Vers. 03 (applied in PDD), AR-ACM0001 ver. 5.2.0 (applied in MR)
Location of the Project:	Longlin County, Tianlin County and Lingyun County in the north-western Guangxi Zhuang Autonomouse Region, in southern China
Geo coordinates::	Detailed Geo coordinates of the sites please refer to the MR.
UNFCCC view page:	http://cdm.unfccc.int/Projects/DB/TUEV-SUED1269622804.39/view

1.4. Verification Team

The assessment team and internal technical reviewer team consist of the following personnel:

FUNCTION	NAME	TA 14.1	TASK PERFORMED*
Team Leader	Mr. Liao Ling	☐	☒**DR** ☒**SV** ☒**RI** ☐**TR**

Team Member	Ms. Coco Geng Yan	☒	☒**DR** ☒**SV** ☐**RI** ☐**TR**
Technical Specialist	N/A	☐	☐**DR** ☐**SV** ☐**RI** ☐**TR**
Internal Technical Reviewer (ITR)	Mr. Peter Huang Qin	☐	☐**DR** ☐**SV** ☐**RI** ☒**TR**
Specialist supporting ITR	Mr. Yang Jiaming	☒	☐**DR** ☐**SV** ☐**RI** ☒**TR**

*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review

2. METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 03.0 of the Clean Development Mechanism Validation and Verification Standard, issued by CDM Executive Board at its 70th meeting on 23/11/2012 /7/. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

The completed verification protocol is enclosed in Appendix A to this report.

2.1. Review of Documents

The assessment of the project documentation provided by the project participant is based upon both quantitative and qualitative information on GHG removals. Quantitative information comprises the reported numbers in the monitoring report (MR) version 02 dated 16/10/2012 /4/ and emission reduction calculation spreadsheet version 02 dated 16/10/2012 /5/. Qualitative information comprises information on internal management controls, calculation procedures, procedures for transfer of data, frequency of emissions reports, and review and internal audit of calculations.

The monitoring report version 1.0 submitted by the project participant was also web hosted on the UNFCCC-CDM web site on 10/07/2012 and thus, was available in the public domain.

In addition to the monitoring documentation provided by the project participants, the DOE reviews:

(a) The registered PDD and the monitoring plan /1/;

(b) The validation report /2/

(c) The applied monitoring methodology (Ref-1 and Ref-2);

(d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board /7/, Ref-3~ Ref-11, ;

(e) Other information and references relevant to the project activity's resulting net GHG removals (e.g. IPCC reports, laboratory analysis or national regulations) /8/.

2.2. Follow-up Interviews

During 23/07/2012 to 31/07/2012, Bureau Veritas Certification performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Guangxi Longlin Forestry Development Company Ltd., Guangxi forestry bureau, local forestry bureaus of Longlin, Tianlin and Lingyun Counties, The International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund and Institute of Forest Ecology and Environment, the Chinese Academy of Forestry were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
1. Guangxi Longlin Forestry Development Company Ltd. (the Project Owner) 2. Guangxi forestry bureau 3. Local forestry bureaus of Longlin, Tianlin and Lingyun Counties 4. The International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund (the Buyer)	1. Project Design and implementation 2. Technical equipment, calibration and operation 3. Monitoring Plan and management procedures 4. Monitoring data 5. Data uncertainty and residual risks (QA/QC) 6. GHG Calculation 7. Environmental Impacts 8. Compliance with National Laws and Regulations
Institute of Forest Ecology and Environment, the Chinese Academy of Forestry (the Consultant)	9. Monitoring Plan 10. Monitored data and Monitoring Report 11. GHG Calculations

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to resolve issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve net GHG removals or influence the monitoring and reporting of net GHG removals prior to Bureau Veritas Certification's positive conclusion on the GHG emission reduction calculation.

Findings established during the verification can either be seen as a non-fulfillment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality net GHG removals is identified.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

(a) Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;

(b) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;

(c) Mistakes have been made in applying assumptions, data or calculations of net GHG removals that will impact the quantity of net GHG removals;

(d) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A Forward Action Request (FAR) is raised, for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

2.4. Internal Technical Review

The verification report underwent an Internal Technical Review (ITR) before requesting issuance of CERs for the project activity.

The ITR is an independent process performed to examine thoroughly that the process of verification has been carried out in conformance with the requirements of the verification scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the verification report to the reviewer, including any necessary verification documentation. The reviewer reviews the submitted documentation for conformance with the verification scheme. This will be a comprehensive review of all documentation generated during the verification process.

When performing an Internal Technical Review, the reviewer ensures that:

- The verification activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the verification exercise, review of sample documents.

The reviewer may raise Clarification Requests to the verification team and discusses these matters with Team Leader.

After the agreement of the responses on the Clarification Requests from the verification team as well as the PP(s), the finalized verification report is accepted for further processing such as uploading via the UNFCCC interface.

3. VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in **3** CARs and **8** CLs.

The CLs and CARs were closed based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVS paragraph.

3.1. Remaining issues from validation or previous verification (213)

All CARs and CLs raised were successfully closed during the validation stage of the Project, no remaining issues were left.

3.2. Compliance of the project implementation with the registered project design document (228)

Bureau Veritas Certification has performed a site visit and found that the Project has been implemented since 2008. On the basis of this site visit and the reviewed project documentation it can be confirmed that, the realized plantation set up, the multiple-use forests, as well as the monitoring system, metering equipment and the monitoring procedure have been implemented and managed as described in the registered PDD.

Adverse climate events such as snow/ice storms and droughts damaged significant area of the project. The snow/ice storms in early 2008 damaged 429.7 ha of plantation. 645.8 ha plantation were suffered from severe drought in 2010-2011. All these damaged young plantation had to be replanted. The re-established area again suffered from the snow/ice storms or drought, there are 1,822.2 ha out of 8,671.3 ha estimated planting area that were not planted or will not be planted, the GHG removals by sinks of these areas will not be claimed. Bureau Veritas Certification has checked the comparison of the boundary of the Project and confirmed the conservativeness of this approach.

[Post-registration Changes]

Minor changes stipulated by EB 66 Annex 24 (former EB 63 Annex 27) that do not need prior approval by the board have been identified and addressed through the verification stage (Ref-3 and Ref-8).

Following minor changes have been found in the project implementation and monitoring system that lead to post registration changes without prior approval:

PDD	Minor change in MR	Assessment of minor change
8,671.3ha to be planted;	About 4,670.8ha was planted and 2,178.3 ha will continue to be planted in the second monitoring period. Therefore, 1,822.2ha of the project area was not planted or will not be planted.	This change is covered under **EB66 Annex 24 (a)**. The 1,822.2ha which is not planted of the Project will be considered as 0 ER and excluded of the ER calculation in future. Additionality is not affected in an adverse manner by this change as planting has been carried out and re-planting would produce extra costs and less cash inflow.
Estimated species composition as per initial planting	Due to the specific poor site conditions and adverse climate change in local region, replanting species have been changed.	This change is covered under **EB66 Annex 24 (b)**. Additionality is not affected in an adverse manner by this change as initial planting has been carried out and re-planting would produce extra costs and less cash inflow.
Estimated timing of silvicultural operations.	Due to replanting schedule for silvicultural operations needed to be adopted.	This change is covered under **EB66 Annex 24 (d)**: Additionality is not affected in an adverse manner by this change as initial planting has been carried out and re-planting would produce extra costs and less cash inflow.
Stratification (6 strata)	Re-stratification (18 strata)	This change is covered under **EB66 Annex 24 (k)** and by the methodology: Additionality is not affected in an adverse manner by re-stratification of the area as it has no monetary value influencing
Number of sample plots	Re-calculated no. of sample	This change is covered under

(236) and allocation to stratum.	plots (158) due to re-stratification and planted species change	**EB66 Annex 24 (m)** The type of sample plots keeps the same with the baseline scenario as permanent, additionality is not affected in an adverse manner by re-stratification and change of number and allocation of sample plots of the area as it has no monetary value influencing the financial analysis.
Changes in the project boundary	Due to 1,822.2ha will be not planted, and all actual project boundary fall within the project boundary designed in registered PDD	This change is covered under **EB66 Annex 24 (o)**: The changes to project boundary as a consequence of reduction in project area are consistent with the baseline identification and additionality demonstration at the validation stage.
QA/QC procedures	Only small changes in line with the national forest inventory procedures	This change is covered under **EB66 Annex 24 (o)** Additionality is not affected in an adverse manner by changing QA/QC procedures as it has no monetary value influencing the financial analysis.
Applied methodology and related tools	The projects adopts the latest versions of AR-ACM0001 ver.05.2.0	This change is covered under **EB66 Annex 24 (t)** Additionality is not affected and the ER calculation of the Project is estimated conservatively according to latest methodology and tools.

All the above mentioned minor changes do not affect adversely the additionality justification of the project. All issues that could have an effect on the financial analysis would lead to a decrease of the IRR as they have to be accounted on the cost site rather than on the benefit site.

[Application of specified versions of A/R CDM methodologies]

Since AR-ACM0001 version 03 applied in the registered PDD contain requirements that were withdrawn during revisions/improvements of the methodology. According to EB 63 annex 26, a registered A/R CDM project activity can apply, at the time of verification, the improvements in the methodology that occurred after the date of registration of the project activity, therefore, following guidelines have been applied to reflect the improvements in AR-ACM0001 version 05.2:

Requirement	Guideline	Applied in Monitoring
Sampling design, sample plot lay-out, and marking of permanent sample plots	(i) Use of temporary sample plots; (ii) Random lay-out of sample plots; (iii) A maximum allowable relative margin of error of the mean, for estimation of aboveground tree biomass, of ± 10% at 90% confidence level; shall be allowed.	A 90% confidence level has been applied in line with this guideline.
Accounting for uncertainty	Requirements related to "uncertainty assessment", "uncertainty analysis", "methods of combining uncertainties", and "uncertainty in expert judgement" are superfluous and compliance with these requirements shall not be enforced.	The PP did not carry out an uncertainty analysis as allowed under these guidelines.

The implementation of plantations took place from August 1st 2008 to 2012, as there was heavy snow/ice storm in early 2008 and severe drought from 2009 to 2011, replanting of unsuccessful plantations took place for almost 1075.5ha. As a result, 4,670.8ha of multiple-use forests have been established on degraded lands in Longlin County, Tianlin County and Lingyun County of Guangxi Province. 2,178.3ha of forests in its preparation and will be established in the second monitoring period, and 1,822.2 ha of the project area was not planted or will not be planted /10//11/.

The planting was done as described in the PDD. *Pinusmassoniana* (3,259.4 ha), *Cunninghamialanceolata* (2,071.0 ha), *Taiwaniaflous* (156.7 ha), *Eucalyptus* sp. (359.4 ha), *Betulaluminifera* (884.3 ha), and *Choerospondias axillaries*(115.3 ha). *Schima wallichii* and *Liquidambar formosana* are not planted due to poor soils and hard growth conditions /10//11/.

During the site visit records of different Forest Compartments have been observed. The recorded data are recorded containing the following information: Serial Numbers of the Forest Compartments, surface area, type of soil preparation, planting year, re-planting if necessary, planting density, main species planted and whether the sites belongs to the CDM project. This database is decentralized and embedded in the data management system of each local forestry bureau of the three counties.

[Management and Operation]

The PP has operated the Project as per the registered PDD. The monitoring organization has been set up and all staffs involved in the Project (plantation and forestry management) have been trained. The species are planted and managed strictly in line with the national/ local technical and regulatory standards (S-01 ~ S-13), the monitoring of the Project carried out by a independent third party of Guangxi Forestry Designing Institute and the monitoring equipments calibrated according to national regulations before the field measurement (/14/ ~ /16/).

✌ Corresponding to the paragraph 228 of VVS version 02.0, Bureau Veritas Certification can confirm that:

- The implementation of the Project is consistent with the registered PDD.
- The Project is operated as per the registered PDD by the PP.
- Information (data and variables) provided in the monitoring report that is different from that stated in the registered PDD is reported.

3.3. Compliance of the monitoring plan with the monitoring methodology including applicable tool(s) (232)

The verification team has verified the monitoring plan, including the data and parameters required to be monitored, measurement procedures, monitoring frequency and QC/QA procedures as described in the registered PDD.

✌ Corresponding to the paragraph 232 of VVS version 02.0, Bureau Veritas Certification can confirm that the monitoring plan is in accordance with the approved methodology including applicable tool(s) applied by the Project.

3.4. Compliance of monitoring activities with the monitoring plan (235-236)

Monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD.

[Parameters and information flow]

The parameters required by the monitoring plan and how Bureau Veritas Certification has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) and appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures for all relevant monitoring parameters including the values in the monitoring report are described below:

Parameters monitored:

(1) $A_{p,i}$, Area of sample *p* in stratum *i*; Field measurement per five years, measured by the GPS+ PDA, Compass and metric tape, PVC pipe/rod, the measured value of the GPS+

PDA are cross-checked with the measured and calculated value based on the Compass and metric tape, PVC pipe/rod.

(2) $A_{BSL,i}$, Area of baseline stratum *i;* Field measurement per five years, measured by the GPS, the date are cross-checked with the values in the registered PDD.

(3) A_i, Area of stratum *I*; Field measurement per five years, measured by the GPS, the date are cross-checked with the values in the GIS sourced from the local forestry government.

(4) A_S, Area of stratum *burned;* Field measurement at the time of site preparation, measured by the GPS,

(5) *DBH, the diameter at breast height of the tree (1.3 m);* Field measurement per five years, measured by the Vinyl tape, wooden stake.

(6) *H, Height of tree;* Field measurement per five years, measured by the HypsometerCGQ-1 and metric tape.

All the field measured data are measured at the sample plot according to the sampling plan, recorded by the forestry technician of the Guangxi Forestry Designing Institute and PP for a hard copy, and then the data are collected and recorded for an electronic copy with the combination of the maps for the ERs calculation. All the measured data and calculation process are provided and verified (/11/ & /12/).

Parameters determined ex-ante:

(1) $BEF_{2,j}$, Biomass expansion factor for conversion of stem biomass to above-ground biomass for tree species j, default value of the GHG inventory in LULUCF sector for national communication on GHG inventory;

(2) D_j, Basic wood density for tree species *j,* default value of the GHG inventory in LULUCF sector for national communication on GHG inventory;

(3) R_j, Root-shoot ratio for tree species *j,* default value of the GHG inventory in LULUCF sector for national communication on GHG inventory;

(4) $V_{TREE,j,p,i,t}$, Stem volume of trees of species j in sample plot p of stratum i at a point of time in year t, estimated by using the tree dimension(s) as entry data into a volume table or volume equation; default value of Guangxi forest inventory manual which is consistent with the national forest inventory guideline and are appropriate based on A/R Methodological Tool "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" (Version 01.0.0);

(5) CF_j, *carbon fraction of species j,* IPCC default value;

Bureau Veritas Certification conducted randomly re-measurement in each stratum of the Project during the site visit, and verified the initial yield measurement records provided by the PP/12/, cross-checked with the yield measurement results /13/ and found they are consistent with the data presented in the Monitoring Report.

- Corresponding to the paragraph 235 and 236 of VVS version 02.0, Bureau Veritas Certification can confirm that:

- The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD.

- All parameters required by the monitoring plan have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified by checking the whole information flow.

3.5. Compliance with the calibration frequency requirements for measuring instruments (243)

As the monitoring equipments are special for the forestry project, the registered monitoring plan didn't requires calibration of the measuring instruments in details, but the monitoring implemented in compliance with the calibration frequency requirements according to QA/QC procedures contained in the registered PDD and the national requirement and/or the manual of the instruments.

During this monitoring period, the used measuring instruments have been operating well and were duly calibrated before the field measurement. The last calibration date is 08/05/2012 for all the measuring instruments, detailed information listed as Table below:

Instruments	Accuracy	Calibration Frequency	Last Calibration	Validity
GPS+ PDA	1-5 m	calibration before field measurement	08/05/2012	Yes
Compass	5’	calibration before field measurement	30/06/2012	Yes
HypsometerCGQ-1	1%	calibration before field measurement	08/06/2012	Yes
Metric tape	N/A	N/A	N/A	N/A
Vinyl tape	N/A	N/A	N/A	N/A
wooden stake	N/A	N/A	N/A	N/A
field map	N/A	N/A	N/A	N/A

- Corresponding to the paragraph 243 of VVS version 02.0, Bureau Veritas Certification can confirm that:

- The calibration is conducted at the frequency as specified by the methodology and the monitoring plan contained in the registered PDD.

3.6. Assessment of data and calculation of net anthropogenic GHG removals by sinks (225)

3.6.1. Special events

As adverse climate events such as snow/ice storms and droughts damaged significant area of the project. The snow/ice storms in early 2008 damaged 429.7 ha of plantation. 645.8 ha plantation were suffered from severe drought in 2010-2011. All these damaged young plantation had to be replanted. The re-established area again suffered from the snow/ice storms or drought, there are 1,822.2 ha out of 8,671.3 ha estimated planting area that were not planted or will not be planted, the GHG removals attributed by these areas are considered as 0 tCO_2e, and only the planted areas of 6,849.1ha are used for net anthropogenic GHG removals calculation. Bureau Veritas Certification checked the comparison of the boundary of the Project and confirmed the 0 GHG removals of the 1,822.2 ha is conservative.

3.6.2. Sampling plan

According to A/R Methodological Tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” (Version 02.1.0) Ref-5, the 90% confidence level and a default value equal to 10% of the mean biomass stock was used as the acceptable margin of error, set the sample plots as 50 ha based on expert judgement, the number of sampling plots is calculated as below:

$$n = \frac{N \cdot t_{VAL}^2 \cdot (\sum_i w_i \cdot s_i)^2}{N \cdot E^2 + t_{VAL}^2 \cdot \sum_i w_i \cdot s_i^2}$$

$$n_i = n \cdot \frac{w_i \cdot s_i}{\sum_i w_i \cdot s_i}$$

Where:

n	Number of sample plots required for estimation of biomass stocks within the project boundary, dimensionless
n_i	Number of sample plots allocated to stratum *i* for estimation of biomass stocks within the project boundary, dimensionless
t_{VAL}	Two-sided Student’s t-value, at infinite degrees of freedom, for the required confidence level; dimensionless

N	Total number of possible sample plots within the project boundary (i.e. the sampling space or the population); dimensionless
w_i	Relative weight of the area of stratum *i* (i.e. the area of the stratum i divided by the project area); dimensionless
s_i	Estimated standard deviation of biomass stock in stratum *i*; t d.m. ha^{-1}
E	Acceptable margin of error (i.e. one-half the confidence interval) in estimation of biomass stock within the project boundary; t d.m. ha^{-1}

And the total numbers of sample plots for the 6849.1ha are 158. To avoid subjective choice of plot locations (plot centres, plot reference points, movement of plot centres to more "convenient" positions) and to ensure that the sampling plots evenly spread in each stratum as much as possible, the permanent sample plots were laid out systematically with a random start.

3.6.3. Net anthropogenic GHG removals by sinks

A complete set of data for the specified monitoring period is available.

As per the methodology AR-ACM0001 ver. 5.2.0 and the registered PDD, the net anthropogenic GHG removals by sinks are calculated as the actual net GHG removals by sinks minus the baseline net GHG removals by sinks and total GHG emissions due to leakage. Hence the net anthropogenic GHG removals by sinks is determined by the following formula:

$$C_{AR-CDM} = \Delta C_{ACTUAL} - \Delta C_{BSL} - LK$$

Where,

C_{AR-CDM}	Net anthropogenic GHG removals by sinks; t CO_2-e
ΔC_{ACTUAL}	Actual net GHG removals by sinks; t CO_2-e
ΔC_{BSL}	Baseline net GHG removals by sinks; t CO_2-e
LK	Total GHG emissions due to leakage; t CO_2-e

[Baseline net GHG removals by sinks]

The baseline net GHG removals by sinks are fixed as the ex ante estimation, which is 2,116.5 tCO_{2e}. The value is the same with the registered PDD with the period 01/01/2008 to 30/06/2012, which is reasonable and conservative as the planted area are less than the estimated area in PDD.

[Net anthropogenic GHG removals by sinks]

According to AR-ACM0001 ver. 5.2.0, the actual net GHG removals by sinks can be calculated as actual GHG removals by sinks minus the project emission resulted by biomass burning.

1) Calculation of the actual GHG removals by sinks

The actual GHG removals by sinks includes three parts, estimation of biomass stock change in trees, carbon stock changes in shrub biomass and carbon stock changes in soil organic matter. The actual net GHG removals by sinks were estimated using the BEF method contained in the approved methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"(Version 02.1.0)

i. Estimation of biomass stock in trees

a) Volume equations (listed in Section D.1) used to convert measured DBH and height to stem volume of trees for each tree with sampling plot are sourced from the local forestry yield guideline which in line with the national guideline of China /16/.

b) Stem volume of each tree in sample plot was converted to above-ground tree biomass using basic wood density and biomass expansion factors, and the above-ground tree biomass was expanded to total tree biomass using root-shoot ratios. Thus, biomass of trees of species *j* in sample plot *p* is estimated as:

$$B_{TREE,j,p,i,t} = V_{TREE,j,p,i,t} * D_j * BEF_{2,j} * (1 + R_j)$$

where:

$B_{TREE,j,p,i,t}$	Biomass of trees of species *j* in sample plot *p* of stratum *i* at a point of time in year *t*; t d.m.
$V_{TREE,j,p,i,t}$	Stem volume of trees of species *j* in sample plot *p* of stratum *i* at a point of time in year *t*, estimated by using the measured DBH and height as entry data into a volume equation; m^3
D_j	Basic wood density of tree species *j*(listed in Section D.1); t d.m. m^{-3}
$BEF_{2,j}$	Biomass expansion factor for conversion of stem biomass to above-ground tree biomass, for tree species *j*(listed in Section D.1); dimensionless
R_j	Root-shoot ratio for tree species *j*(listed in Section D.1); dimensionless
j	*1, 2, 3,* … tree species in plot *p*
p	*1, 2, 3,* … sample plots in stratum *i*
i	*1, 2, 3,* … tree biomass estimation strata within the project boundary
t	*1, 2, 3, …* years counted from the start of the A/R CDM project activity

c) Tree biomass in sample plot *p* of stratum *i* was estimated as follows:

$$B_{TREE,p,i,t} = \sum_{j} B_{TREE,j,p,i,t}$$

where:

$B_{TREE,p,i,t}$	Tree biomass in sample plot *p* in stratum *i* at a given point of time in year *t*; t d. m.
$B_{TREE,j,p,i,t}$	Biomass of trees of species *j* in sample plot *p* of stratum *i* at a given point of time in year *t*; t d.m.
j	*1, 2, 3,* … species in plot *p*
p	*1, 2, 3*, … sample plots in stratum *i*
i	*1, 2, 3,* … strata used for tree biomass estimation within the project boundary
t	*1, 2, 3, …* years counted from the start of the A/R CDM project activity

d) Tree biomass per hectare in plot *p* in stratum i was estimated as follows:

$$b_{TREE,p,i,t} = \frac{B_{TREE,p,i,t}}{A_{p,i}}$$

where:

$b_{TREE,p,i,t}$	Tree biomass per hectare in sample plot *p* in stratum *i* at a given point of time in year *t*; t d.m. ha^{-1}
$B_{TREE,p,i,t}$	Tree biomass in sample plot *p*in stratum *i* at a given point of time in year *t*; t d.m.
$A_{p,i}$	Area of sample plot *p* in stratum *i*; ha
p	*1, 2, 3*, … sample plots in stratum *i*
i	*1, 2, 3,* … tree biomass estimation strata within the project boundary
t	*1, 2, 3, …* years counted from the start of the A/R CDM project activity

e) Mean tree biomass per hectare in stratum *i* and the variance of tree biomass per hectare in the stratum were estimated as follows:

$$b_{TREE,i,t} = \frac{\sum_{p=1}^{n_i} b_{TREE,p,i,t}}{n_i}$$

$$s_i^2 = \frac{n_i * \sum_{p=1}^{n_i} b_{TREE,p,i,t}^2 - \left(\sum_{p=1}^{n_i} b_{TREE,p,i,t} \right)^2}{n_i * (n_i - 1)}$$

where:

$b_{TREE,i,t}$	Mean tree biomass per hectare in stratum *i* at a given point of time in year *t*; t d. m. ha^{-1}
$b_{TREE,p,i,t}$	Tree biomass per hectare in sample plot *p* in stratum *i* at a given point of time in year *t*; t d.m. ha^{-1}
n_i	Number of sample plots in stratum *i*
s_i^2	Variance of tree biomass per hectare in stratum *i* at a given point of time in year *t*; (t d.m. ha^{-1})^2

f) Mean tree biomass per hectare within the project boundary and its variance were estimated as follows:

$$b_{TREE,t} = \sum_{i=1}^{M} w_i * b_{TREE,i,t}$$

$$s_{b_{TREE}}^2 = \sum_{i=1}^{M} w_i^2 * \frac{s_i^2}{n_i}$$

g)

where:

$b_{TREE,t}$	Mean tree biomass per hectare within the project boundary at a given point of time in year *t*; t d. m. ha^{-1}
w_i	Ratio of the area of stratum *i* to the sum of areas of biomass estimation strata; dimensionless
$b_{TREE,i,t}$	Mean tree biomass per hectare in stratum *i* at a given point of time in year *t*; t d. m. ha^{-1}
$s_{b_{TREE}}^2$	Variance of mean tree biomass per hectare within the project boundary at a given point of time in year *t*; (t d. m. ha^{-1})^2
s_i^2	Variance of tree biomass per hectare in stratum *i* at a given point of time in year *t*; (t d. m. ha^{-1})^2
n_i	Number of sample plots in stratum *i*
M	Number of tree biomass estimation strata within the project boundary

h) Margin of error of the mean tree biomass per hectare within the project boundary was estimated as:

$$e_{b_{TREE}} = t_{VAL} * s_{b_{TREE}}$$

where:

$e_{b_{TREE}}$	Margin of error of the mean tree biomass per hectare within the project boundary; t d. m. ha^{-1}
t_{VAL}	Two-sided Student's *t*-value for: (i) Degrees of freedom equal to *n – M*, where *n* is total number of sample plots within the project boundary, and *M* is the total number of tree biomass estimation strata; and (ii) The confidence level required by the methodology applying this tool (e.g. 90% or 95%); dimensionless. E.g. Two-sided Student's *t*-value for a probability value of 10% (which implies a 90% confidence level) and 140degrees of freedom can be obtained in Excel spreadsheet as "=TINV(0.10,140)" which returns a value of 1.6558
$s_{b_{TREE}}$	Square root of the variance of mean tree biomass per hectare within project boundary at a given point of time in year *t* (i.e. the standard error of the mean); t d. m. ha^{-1}

i) Carbon stock in tree biomass within the project boundary at a given point of time in year *t* was estimated as follows:

$$B_{TREE,t} = A * b_{TREE,t}$$

where:

$B_{TREE,t}$	Total tree biomass within the project boundary at a given point of time in year *t*; t d. m.
A	Sum of areas of the biomass estimation strata within the project boundary; ha
$b_{TREE,t}$	Mean tree biomass per hectare within the project boundary at a given point of time in year *t*; t d. m. ha^{-1}

j) Carbon stock in tree biomass within the project boundary at a given point of time in year *t* was estimated as follows:

$$C_{TREE,t} = \frac{44}{12} * B_{TREE,t} * CF_{TREE}$$

where:

$C_{TREE,t}$	Carbon stock in tree biomass within the project boundary at a given point of time in year *t*; t CO_2-e
$B_{TREE,t}$	Total tree biomass within the project boundary at a given point of time in year *t*; t d. m.
CF_{TREE}	Carbon fraction of tree biomass; t C t d.m.$^{-1}$ A default value of 0.50 is used unless transparent and verifiable information can be provided to justify a different value

As the Table E-2 carbon stock in project trees, the carbon stock in tree biomass are 38,419.5 tCO_2-e and the margin of error is 9.88% which is in the reasonable range, Bureau Veritas Certification conducted a randomly re-yield measurement of the sample plot in each Project strata (16 strata) and confirmed the measured value of the sample spot are true and reasonable, the calculation of the carbon stock is re-produced and correct.

2) *Carbon stock changes in living tree biomass of the project*

The rate of change of tree biomass over a period of time was calculated assuming a linear growth. Therefore, the rate of change in carbon stock in tree biomass over a period of time was calculated as follows:

$$dC_{TREE,(t_1,t_2)} = \frac{C_{TREE,t_2} - C_{TREE,t_1}}{T}$$ where:

$dC_{TREE,(t_1,t_2)}$	Rate of change in carbon stock in tree biomass within the project boundary during the period between a point of time in year t_1 and a point of time in year t_2; t CO_2e yr^{-1}
C_{TREE,t_2}	Carbon stock in tree biomass within the project boundary at a point of time in year t_2; t CO_2e
C_{TREE,t_1}	Carbon stock in tree biomass within the project boundary at a point of time in year t_1; t CO_2-e
T	Time elapsed between two successive estimations (T=t_2 – t_1); yr

For the first verification, the variable C_{TREE,t_1} in Equation (E.11) was assigned the value of carbon stock in the tree biomass at the start of the A/R CDM project activity, which is estimated 976.8 tCO_2 /6/.

Change in carbon stock in tree biomass within the project boundary in year t ($t_1 \leq t \leq t_2$) is calculated as follows:

$$\Delta C_{TREE,t} = dC_{TREE,(t_1,t_2)} * 1year$$ for $t_1 \leq t \leq t_2$ =(38,419.5-976.8)/4.5= 8,320.6 t CO_2-e

where:

$\Delta C_{TREE,t}$	Change in carbon stock in tree biomass within the project boundary in year t; t CO_2-e
$dC_{TREE,(t_1,t_2)}$	Rate of change in carbon stock in tree biomass within the project boundary during the period between a point of time in year t_1 and a point of time in year t_2; t CO_2-e yr^{-1}

3) *Carbon stock changes in shrub biomass*

The rate of change of shrub biomass over a period of time is estimated as follows:

$$dC_{SHRUB,(t_1,t_2)} = \frac{C_{SHRUB,t_2} - C_{SHRUB,t_1}}{T}$$

where:

$dC_{SHRUB,(t_1,t_2)}$	Rate of change in carbon stock in shrub biomass within the project boundary during the period between a point of time in year t_1 and a point of time in year t_2; t CO_2-e yr^{-1}
C_{SHRUB,t_2}	Carbon stock in shrub biomass within the project boundary at a point of time in year t_2; t CO_2-e
C_{SHRUB,t_1}	Carbon stock in shrub biomass within the project boundary at a point of time in year t_1; t CO_2-e
T	Time elapsed between two successive estimations (T=$t_2 - t_1$); yr

For the first verification, the variable C_{SHRUB,t_1} in Equation (E.13) was assigned the value of carbon stock in the shrub biomass at the start of the A/R CDM project activity (Table D.5above), that is: $C_{SHRUB,t_1} = C_{SHRUB\_BSL}$ for the for the first verification, where t_1 = 1 and t_2 =year of first verification. It was conservatively assumed that all pre-project shrub biomass was died out and emitted at the time of planting, that is: $C_{SHRUB,t_2} = 0$, thus change in carbon stock in shrub biomass within the project boundary in year t ($t_1 \leq t \leq t_2$) was **(0 – 26,973.3)/4.5 = –5,994.1**t CO_2e

4) *Carbon stock changes in soil organic matter*

Carbon stock changes in soil organic matter is estimated using the "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Ref-7).

The project activities comply with applicability conditions set in the tool and in the approved methodology applied as follows:

(a) The areas of land to which this tool applied are barren lands and belong to mineral soils that:

(i) Do not fall into wetland category as defined in Annex A: Glossary of IPCC, Good Practice Guidance for Land Use, Land-use Change and Forestry (IPCC, GPG-LULUCF);

(ii) Do not contain organic soils as defined in Annex A: glossary of the IPCC GPG LULUCF 2003;

(iii) Are not subject to any of the land management practices and application of inputs as listed in the Tables 1 and 2 of the tool;

(b) In the implementation of the A/R CDM project activity:

(i) Litter was not collected and remained on site;

(ii) Soil disturbance attributable to the A/R CDM project activity, if any, is in accordance with appropriate soil conservation practices, e.g.

- The holes dug during site preparation will be made following land contour;

- Limited to soil disturbance for site preparation before planting and such disturbance is not repeated in less than twenty years.

As per the Column L of spreadsheet calculation tool developed by the Executive Board following the "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities"(Ref-7), estimated carbon stock changes in soil organic matter is presented in Table below.

Carbon stock changes in soil organic matter

Year	Carbon stock changes ($tC.yr^{-1}$)	Carbon stock changes ($tCO_2.yr^{-1}$)	Cumulative carbon stock changes (tCO_2)
2008	0		0
2009	1,439.40	5,277.8	5,277.8
2010	2,177.75	7,985.1	13,262.9
2011	2,408.00	8,829.3	22,092.2
01/01/2012– J30/06/2012	1,444.72	5,297.3	27,389.5
Total	7,469.87	27,389.5	

Change in carbon stock in soil organic carbon within the project boundary in year *t* ($t_1 \leq t \leq t_2$) was calculated as follows:

$\Delta SOC_t = dSOC_{(t_1,t_2)} * 1year$ for $t_1 \leq t \leq t_2$ **= 27,389.5/4.5 =6,086.6**t CO_2e

where:

ΔSOC_t	Change in carbon stock in soil organic matter within the project boundary in year *t*; t CO_2-e
$dSOC_{(t_1,t_2)}$	Rate of change in carbon stock in soil organic matter within the project boundary during the period between a point of time in year t_1 and a point of time in year t_2; t CO_2-e yr^{-1}

Bureau Veritas Certification checked the calculation of the Carbon stock changes in soil organic matter and confirm it is correctly calculated.

5) *Project emissions*

The project emission is zero as there is no biomass burning during this monitoring period according to the Forest Compartment Records of the Project (/9/) checked against the Inventory Report of the Project issued by the third party "Guangxi Forestry Designing Institute" (/10/)

6) *Total GHG emissions due to leakage*

In accordance with the registered PDD, the potential leakage due to the implementation of the registered A/R CDM project activity is GHG emissions due to displacement of pre-project

grazing activity. However based on PDD section D-2 the leakage from the displacement of the pre-project grazing is nil. Monitoring of the pre-project livestock indicates that all the pre-project livestock were displaced to existing grassland outside the project boundary as those contained in PDD Section D-2. This met the condition (b)(ii) in the "Guidelines on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant" (Ref-12), therefore, the increase in emissions of greenhouse gases due to displacement of pre-project grazing activities attributable to the A/R CDM project activity is insignificant and is accounted as zero.

According to AR-ACM0001 ver. 5.2.0 and the EB51 Annex15 (Estimation of the increase GHG emissions attributable to displacement of pre-project agricultural activities), as there is no agricultural activities in the Project area (/11/), thus the total GHG emissions due to leakage of the Project is zero.

7) Net anthropogenic GHG removals by sinks

The net GHG removals during the monitoring period from 01/01/2008 to 30/06/2012 are calculated as:

$$\Delta C_{ACTUAL} = \Delta C_P - GHG_E$$

where:

ΔC_{ACTUAL}	Actual net GHG removals by sinks; t CO_2-e
ΔC_P	Sum of the changes the carbon stock in the selected carbon pools within the project boundary; t CO_2-e
GHG_E	Increase in non-CO_2 GHG emissions within the project boundary as a result of the implementation of the A/R CDM project activity; t CO_2-e

In which, the estimation of annual biomass stock change in trees are **8,320.6** tCO_2e, annual carbon stock changes in shrub biomass are **–5,994.1**tCO_2e and the annual carbon stock changes in soil organic matter are **27,389.5/4.5 =6086.6** tCO_2e.

The project emission is zero as there is no biomass burning during this monitoring period according to the Forest Compartment Records of the Project, thus GHG_E =0

$\Delta C_{ACTUAL} = \Delta C_{TREE,t} + \Delta C_{SHRUB,t} + \Delta SOC_t$ = (**8,320.6–5,994.1+6,086.6) *4.5= 37,858.9** tCO_2e

$C_{AR-CDM} = \Delta C_{ACTUAL} - \Delta C_{BSL} - LK$ = 37,858.9 - 2,116.5 - 0 = 35,742 tCO_2e

[Comparison of ERs]

The annual estimated net GHG removals are 87,308 tCO_2e as per the registered PDD. The actual operation days of the Project in the monitoring period are 1643 days. The corresponding estimate in the monitoring period are **393,005** (=87,308*1643/365) tCO_2e. The actual net GHG removals are much less than the estimated value in the monitoring period. No net GHG removals increase and it is deemed to be reasonable.

- Corresponding to the paragraph 246 of VVS version 02.0, Bureau Veritas Certification can confirm that:

- Data used for the determination of the net GHG removals are available and monitored in accordance with the monitoring plan contained in the registered PDD.
- Information and data provided in the monitoring report have been cross-checked with other sources such as plant logbooks, inventories, purchase records, laboratory analysis.
- Appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed.
- Assumptions, emission factors and default values that were applied in the calculations have been justified.

4. VERIFICATION OPINION

Bureau Veritas Certification has performed the 1st periodic verification of Reforestation on Degraded Lands in Northwest Guangxi, CDM Registration Reference Number 3561, which is located in Longlin County, Tianlin County and Lingyun County in the north-western Guangxi Zhuang Autonomouse Region, in southern China, and applying the methodology AR-ACM0001 ver. 5.2.0. The verification was performed based on the requirements set by the CDM and relevant guidance provided by CMP and the CDM Executive Board.

The verification consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of Guangxi Longlin Forestry Development Company Ltd. is responsible for the preparation of the net GHG removals data and the reported net GHG removals of the project on the basis set out within the monitoring plan contained in the registered PDD. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of net GHG removals from the project, is the responsibility of the management of the project.

Bureau Veritas Certification has verified the project Monitoring Report version 02 dated 16/10/2012 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in the validated and registered project design documents, the special change in the actual forestry situation compared to the registered PDD is identified as minor in nature according to “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents” (Version 02.0) (Annex 24, EB 66). Multiple-use forests are established on degraded lands being essential for anthropogenic GHG removals by sinks. The monitoring system is in place and the project is generating net anthropogenic GHG removals by sinks.

Bureau Veritas Certification can confirm that the GHG removals are calculated without material misstatements. Our opinion relates to the projects' actual net GHG removals by sinks and resulting net anthropogenic GHG removals by sinks reported and related to the validated and registered project baseline, monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG removals are appropriately calculated, Bureau Veritas Certification confirms the following statement:

Reporting period:	01/01/2008 to 30/06/2012	
Baseline net GHG removals by sinks:	2,116.5	t CO_2 equivalents
Actual net GHG removals by sinks:	37,858.9	t CO_2 equivalents
GHG emissions due to leakage:	0	t CO_2 equivalents
Net anthropogenic GHG removals by sinks:	35,742	t CO_2 equivalents

Mr. Peter Huang Qin
Internal Technical Reviewer
08/02/2013

Mr. Liao Ling
Team Leader
08/02/2013

5. REFERENCES

Documents reviewed:

/1/ Registered PDD version 7.0 dated 09/03/2010, UNFCCC ref no.3561

/2/ Validation Report revision 02 dated 21/01/2010

/3/ Monitoring Report version 1.0, dated 03/05/2012

/4/ Monitoring Report version 02, dated 16/10/2012

/5/ ER Calculation Spreadsheet version 02, dated 16/10/2012, with sample plots number

/6/ Supplementary calculation spreadsheet version 02, dated 16/10/2012

/7/ Validation and Verification Standard Version 03.0 dated 23/11/2012

/8/ Technical guidelines for national forest inventory. SFA 2004 No.25

/9/ Boundary comparison of the baseline scenario and project scenario

/10/ Forest Compartment Records of the Project

/11/ Inventory Report of the Project issued by the third party "Guangxi Forestry Designing Institute"

/12/ Initial yield measurement records conducted by the PP and Guangxi Forestry Designing Institute

/13/ Site visit memo of the Project conducted by Bureau Veritas Certification

/14/ Technical guidelines for forest resource planning and design. State Forestry Administration (SFA), April 2003

/15/ Technical guidelines for forest resource planning and design in Guangxi. Guangxi Forestry Department, Feb 2009

/16/ Standard Operation Procedures for 8th forest inventory in Guangxi. Guangxi Forestry Department, April 2010

/17/ CDM Monitoring & Management Manual

/18/ Internal Training Records and Qualification Certificate of Operation Staff

/19/ Email between the PP (Word Bank) and the EB for the PRC

Methodology(ies) and tools applied

Ref-1. AR-ACM0001 ver. 3.0 dated 25/03/2009 (EB46 Annex 14)

Ref-2. AR-ACM0001 ver. 5.2.0 dated 25/11/2011 (EB65 Annex 30)

Ref-3. "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents" dated 02/03/2012 (EB66 Annex 24)

Ref-4. "Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities" dated 25/11/2011 (eb65 Annex28)

Ref-5. "Calculation of the number of sample plots for measurements within A/R CDM project activities" dated 26/11/2010 (eb58 Annex15)

Ref-6. "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" dated 15/03/2011 (eb60 Annex13)

Ref-7. "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" dated 15/03/2011 (eb60 Annex12)

Ref-8. "Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities" dated 29/09/2011 (eb63 Annex26)

Ref-9. "Estimation of non-CO_2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" dated 25/11/2011 (eb65 Annex31)

Ref-10. "Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks" dated 16/10/2009 (eb50 Annex 23)

Ref-11. "Estimation of the increase GHG emissions attributable to displacement of pre-project agricultural activities" (eb51 Annex15)

Ref-12. "Guidelines on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant " (EB51 Annex13)

Technical and regulatory standards applied

S-01. Artificial Afforestation Technical Regulation: GB/T 15776-2006

S-02. Non-commercial Forest Construction: GB/T 18337.1-2001, GB/T 18337.2-2001, GB/T 18337.3-2001

S-03. Non-commercial forest construction-verification regulation: GB/T 18337.4-2008

S-04. Design Code for Afforestation Operation: LY/T 1607-2003

S-05. Regulations for Tending of Forest: GB/T 15781-1995

S-06. Tree Seedling Quality Grading of Major Species for Afforestation: GB 6000－1999

S-07. Technical Regulations for Cultivation of Tree Seedlings: GB/T 6001-1985

S-08. Technical Standard for Cultivation of Container Seedlings: LY1000-1991

S-09. Seed Certification Regulations (GB2772-1999)

S-10. Technical regulations for forest harvest and regeneration

S-11. Technical Regulations for Chinese fir plantation in Guangxi

S-12. Technical Regulations for masson pine plantation in Guangxi

S-13. Technical Regulations for birch plantation in Guangxi

Persons interviewed:

	Guangxi Longlin Forestry Development Company Ltd.	
/1/	Mr. Huang Kaiyong	CDM Engineer of the PO
	Institute of Forest Ecology and Environment, the Chinese Academy of Forestry	
/2/	Mr. Zhang Xiaoquan	CDM expert of the consultant
	Local forestry government of Guangxi	
/3/	Mr. Li Guiyu	Chair of the Project Office of Guangxi Forestry Apartment
/4/	Mr. Huang Guihua	Chairman of the Project Office of Longlin Forestry Apartment
/5/	Mr. Huang Jianji	Vice Chairman of the Project Office of Guangxi Forestry Apartment
	Guangxi Forestry Apartment	
/6/	Mr. He Sanzhong	Chief of the Guangxi Forestry Inventory and Design Institute
/7/	Ms. Mo Zhuping	Operator of the Guangxi Forestry Inventory and Design Institute
	World Bank	
/8/	Ms. Liu Jin	CDM PM of the buyer

6. CURRICULA VITAE OF THE DOE'S VERIFICATION TEAM MEMBERS

Mr. Liao Ling	Bureau Veritas Certification, China	Team Leader, Climate Change Lead Verifier, He holds a Bachelor Degree in Atmosphere Science. Before joining BV in 2008, he gained 4 years experience of environmental assessment and 2 years of technical experience of CDM in P.R China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for EMS ISO 14001 and 14064:2006.

Ms. Coco Geng Yan	Bureau Veritas Certification, China	Team Member, Climate Change Lead Verifier. She holds a Master Degree in Ecology and a bachelor degree in Forestry. She has 2 years of experience in CDM in P.R China. She obtained the certificate of CDM Verifier in 2010, Lead Auditor for ISO 14001 and has successfully completed the course assessment for ISO 14064.

Mr. Peter Huang Qin	Bureau Veritas Certification, China	Technical Reviewer, Climate Change Lead Verifier. He holds a Master Degree in Industrial Ecology. Before joining BV in Jan 2010, he gained almost two years of CDM audit experience and two years of technical experience in power industry. He obtained the certificate of GHG Auditor, Lead Auditor for EMS ISO 14001 and has successfully completed the course assessment for ISO 14064:2006.

Mr. Yang Jiaming	Bureau Veritas Certification, China	Specialist supporting ITR, Climate Change Lead Verifier. He holds a Master and Engineer Degree in Wood Science and Technology. Before joining BV in Mar 2011, he gained almost two years of audit experience Wood Trading industry. He obtained the certificate of Lead Auditor for ISO9001 and has successfully completed the works related of FSC, PEFC and national forestry programs.

APPENDIX A: CDM PROJECT VERIFICATION PROTOCOL

Table 1 Verification requirements based on VVS version 03.0 (EB 70 Annex 3), PS version 02.1 (EB 70 Annex 2), PCP version 03.1 (EB 70 Annex 4), and Guidelines for completing the Monitoring Report Form version 03.1 (EB 70 Annex 11)

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
Part I Cover Page					
(a) Is the title of the project activity provided?	MR		Yes. The title of the project is provided as: Reforestation on Degraded Lands in Northwest Guangxi.	OK	OK
(b) Is the reference number of the project activity provided?	MR		Yes. The reference number of the project activity is Ref. 3561.	OK	OK
(c) Is the version number of the monitoring report indicated?	MR		Yes. The version number of the monitoring report is 02.	OK	OK
(d) Is the completion date of the monitoring report provided in DD/MM/YYYY format?	MR		Yes. The completion date of the monitoring report is 16/10/2012.	OK	OK
(e) Is the registration date of the project activity provided in DD/MM/YYYY format?	MR		Yes. The registration date of the project is 15/09/2010.	OK	OK
(f) Are the monitoring period number and duration of this monitoring period (first and last days included in DD/MM/YYYY format) provided?	MR		Yes. The monitoring period number is 1st and duration of this monitoring period is from 01/01/2008 to 30/06/2012.	OK	OK
(g) Are project participants indicated?	MR		Yes.	OK	OK
(h) Is the host party(ies) indicated?	MR		Yes. The host party is Guangxi Longlin Forestry Development Company Ltd.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
(i) Are the sectoral scope(s) and applied methodology(ies) indicated?	MR		Yes. The sectoral scope is 14: Afforestation and reforestation. The applied methodology in registered PDD is AR-ACM0001 ver. 3- Afforestation and reforestation of degraded land and the applied methodology was updated according to the "Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities".	OK	OK
(j) Is the estimated amount of GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD indicated?	MR		Yes. The estimated amount of net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD indicated as 393,005 tCO_2 equivalent.	OK	OK
(k) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period indicated?	MR		Yes. The actual net anthropogenic GHG removals by sinks achieved in this monitoring period indicated as 35,742 tCO_2 equivalent.	OK	OK
(l) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period up to 31 December 2012 indicated (if applicable)?	MR		N/A	OK	OK
(m) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period from 1 January 2013 onwards indicated (if applicable)?	MR		N/A	OK	OK
Part II Monitoring Report					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
A. Description of project activity					
A.1 Purpose and general description of project activity					
A.1.1 Is the description of the project activity to be presented in this section a brief summary of the detailed description given in the section B.1 Implementation status of the project activity?	MR		Yes.	OK	OK
A.1.2 Does this description include:					
A.1.2.1 Purpose of the project activity and the measures taken for GHG emission reductions or net anthropogenic GHG removals by sinks?	MR		Yes. The project has been implemented afforestation and reforestation (A/R) activities to achieve multiple objectives of restoring the degraded areas, including soil, water and biodiversity conservation and poverty alleviation.	OK	OK
A.1.2.2 Brief description of the installed technology and equipments?	MR		Yes. The project implemented reforestation through direct planting of tree species to restore the degraded lands using environmental-friendly techniques. Good practice guidance of reforestation and experience gained from the World Bank financed forestry projects were adopted in the project.	OK	OK
A.1.2.3 Relevant dates for the project activity (e.g. construction, commissioning,	MR		Yes. The Project has been under implementation since	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
continued operation periods, etc.)?			2008.		
A.1.2.4 Total GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period?	MR		Yes. The anthropogenic GHG net removals by sinks from the first monitoring period of the project are 35,742 tCO2 e.	OK	OK
A.2 Location of project activity					
A.2.1 Is the information on the location of the project activity provided, including Host Party(ies), Region/State/Province, City/Town/Community, Physical/ Geographical location etc.?	MR		Yes. The Project is located in Longlin County, Tianlin County and Lingyun County in the north-western Guangxi Zhuang Autonomous Region, in southern China.	OK	OK
A.3 Parties and project participant(s)					
A.3.1 Is the Party(ies) and project participant(s) involved in the project activity listed in the provided table?	MR		Yes.	OK	OK
A.4 Reference of applied methodology					
A.4.1 Is the exact reference (number, title, version) of the methodology(ies) indicated?	MR		Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
A.4.2 Is the exact reference (number, title, version) of any tools and other methodologies to which the applied methodology(ies) refers indicated?	MR		~~CAR-1. Please state the applied methodology and tools in A.4 of the MR~~. Bureau Veritas Certification checked the updated MR and confirmed the reference of applied methodology are complete and correct, thus the CAR-1 is closed.	~~CAR-1~~	OK
A.5 Crediting period of project activity					
A.5.1 Are the type, start date and length of the crediting period corresponding to this monitoring period provided?	MR		Yes. The type, start date and length of the crediting period corresponding to this monitoring period provided as: start date is 01/01/2008, and the crediting period is 20 years, renewable (01/01/2008 to 31/12/2027)	OK	OK
B. Implementation of project activity					
B.1 Description of implemented registered project activity					
B.1.1 Is the description of the installed technology, technical processes and equipments provided, include diagrams where appropriate?	MR PS	191(a)	Yes.	OK	OK
B.1.2 Is the information on the implementation and actual operation of the project activity, including relevant dates (e.g. construction, commissioning, continued operation periods, etc.) provided?	PS	191(b)	Yes. The project started on August 1st 2008. As outlined in the PDD, 8,671.3 ha was proposed to be planted from 2008 to 2010. However, the actual planted area in the project by the first monitoring period is 4,670.8ha, and	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			2178.3 ha is expected to be planted during the second monitoring period.		
B.1.3 Is the description of: (i) the events or situations that occurred during the monitoring period that may impact the applicability of the methodology (ii) how the issues resulting from these events or situations have been addressed provided?	PS	191(c)	Yes. The changes will be discussed in the B.2.6 below.	OK	OK
B.1.4 Have the project participants addressed the FARs identified during validation or previous verification(s)?	VVS	213	No.	OK	OK
B.1.5 Have the implementation and operation of the project activity been conducted in accordance with the description contained in the registered PDD?	VVS	226	Yes. The changes will be discussed in the B.2.6 below.	OK	OK
B.1.6 Are all physical features of the project activity in the registered PDD in place?	VVS	227	Yes. The changes will be discussed in the B.2.6 below.	OK	OK
B.1.7 Have the project participants operated the project activity as per the registered PDD or any approved revised PDD?	VVS	227	Yes. The changes will be discussed in the B.2.6 below.	OK	OK
B.1.8 Was an on-site visit conducted?	VVS	227	Yes. The on-site visit of the periodic verification has been conducted during 23/07/2012 to 31/07/2012. Mr. LIAO Ling	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Climate Change Lead Verifier of Bureau Veritas Certification China. Ms. Coco GENG Yan, Climate Change Lead Verifier of Bureau Veritas Certification China. The audit purpose and method were briefly introduced in the opening meeting participated by the following persons.		

Ms. Liu Jin	CDM PM of the buyer
Mr. Zhang Xiaoquan	CDM PM of the consultant
Mr. He Sanzhong	Chief of the Guangxi Forestry Inventory and Design Institute
Ms. Mo Zhuping	Operator of the Guangxi Forestry Inventory and Design Institute
Mr. Li Guiyu	Chair of the Project Office of Guangxi Forestry Apartment
Mr. Huang Guihua	Chairman of the Project Office of Longlin Forestry Apartment
Mr. Huang Jianji	Vice Chairman of the Project Office of Guangxi Forestry

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<table><tr><td></td><td>Apartment</td></tr><tr><td>Mr. Yuan Sheng</td><td>Engineer of the Guangxi Forestry Inventory and Design Institute</td></tr><tr><td>Mr. Ye Chunsheng</td><td>Senior Engineer of Project Office of Guangxi Forestry Apartment</td></tr></table> All the other people participant the meeting and the interview during site visit pls. refer to the Section 5 REFERENCES in this report.		
B.1.9 If an on-site visit is not conducted, is the rationale of the decision justified?	VVS	227	N/A	OK	OK
B.2 Post registration changes					
B.2.1 Temporary deviations from registered monitoring plan or applied methodology					
B.2.1.1 Is it indicated whether any temporary deviations have been applied during this monitoring period?	MR		N/A	OK	OK
B.2.1.2 Is a description of the deviation(s) in accordance with applicable provisions in the Project standard provided?	MR		N/A	OK	OK
B.2.1.3 Are the reasons for the deviation(s), how it deviates from the monitoring plan	MR		N/A	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach included in the description?					
B.2.1.4 For deviation(s) that require prior approval by the Board, are the date of approval and reference number included in the description?	MR		N/A	OK	OK
B.2.2 Corrections					
B.2.2.1 Is it indicated whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report?	MR		N/A	OK	OK
B.2.2.2 In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and the completion date of the revised PDD provided?	MR		N/A	OK	OK
B.2.3 Permanent changes from registered monitoring plan or applied methodology					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
B.2.3.1 Is it indicated whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report?	MR		N/A	OK	OK
B.2.3.2 In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and the completion date of the revised PDD provided?	MR		N/A	OK	OK
B.2.4 Changes to project design of registered project activity					
B.2.4.1 Is it indicated whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report?	MR		N/A	OK	OK
B.2.4.2 In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and	MR		N/A	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the completion date of the revised PDD provided?					
B.2.5 Changes to start date of crediting period					
B.2.5.1 Is it indicated whether any changes to the start date of the crediting period have been approved during this monitoring period?	MR		N/A	OK	OK
B.2.5.2 In cases where the changes and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided?	MR		N/A	OK	OK
B.2.6 Types of changes specific to afforestation or reforestation project activity					
B.2.6.1 Is it indicated whether any changes specific to afforestation or reforestation project activities have been applied during this monitoring period based on applicable provisions in the Project standard that do not require prior approval by the Board?	MR		Yes. From the email between PP (Word Bank) and EB (/19/), the changes follow the "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents" dated 02/03/2012 (EB66 Annex 24) are not required for prior approval by the Board.	OK	OK
B.2.6.1.1 Changes in year-wise areas planted, possibly resulting in a part of the project area not being planted.	EB 66	Annex 24	Yes. 4,670.8 ha out of 8,671.3 ha was planted, and 2,178.3	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			ha will continue to be planted in the second monitoring period as the land use contract were signed and over the control of the Project. Therefore, 1,822.2 ha of the project area was not planted or will not be planted because of the abrupt adverse climate events (snow/ice storms and droughts drought) and poor site condition.		
B.2.6.1.2 Changes in species composition, if the changes are demonstrated at verification to be consistent with the baseline identification and additionality demonstration made at the validation stage.	EB 66	Annex 24	The registered PDD planned 8 species planting for the Project, but because of the poor site conditions and location specific factors, survival and growth rates of two species were not planted. ~~CL-1 Please clarify whether the change impacts the additionality of the Project.~~ Bureau Veritas Certification checked the planted species and areas of the Project, found the abrupt adverse climate events (snow/ice storms and droughts drought) in 2008 - 2010 affected the growth of the Project adversely, combined with the poor site condition of the project and increasing cost for labours and seedlings, which leads the cash inflow of the Project is less and slow than the estimation in registered PDD while the planted cost is higher than estimation, thus additionality of the Project is not effected as the planted species change and the CL-1 is closed ~~CL-2 Please specify the changed species~~	~~CL-1~~ ~~CL-2~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			~~clearly in Table B.2 in MR~~. As the baseline net removals is considered the same as the registered PDD, therefore it is conservative for the calculation of net anthropogenic GHG removals by sinks; As the change of the species planted results the less cash inflow and more planted cash cost, which doesn't affect the additionality of the Project, thus the CL-2 is closed.		
B.2.6.1.3 Changes in stocking density, if the changes are demonstrated at verification to be consistent with the baseline identification and additionality demonstration made at the validation stage;	EB 66	Annex 24	No changes in stocking density.	OK	OK
B.2.6.1.4 Changes in timing and choice of silvicultural operations;	EB 66	Annex 24	Yes, changes in species composition and stand models resulted in the changes to timing and choice of silvicultural operation.	OK	OK
B.2.6.1.5 Changes in timing of harvest occurring before the third verification;	EB 66	Annex 24	Yes, changes in species composition and stand models resulted in changes to potential timing of harvest before the third verification (harvesting of eucalyptus and thinning for other species).	OK	OK
B.2.6.1.6 Changes related to collection of non-timber forest products;	EB 66	Annex 24	Yes, changes in species composition and stand models resulted in the changes to the collection of non-timber forest products.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
B.2.6.1.7 Changes in tree/shrubs propagation method;	EB 66	Annex 24	No.	OK	OK
B.2.6.1.8 Changes in post-harvest re-planting/regeneration methods;	EB 66	Annex 24	N/A. The planted areas are not harvested.	OK	OK
B.2.6.1.9 Changes in technology employed;	EB 66	Annex 24	Changes in technology employed;	OK	OK
B.2.6.1.10 Changes in inputs (e.g. fertilizers, certified seeds, watering);	EB 66	Annex 24	No.	OK	OK
B.2.6.1.11 Changes in stratification for sampling;	EB 66	Annex 24	Yes. There are 18 strata in *ex post* stratification VS 6 *ex ante* strata due to factors related to changes in planting time, growth rates of species, impacts of site conditions, and other location specific factors. Additionality is not affected in an adverse manner by re-stratification of the area as it has no monetary value influencing.	OK	OK
B.2.6.1.12 Changes in type of sample plots (e.g. temporary, permanent, point-sampling);	EB 66	Annex 24	No. Permanent sample plots are employed.	OK	OK
B.2.6.1.13 Changes in type of sample plots (e.g. temporary, permanent, point-	EB	Annex	~~CL-3 The detailed sample and allocation~~	~~CL-3~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
sampling);	66	24	~~process for the sample plots is required~~. Bureau Veritas Certification checked the description in the updated MR and the evidences provided about the detailed sample and allocation process, confirmed the sample and allocation process for the sample plot is reasonable and can be re-produced, thus the CL-3 is closed. Yes. The type of sample plots keeps the same with the baseline scenario as permanent, additionality is not affected in an adverse manner by re-stratification and change of number and allocation of sample plots of the area as it has no monetary value influencing the financial analysis.		
B.2.6.1.14 Changes in the project boundary (limited to reduction in project area), if the changes are demonstrated at verification to be consistent with the baseline identification and additionality demonstration made at the validation stage.	EB 66	Annex 24	~~CL-4 The comparison of the boundary for the baseline scenario and the Project scenario is required.~~ Bureau Veritas Certification checked the difference between the baseline scenario and the Project scenario in the GIS combined with the site visit verification and found the boundary of the Project scenario is within the baseline scenario, thus the CL-4 is closed.	~~CL-4~~	OK
B.2.6.1.15 Changes in quality assurance/quality control (QA/QC) procedures, where it can be demonstrated that the	EB	Annex	~~CL-5 Please state the actual QA/QC procedure and the A/R CDM UNFCCC No. in~~	~~CL-5~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
changed QA/QC procedures are used by the National Forest Inventory or were applied in another registered A/R CDM project activity.	66	24	~~Table B.2 of MR~~ Bureau Veritas Certification checked the actual implemented QA/QC procedures for the Project against the evidences proved (such as the site-visit memo and the data measurements record and so on), and confirmed the description is consistent with the actual implemented QA/QC procedures, thus the CL-5 is closed.		
B.2.6.1.16 Changes in parameters, equations, or methods used in tree biomass estimation, if the applicability of the changed parameters, equations, or methods is demonstrated at verification using the "Tool for demonstration of applicability of allometric equations and volume equations in A/R CDM project activitiesî when available, or if the changed parameters, equations, or methods do not result in a decrease in precision of the estimate of tree biomass	EB 66	Annex 24	No changes in the parameters. The equations used in tree biomass estimation are consistent with the A/R Methodological Tool - "*Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities" (Annex 29, EB 65)*	OK	OK
B.2.6.1.17 Changes from provisions regarding shifting of pre-project activities, if the related emissions are estimated at verification using the tool "Estimation of the increase in greenhouse gas (GHG) emissions attributable to	EB 66	Annex 24	N/A.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
displacement of pre-project agricultural activities in A/R CDM project activity" and are accounted for as leakage.					
B.2.6.1.18 Changes in use of fire in site preparation, if the related emissions are estimated at verification using the tool "Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" and are accounted for as project emissions.	EB 66	Annex 24	N/A.	OK	OK
B.2.6.1.19 Changes in extent of soil disturbance in site preparation, if the related emissions are estimated at verification using Equation (2) of the "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" and are accounted for as project emissions.	EB 66	Annex 24	N/A.	OK	OK
B.2.6.1.20 Changes in methods of estimation of changes in any carbon pool, if the method applied at verification uses the latest version of the relevant approved tool and the applicability conditions of the methodology applied are consistent with the applicability	EB 66	Annex 24	Yes. Yes. The projects adopts the latest versions of A/R methodological tool(s) and the applicability conditions of the methodology are consistent with the applicability conditions of the tool(s). The changes of the latest version of methodology (AR-ACM0001	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
conditions of the tool.			ver.05.2.0), compared to AR-ACM0001 ver.03 used in PDD, are: • The amendment provides an option to account for carbon stock in shrub biomass; • The editorial revision was done to reflect the renaming of the tool "Estimation of GHG emissions due to clearing, burning and decay of existing vegetation attributable to a CDM A/R project activity" as "Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" following the request of the Board (EB 60, para 61). • Applicability conditions of the methodology have been re-written: Broadens the applicability of the methodology by allowing more than 10% of project area to be ploughed in the project scenario, and the restriction on ploughing of land applies only if the project participants wish to opt for credits from carbon stock changes in the SOC pool; • The methodology now uses the tools "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" and "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities", so that the corresponding text		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			dealing with estimation of changes in these pools has been deleted; • Emission of nitrous oxide is accounted for when biomass is burnt. • Allows use of the Tool for estimation of change in soil organic carbon stocks due to the implementation of CDM A/R project activities; • Streamlines the general presentation of the methodology with the recently approved methodologies Additionality is not affected and the ER calculation of the Project is estimated conservatively according to latest methodology and tools.		
B.2.6.2 If changes were applied, are the version number and the completion date of the revised PDD provided?	MR		No. According to a feedback to PP from EB (/19/), the PDD of this project is not required to be revised, CME shall only describe the changes in the MR and DOE shall assess and report the changes within the verification report combined with the request for issuance.	OK	OK
C. Description of monitoring system					
C.1 General requirements					
C.1.1 Have project participants described the	MR		Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
monitoring system and provided line diagrams (graphical schemes) showing all relevant monitoring points?	PS	193			
C.1.2 Does this description where appropriate include data collection procedures (information flow including data generation, aggregation, recording, calculations and reporting), organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system?	MR PS	193	Yes. The description include data collection procedures (information flow including data generation, aggregation, recording, calculations and reporting), organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system. The provincial and county Project Management Offices (PMOs) that have been established under the umbrella of the Guangxi Integrated Forestry Development and Conservation Project (GIFDCP) is responsible for coordinating the project participants and providing technical services The monitoring organization has been set up and in functions. All monitoring staffs have been trained and the training records have been provided and verified satisfactorily. The monitoring procedures are in place and function. All parameters indicated in the MP have been measured and recorded in the respective documents. The QA/QC procedures are in place and function.	OK	OK
C.1.3 Is the monitoring plan of the project activity in accordance with the applied methodology	VVS	229	Yes. The registered monitoring plan (MP) in accordance	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
including applicable tool(s)?			with the methodology AR-ACM0001 ver. 3.0 has been applied by the CDM project activity. And the MR adopts the latest version of AR-ACM0001 ver. 5.2.0 according to the "Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities" (Version 01.0).		
C.1.4 For monitoring aspects that are not specified in the methodology, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency), are there any issues which may enhance the level of accuracy and completeness of the monitoring plan and should bring to the attention of the Board?	VVS	231	N/A	OK	OK
C.1.5 Has the monitoring plan been properly implemented and followed by the project participants?	VVS	234(a)	Yes.	OK	OK
C.1.6 Have all parameters stated in the monitoring plan and relevant Board decisions been monitored and updated as applicable, including:	VVS	234(b)		-	-

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
C.1.6.1 Project emission parameters?	VVS	234(b)	Yes. As per methodology AR-ACM0001 ver. 5.2.0, the project emissions are zero as there has been no biomass burning during site preparation and no forest fire during the verification period. ~~CL-6 Please present the calculation process of the $C_{TREE,t1}$ as there is no related information in PDD and MR~~. Bureau Veritas Certification checked the specification of the calculation process of the parameter against the detailed calculation process based on registered PDD and confirmed the CL-6 is closed. ~~CAR-2. There is an error in the actual net GHG removals by sinks for the calculation of $B_{TREE,i,t}$ in s-11, please correct it.~~ The mistake was corrected, and the net anthropogenic GHG removals by sinks decreases to 35,742 tCO_2e accordingly. Bureau Veritas Certification checked the ER sheet and confirmed the CAR-2 is closed.	~~CL-6~~ ~~CAR-2~~	OK
C.1.6.2 Baseline emission parameters?	VVS	234(b)	~~Pending on CAR-2~~ Yes.	~~Pending~~	OK
C.1.6.3 Leakage parameters?	VVS	234(b)	~~CL-7 The EB51 Annex15 should be~~	~~CL-7~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			~~considered in the leakage calculation~~. Bureau Veritas Certification checked the record of the pre-project livestock in the registered PDD and found that all the pre-project livestock were displaced to existing grassland leakage monitoring record for lands with pre-project grazing and confirm the leakage of this monitoring period is zero according to the EB51 Annex15, thus the CL-7 is closed.		
C.1.6.4 Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan?	VVS	234(b)	Yes. For the purpose of the monitoring, standard operating procedures have been developed and followed: 1. The PP has the responsibility of overall management of the Project, which includes Provincial Project Management Office (PPMO), County Project Management Office (CPMOs), Experts Group and Monitoring Group. Detailed responsibility was allocated for manage and monitoring the Project implementation, and field measurement of sampling plots and data entry/analysis. 2. Quality assurance and quality control (QA/QC) procedures are implemented to ensure the net anthropogenic GHG removals by sinks are measured and monitored precisely, credibly, and transparently, which includes the a) Quality checks on field measurements, b) Quality checks of field data collected, c) Quality checks of data entry and analysis	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			and Data maintenance and archival. The responsibilities and the procedures included in the standard operating procedures (SOP) have been verified.		
D. Data and parameters					
D.1 Data and parameters fixed ex ante or at renewal of crediting period					
D.1.1 For "Purpose of data", is one of the following options chose: (a) Calculation of baseline emissions or baseline net GHG removals by sinks; (b) Calculation of project emissions or actual net GHG removals by sinks; (c) Calculation of leakage?	MR		Yes.	OK	OK
D.1.2 For "Value(s) applied", if applicable, is one table used to report multiple values referring to the same data and parameter? If necessary, are reference(s) to electronic spreadsheets used?	MR		~~CL-8 Clarification for the inconsistency of the value for the $V_{tree,j,p,i,t}$ equitation between the PDD and the MR shall be provided.~~ Bureau Veritas Certification checked the parameter $V_{TREE,j,p,i,t}$ against the parameter $V_{l,j,i,sp,t} = f(DBH, H)$ in registered PDD and the net GHG removal calculation, and confirm the two parameter are the same one. The typo for the eucalyptus volume equation in registered PDD can proved by the yield table and volume equation contained in the national forest inventory manual	~~CL-8~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			suitable for eucalyptus in Guangxi, CL-7-2 for Guangxi province, thus the CL-8 is closed.		
D.1.3 Is the source of data provide and/or identified?	PS	195(d)	Yes.	OK	OK
D.1.4 Is information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of GHG emission reductions or net GHG removals provided?	PS	195(g)	Yes.	OK	OK
D.2 Data and parameters monitored					
D.2.1 For "Purpose of data", is one of the following options chose: (a) Calculation of baseline emissions or baseline net GHG removals by sinks; (b) Calculation of project emissions or actual net GHG removals by sinks; (c) Calculation of leakage?	MR		Yes.	OK	OK
D.2.2 For "Value(s) of monitored parameter", if applicable, is one table used to report multiple values referring to the same data and parameter? If necessary, are reference(s) to electronic spreadsheets used?	MR		Yes.	OK	OK
D.2.3 Are the values of the monitored parameter for the purpose of calculating GHG emission reductions or net GHG removals provided? Where data are measured	PS	195(a)	~~CAR-3. The parameters listed in the MR should be consistent with the monitoring plan of registered PDD.~~	~~CAR-3~~	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
continuously, are they presented using an appropriate time interval? For default values (such as an IPCC value), where it is ex post confirmed, is the most recent value applied?			Bureau Veritas Certification checked the listed monitoring parameters in D.2 and the parameters not to be monitored but included in the monitoring plan of registered PDD according to the updated applied methodology and the tools for the Project, confirm the parameters contained in updated MR can reflect the project monitoring completely, thus the CAR-3 is closed.		
D.2.4 Is the equipment used to monitor each parameter described, including details on accuracy class, and calibration information (frequency, date of calibration and validity), if applicable as per monitoring plan?	PS	195(b)	Yes.	OK	OK
D.2.5 Is the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan, the applied methodology, the Board guidance, local/national standards, or as per the manufacturer's specification?	VVS	234(c)	Yes.	OK	OK
D.2.6 Is the calibration of those measuring equipments that have an impact on the claimed emission reductions conducted by the project participants at a frequency specified in the applied monitoring methodology and/or the monitoring plan?	VVS	237	Yes,	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
D.2.7 If, during verification of a certain monitoring period, the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), is the following conservative approach adopted in the calculation of emission reductions:	VVS	238			
D.2.7.1 Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error?	VVS	238(a)	N/A	OK	OK
D.2.7.2 Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment?	VVS	238(b)	N/A	OK	OK
D.2.8 Has the error has been applied:	VVS	239	-	-	-
D.2.8.1 In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed emission reductions?	VVS	239(a)	N/A	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
D.2.8.2 For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.	VVS	239(b)	N/A	OK	OK
D.2.9 In cases where the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification, prior to finalizing verification, were the project participants requested to conduct the required calibration have the project participants calculated the emission reductions conservatively using the approach mentioned in item “D.2.7” above?	VVS	240	N/A	OK	OK
D.2.10 In cases where it is not possible for the project participants to conduct the calibration at a frequency specified by either the applied methodology, guidance provided by the Board, and/or the registered monitoring plan due to reasons beyond the control of PPs, are the requirements for post registration changes, in section 9.5 of the VVS, followed?	VVS	241	N/A	OK	OK
D.2.11 In cases where neither the monitoring methodology nor the monitoring plan specify any requirements for calibration frequency for measuring equipments, are the equipments calibrated either in	VVS	242	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
accordance with the specifications of the local/national standards, or as per the manufacturer's specification? If neither local/national standards nor the manufacturer's specification are available, were international standards used?					
D.2.12 Is it described how the parameters are measured/calculated and the measurement and recording frequency?	PS	195(c)	Yes.	OK	OK
D.2.13 Are monitoring results consistently recorded as per approved frequency?	VVS	234(d)	Yes.	OK	OK
D.2.14 Is the source of data (e.g. logbooks, daily records, surveys, etc.) provide and/or identified?	PS	195(d)	Yes. The initial yield measurement records were provided for onsite verification to DOE.	OK	OK
D.2.15 Where relevant is the calculation method of the parameter provided?	PS	195(e)	Yes.	OK	OK
D.2.16 Are the QA/QC procedures applied described (if applicable per monitoring plan)?	PS	195(f)	Yes. The QA/QC procedures have been documented in the SOP and applied in accordance with the registered PDD.	OK	OK
D.2.17 Have quality assurance and quality control procedures been applied in accordance with the monitoring plan or the revised monitoring plan?	VVS	234(e)	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
D.2.18 Is information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of GHG emission reductions or net GHG removals provided?	PS	195(g)	Yes.	OK	OK
D.3 Implementation of sampling plan					
D.3.1 Is a description provided on how project participants implemented the sampling efforts and surveys for those data and parameters according to the sampling plan, Include:	MR				
D.3.1.1 Description of implemented sampling design?	MR		Yes.	OK	OK
D.3.1.2 Collected data (electronic spreadsheets may be attached and referenced)?	MR		Yes. The detailed data of each sample plot are provided in the ER calculation sheet.	OK	OK
D.3.1.3 Analysis of the collected data?	MR		Yes. Please refer to the ER calculation sheet for details.	OK	OK
D.3.1.4 Demonstration on whether the required confidence/precision has been met?	MR		Yes. Detailed calculation for the confidence/precision of the Project are listed in the ER calculation sheet.	OK	OK
E. Calculation of emission reductions or GHG					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
removals by sinks					
E.1 Calculation of baseline emissions or baseline net GHG removals by sinks					
E.1.1 Are the sample calculations for all formulae used and calculation of baseline emissions or baseline net GHG removals by sinks provided, applying actual values?	MR PS	197(a)	Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.1.2 Are the electronic spreadsheets to present full calculations in the monitoring report attached?	MR		Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.2 Calculation of project emissions or actual net GHG removals by sinks					
E.2.1 Are the sample calculations for all formulae used and calculation of project emissions or actual net GHG removals by sinks provided, applying actual values?	MR PS	197(b)	Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.2.2 Are the electronic spreadsheets to present full calculations in the monitoring report attached?	MR		Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.3 Calculation of leakage					
E.3.1 Are the sample calculations for all formulae used and calculation of leakage provided, applying actual values?	MR PS	197(c)	Yes. Please refer to the ER calculation sheet for details.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
E.3.2 Are the electronic spreadsheets to present full calculations in the monitoring report attached?	MR		Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.4 Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks					
E.4.1 Are the results of above sections summarized and GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period presented, using the provided table?	MR PS	197(d)	Yes Please refer to the ER calculation sheet for details..	OK	OK
E.4.2 Is a complete set of data for the specified monitoring period is available?	VVS	245(a)	Yes. Please refer to the ER calculation sheet for details.	OK	OK
E.4.3 Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?	VVS	245(b)	The information provided in the monitoring report has been found consistent with the national standard and IPCC default value. Bureau Veritas Certification conduct the re-measurement of the key parameters used for biomass and net GHG removals by sinks calculation and found the measurement is correct, transparent and credible, thus the measured data by PP is used conservatively.	OK	OK
E.4.4 Have calculations of baseline emissions, and project activity emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods	VVS	245(c)	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
described in the monitoring plan and the applied methodology document?					
E.4.5 Have any assumptions used in emission calculations been justified?	VVS	245(d)	Yes. For the sample plot number identification, following assumptions are adopted: 1) Approximate value of the area of each stratum within the project boundary is known; 2) Approximate value of the variance of biomass stocks in each stratum is known from a preliminary sample, existing data related to the project area, or existing data related to a similar area; 3) The project area is stratified into one or more strata. For the estimation of carbon stocks and change in carbon stocks of trees and shrubs, following assumptions are adopted: 1) Linearity of biomass growth for trees and shrubs; 2) Appropriateness of root-shoot ratios. And more assumptions used in the ERs calculation of the Project, pls. refer to tools applied (Ref-3 to Ref.11).	OK	OK
E.4.6 Have appropriate emission factors, IPCC default values and other reference values been correctly applied?	VVS	245(e)	Yes.	OK	OK

CHECKLIST QUESTION		Ref.	§	COMMENTS	Draft Concl	Final Concl
E.5	**Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD**					
E.5.1	Is a comparison of actual GHG emission reductions or net anthropogenic GHG removal of the project activity achieved during this monitoring period with the estimates in the registered PDD provided?	MR PS	198	Yes.	OK	OK
E.6	**Remarks on difference from estimated value in registered PDD**					
E.6.1	For any registered CDM project activity, except A/R project activities, have project participants explained the cause of any increase in the actual GHG emission reductions achieved during the current monitoring period (e.g. higher water availability, higher plant load factor, etc.), including all information (i.e. data and/or parameters) that is different from that stated in the registered PDD?	MR PS	199	N/A	OK	OK
E.7	**Actual emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards**					
E.7.1	If the monitoring period starts before 31 December 2012 and ends anytime	MR		N/A	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
thereafter, are actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved for the following two periods provided respectively? (a) Up to 31 December 2012 (1st commitment period); (b) From 1 January 2013 onwards.					
E.7.2 Is it ensured that the achieved GHG emission reductions or net anthropogenic GHG removals by sinks are calculated proportionally for each period? In cases where annual caps were applied in the calculations, is it ensured that the annual caps are pro-rated to each period?	MR		N/A	OK	OK

Table 2 Resolution of Corrective Action /Clarification / Forward Action Requests

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
CAR-1 Please state the applied methodology and tools in A.4 of the MR.	A.4.s	The applied methodology and tools are updated in A.4 with one guidelines and one methodological tool added.	Bureau Veritas Certification checked the updated MR and confirmed the reference of applied methodology are complete and correct, thus the CAR is closed.
CAR-2 There is an error in the actual net GHG removals by sinks for the calculation of $B_{TREE,i,t}$ in s-11, please correct it.	C.1.6.1	The mistake was corrected accordingly and the net anthropogenic GHG removals by sinks decreases to 35,742 tCO_2e.	The mistake was corrected, and the net anthropogenic GHG removals by sinks decreases to 35,742 tCO_2e accordingly. Bureau Veritas Certification checked the ER sheet and confirmed the CAR is closed.
CAR-3 The parameters listed in the MR should be consistent with the monitoring plan of registered PDD.	D.2.3	a) The data and parameters listed under PDD section E.1.1. Monitoring of forest establishment and management are not listed in D.2 as they are recorded in sub-compartment monitoring card (Annex II). b) Some data and parameters to be monitored/collected as listed under PDD section E.4.1. are not listed here as they are not obtained from field measurement or appear as intermediate values in calculation steps. Instead they are listed in Annex IV attached in MR.	Bureau Veritas Certification checked the listed monitoring parameters in D.2 and the parameters not to be monitored but included in the monitoring plan of registered PDD according to the updated applied methodology and the tools for the Project, confirm the parameters contained in updated MR can reflect the project monitoring completely, thus the CAR is

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
		c) Following the "Guidelines on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant" (version 01), the leakage from the displacement of the pre-project grazing is assessed insignificant and not monitored based on information contained in PDD section D-2. Therefore, data and parameters listed in PDD section E.5.1 are not listed in D.2 of MR.	closed.
CL-1 Please clarify whether the change impacts the additionality of the Project.	B.2.6.1.2	- In the project design the revenue from the project activity was expected from the short rotation eucalyptus (6 years). The actual area of eucalyptus actually planted or to be planted is 5.2% of total area planted, compared to 16.2% designed in PDD. The revenue will reduce relative to PDD; - Due to inflation, the cost for labours and seedlings in China has been increasing year by year, while the unit costs in PDD were based on 2007 price level. The actual cost is much higher than those used in PDD; - The adverse climate events such as snow/ice storms and droughts damaged	Bureau Veritas Certification checked the planted species and areas of the Project, found the abrupt adverse climate events (snow/ice storms and droughts drought) in 2008 - 2010 affected the growth of the Project adversely, combined with the poor site condition of the project and increasing cost for labours and seedlings, which leads the cash inflow of the Project is less and slow than the estimation in registered PDD while the planted cost is higher than estimation,

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
		significant area of the project. The snow/ice storms in early 2008 damaged 429.7 ha of plantation. 645.8 ha plantation were suffered from severe drought in 2010-2011. All these damaged young plantation had to be replanted. The re-established area suffered from the snow/ice storms or drought again. Furthermore, gap filling was conducted on a large area of young plantation after natural disaster (drought and snowstorm). The repeated planting has significantly increased the project cost. - Slow growth rate: For example, 35 tC/ha is expected to be accumulated for 4-year-old Eucalyptus in PDD estimation, however measurement indicates that carbon stock in living biomass of Eucalyptus planted in 2008 (project stratum 9) is only 17 tC/ha. The best growing birch plantation planted in 2008 (project stratum 11) has a carbon stock in living biomass 9.3 tC/ha, much lower than 12.1 tC/ha in PDD, and other birch plantations (project stratum 12-15 are much worse, even immeasurable at the monitoring (e.g., stratum 14 and 15). The growth of Choerospondias and flous are	thus additionality of the Project is not effected as the planted species change and the CL is closed.

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
		also slower than expectation. - In summary, the reduction of project revenue and increase of the project cost would reduce the project internal return rate compared with PDD. Therefore the change in the project area will not affect the additionality.	
CL-2 Please specify the changed species clearly in Table B.2 in MR.	B.2.6.1.2	The change of species and the result and the reasons of the change are specified clearly in the B.2 of MR.	As the baseline net removals is considered the same as the registered PDD, therefore it is conservative for the calculation of net anthropogenic GHG removals by sinks; As the change of the species planted results the less cash inflow and more planted cash cost, which doesn't affect the additionality of the Project, thus the CL is closed.
CL-3 The detailed sample and allocation process for the sample plots is required.	B.2.6.1.13	This has been described in detail in MR Section D.3 and the related evidences were provided to verification.	Bureau Veritas Certification checked the description in the updated MR and the evidences provided about the detailed sample and allocation process, confirmed the sample and allocation process for the sample plot is reasonable and can be re-

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
			produced, thus the CL is closed.
CL-4 The comparison of the boundary for the baseline scenario and the Project scenario is required.	B.2.6.1.14	The comparison of the boundary for the boundary scenario and the Project scenario are provided based on the GIS technology, and the comparison results are provided as picture.	Bureau Veritas Certification checked the difference between the baseline scenario and the Project scenario in the GIS combined with the site visit verification and found the boundary of the Project scenario is within the baseline scenario, thus the CL is closed.
CL-5 Please state the actual QA/QC procedure and the A/R CDM UNFCCC No. in Table B.2 of MR	B.2.6.1.15	The QA/QC procedures actual implemented have been described in MR section C.4 according to the actual situation suitable for the Project.	Bureau Veritas Certification checked the actual implemented QA/QC procedures for the Project against the evidences proved (such as the site-visit memo and the data measurements record and so on), and confirmed the description is consistent with the actual implemented QA/QC procedures, thus the CL is closed.
CL-6 Please present the calculation process of the $CTREE_{,t1}$ as there is no related information in PDD and MR.	C.1.6.1	The calculation process of the $C_{TREE,t1}$ is stated in the updated MR and related detailed calculation process based on registered PDD was provided.	Bureau Veritas Certification checked the specification of the calculation process of the parameter against the detailed calculation process based on

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
			registered PDD and confirmed the CL is closed.
CL-7 The EB51 Annex15 should be considered in the leakage calculation.	C.1.6.3	The MR has been revised according to EB51 Annex15. The leakage monitoring record for lands with pre-project grazing is provided.	Bureau Veritas Certification checked the record of the pre-project livestock in the registered PDD and found that all the pre-project livestock were displaced to existing grassland leakage monitoring record for lands with pre-project grazing and confirm the leakage of this monitoring period is zero according to the EB51 Annex15, thus the CL is closed.
CL-8 Clarification for the inconsistency of the value for the $Vtree_{,j,p,i,t}$ equitation between the PDD and the MR shall be provided.	D.1.2	$V_{TREE,j,p,i,t}$ in MR represents the parameter $V_{l,j,i,sp,t} = f(DBH, H)$ in PDD. This has been clarified in MR. one parameter of volume equation for eucalyptus in PDD (0.6259805) has a minor typo, the correct value is 0.65259805, which is consistent with the national forest inventory manual suitable for the eucalyptus planted in local region.	Bureau Veritas Certification checked the parameter $V_{TREE,j,p,i,t}$ against the parameter $V_{l,j,i,sp,t} = f(DBH, H)$ in registered PDD and the net GHG removal calculation, and confirm the two parameter are the same one. The typo for the eucalyptus volume equation in registered PDD can proved by the yield table and volume

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1 and table 2	Summary of project owner response	Verification team conclusion
			equation contained in the national forest inventory manual suitable for eucalyptus in Guangxi, CL-7-2 for Guangxi province, thus the CL is closed.